



AGENDA

Lower Cape Fear Water & Sewer Authority
1107 New Pointe Boulevard, Suite # 17, Leland, North Carolina
9:00 a.m. – Regular Monthly Board Meeting
February 14, 2022

MEETING CALL TO ORDER: Chairman Rivenbark

INVOCATION

PLEDGE OF ALLEGIANCE

APPROVAL OF CONSENT AGENDA

- C1** - Minutes of January 10, 2021, Regular Board Meeting
- C2** - Kings Bluff Monthly Operations and Maintenance Report
- C3** - Bladen Bluffs Monthly Operations and Maintenance Reports
- C4** - Line-Item Adjustment for January 31, 2022

OLD BUSINESS

- OB1** - Resolution for a Letter of Response to Financial Performance Areas of Concern for LGC

NEW BUSINESS

- NB1** - Resolution Awarding Annual Audit Contract for Fiscal Year Ending June 30, 2022, to Thompson • Price Scott • Adams & Co. P.A. in the Amount of \$8,000.00
- NB2** – Draft Master Plan for 25 Year Planning Period FY 2022-2046
- NB3 A** – Resolution of Lower Cape Fear Water & Sewer Authority Exempting Lower Cape Fear Water & Sewer Authority from The Provisions of N.C.G.S. §143-64.31 for Professional Consulting Engineering Services for Kings Bluff Air Backwash and Walkway System Alternative Evaluation
- NB3 B** – Resolution for Professional Consulting Engineering Services for Kings Bluff Air Backwash and Walkway System Alternative Evaluation
- NB4 A** – Resolution of Lower Cape Fear Water & Sewer Authority Exempting Lower Cape Fear Water & Sewer Authority from The Provisions of N.C.G.S. §143-64.31 for Professional Consulting Engineering Services for Existing 48” Aerial Crossing at Livingston Creek Structural Design for Access Platform
- NB4 B** – Resolution for Professional Consulting Engineering Services for Existing 48” Aerial Crossing at Livingston Creek Structural Design for Access Platform
- NB5** – Presentations by Tony Boahn guarding the 10-Mile Parallel Raw Water Main Preliminary Cost Estimates

ENGINEER’S COMMENTS

ATTORNEY COMMENTS

EXECUTIVE DIRECTOR REPORT

EDR1—Comments on Customers' Water Usage and Raw Water Revenue for Fiscal Year to Date Ending January 30, 2022

EDR2—Operating Budget Status, Ending December 31, 2021.

EDR3—Summary of Activities

DIRECTOR'S COMMENTS AND/OR FUTURE AGENDA ITEMS

PUBLIC COMMENT

ADJOURNMENT

The next board meeting of the Lower Cape Fear Water & Sewer Authority is scheduled for Monday, March 14th at 9:00 a.m. in the Authority's office located at 1107 New Pointe Boulevard, Suite 17, Leland, North Carolina.

AGENDA ITEM

To: CHAIRMAN LEONARD AND BOARD MEMBERS

From: TIM H. HOLLOMAN, EXECUTIVE DIRECTOR

Date: February 14, 2022

Re: Consent Agenda

Reviewed and approved as to form: MATTHEW A. NICHOLS, AUTHORITY ATTORNEY

Please find enclosed the items of a routine nature for consideration and approval by the Board of Directors with one motion. However, that does not preclude a board member from selecting an item to be voted on individually, if so desired.

C1- Minutes of January 10, 2022, Regular Board Meeting

C2- Kings Bluff Monthly Operations and Maintenance Report

C3- Bladen Bluffs Monthly Operations and Maintenance Report

C4- Line Item Adjustment for January 31, 2022

Action Requested: Motion to approve/disapprove Consent Agenda.

Lower Cape Fear Water & Sewer Authority
Regular Board Meeting Minutes
January 10th, 2022

Chairman Rivenbark called to order the Authority meeting scheduled on January 10th, 2022, at 9:00 a.m. and welcomed everyone present. The meeting was held at the Authority's office located at 1107 New Pointe Boulevard, Suite 17, Leland, North Carolina. Director Leonard gave the invocation.

Roll Call by Chairman Rivenbark:

Present: Norwood Blanchard, Patrick DeVane, Wayne Edge, Harry Knight, Al Leonard, Jackie Newton, Phil Norris, Scott Phillips, Charlie Rivenbark, Chris Smith, Bill Sue, Frank Williams, and Rob Zapple

Present by Virtual Attendance: Bill Saffo

Absent: None

Staff: Tim H. Holloman, Executive Director; Matthew Nichols, General Counsel; Tony Boahn P.E., McKim & Creed, Patrick Flanagan, COG; Joshua Trouton, Computer Warriors; Jordan Clark, Computer Warriors, and Danielle Hertzog, Financial Administration Assistant

Guests Present: Heidi Cox, NC DEQ Regional Engineering Supervisor, Division of Water Infrastructure; Ken Waldroup Cape Fear Public Utility Authority Executive Director and Austin Eubanks, Thompson, Price, Scott, Adams & Co., P.A.

Guests Virtual Attendance: Kenny Keel Pender County Public Utilities Director; Matt Hourihan, Cape Fear Public Utility Authority Assistant Operations Director; Tim Hendrick, Pender County Utilities; Glenn Walker, Brunswick County Water Resources Manager; John Nichols, Brunswick County Public Utilities Director; John Malone, Cape Fear Public Utility Authority Water Resources Manager and Johanna Ferebee Still, Wilmington Business Journal

PLEDGE OF ALLEGIANCE: Chairman Rivenbark led the Pledge of Allegiance.

APPROVAL OF CONSENT AGENDA

C1 - Minutes of December 13, 2021, Regular Board Meeting

C4 - Bladen Bluffs Monthly Operations and Maintenance Reports

C5 - Line-Item Adjustment

Motion: Director Leonard **MOVED**; seconded by Director Zapple, approval of the Consent Agenda Items C1, C4, and C5 as presented. Upon vote, the **MOTION CARRIED UNANIMOUSLY**.

	For	Against	Abstained	Absent
Norwood Blanchard	X			
Wayne Edge	X			
Patrick DeVane	X			
Harry Knight	X			
Al Leonard	X			
Jackie Newton	X			
Phil Norris	X			
Scott Phillips	X			
Charlie Rivenbark	X			
Bill Saffo			X	
Chris Smith	X			
Bill Sue	X			
Frank Williams	X			
Rob Zapple	X			
	13	0	1	0

C2 - Minutes of December 13th, 2021, Long Range Planning Committee Meeting

Director Zapple requested Consent Agenda item C2 with three updates. KB8 states it will need to be installed before the fifth tank comes online. Director Zapple wanted to confirm it is for a fifth tank or pump, and Executive Director Holloman advised it should be installed before the fifth pump comes online. Under item KB13, the wrong word

Holloman advised it should be installed before the fifth pump comes online. Under item KB13, the wrong word states run times of exiting pumps, and Director Zapple wanted to confirm it should be exiting or existing pump. Executive Director Holloman, it should be existing. Last for item KB15 does not have a critically score is listed. Per Tony, the critically score should be a one.

C3 - Kings Bluff Monthly Operations and Maintenance Reports

Director Zapple requested additional information on Consent Agenda item C3 Kings Bluff monthly maintenance report for the last statement of KB personnel alerted management about possible mining activities on the ROW between Pender WTP and Hwy 421. Tony Boahn advised the operation staff noticed some movement on the Sand Mine site on Hwy 421 hear the fishing creek. Mr. Boahn contacted the Sand Mine owner, and the owner advised it would be six to eight months before they do any mining activity. Tony's concern is that they are installing access across the pipeline. Sand Mine owner understands that and will work with McKim & Creed to establish a proper road over the pipeline to avoid any damage to the pipeline.

Motion: Director Zapple **MOVED**; seconded by Director Williams, approval of the Consent Agenda Items C2 and C3 as presented. Upon vote, the **MOTION CARRIED UNANIMOUSLY**.

	For	Against	Abstained	Absent
Norwood Blanchard	X			
Wayne Edge	X			
Patrick DeVane	X			
Harry Knight	X			
Al Leonard	X			
Jackie Newton	X			
Phil Norris	X			
Scott Phillips	X			
Charlie Rivenbark	X			
Bill Saffo	X			
Chris Smith	X			
Bill Sue	X			
Frank Williams	X			
Rob Zapple	X			
	14	0	0	0

PRESENTATION TO: Al Leonard, Columbus County Representative, by Chairman Rivenbark

Chairman Rivenbark presented Director Leonard with a plaque in recognition and appreciation for his distinguished service to the Authority for serving as Chairman in 2021.

NEW BUSINESS

NB1 – Presentation of Annual Audit Report for Fiscal Year Ending June 30, 2021 (Thompson, Price, Scott, Adams & Co., P.A.)

Mr. Austin Eubanks reviewed a PowerPoint summarization of the audit report, a copy of which is hereby incorporated as part of these minutes. He explained the primary task of the audit firm is to reach an opinion on the financial statements as a whole. The audit findings resulted in an unmodified opinion of a clean report with no material misstatements with a net position of increase in assets by over one million dollars. He reported the records are in good order, and all required audit procedures were performed with complete access to management and information without any limitations. There were no instances of material errors, misrepresentation, or non-compliance. He reviewed a summary of essential audit items, including cash/cash equivalents, total revenue, and total expenses. Mr. Eubanks did advise we have one item that does require additional communications. That item is operating net income (loss) excluding depreciation plus debt service principal. This is a new audit process that LGC added this year. Mr. Eubanks advised we can request LGC to include Smithfield's agreement in the operational revenues, which will remove the deficit. The statement for LGC announced a negative balance indicates that your rates are not covering your operating expenditures.

Executive Director Holloman wanted it noted a hard copy or PDF file of the *Annual Financial Report for the Year Ended June 30, 2021*, is available upon request.

Motion: Director Zapple **MOVED**; seconded by Director Williams, approval of the Annual Audit Report for Fiscal Year Ending June 30, 2021. Upon vote, the **MOTION CARRIED UNANIMOUSLY**.

	<u>For</u>	<u>Against</u>	<u>Abstained</u>	<u>Absent</u>
Norwood Blanchard	X			
Wayne Edge	X			
Patrick DeVane	X			
Harry Knight	X			
Al Leonard	X			
Jackie Newton	X			
Phil Norris	X			
Scott Phillips	X			
Charlie Rivenbark	X			
Bill Saffo	X			
Chris Smith	X			
Bill Sue	X			
Frank Williams	X			
Rob Zapple	X			
	14	0	0	0

In cooperation with our auditors, Director Leonard motioned to have Executive Director Holloman write to the local government commission and ask for Smithfield revenues to be included in the LGC operating revenue.

Motion: Director Leonard **MOVED**; seconded by Director Newton, approval Executive Director cooperation with auditors and LGC. Upon vote, the **MOTION CARRIED UNANIMOUSLY**.

	<u>For</u>	<u>Against</u>	<u>Abstained</u>	<u>Absent</u>
Norwood Blanchard	X			
Wayne Edge	X			
Patrick DeVane	X			
Harry Knight	X			
Al Leonard	X			
Jackie Newton	X			
Phil Norris	X			
Scott Phillips	X			
Charlie Rivenbark	X			
Bill Saffo	X			
Chris Smith	X			
Bill Sue	X			
Frank Williams	X			
Rob Zapple	X			
	14	0	0	0

NB2 - Appointment of FY 2022-2023 Finance Committee by Chairman Rivenbark

Chairman Rivenbark noted the members he appointed to the Finance Committee for the fiscal year 2022-2023, including:

Charlie Rivenbark, Chairman
 Patrick DeVane
 Norwood Blanchard
 Chris Smith
 Phil Norris
 Al Leonard

NB3 - Appointment of FY 2022-2023 Personnel Committee by Chairman Rivenbark

Chairman Rivenbark noted the members he appointed to the Personnel Committee for the fiscal year 2022-2023, including:

Charlie Rivenbark, Chairman
 Wayne Edge
 Jackie Newton
 William Sue
 Mayor Bill Saffo
 Al Leonard
 Harry Knight
 Matt Nichols

NB4 - Appointment of FY 2022-2023 Long Range Planning Committee by Chairman Rivenbark

Chairman Rivenbark noted the members he appointed to the Long-Range Planning Committee for the fiscal year 2022-2023, including:

Charlie Rivenbark, Chairman
 Patrick DeVane
 Norwood Blanchard
 Rob Zapple
 Frank Williams
 Al Leonard
 Harry Knight
 John Nichols
 Ken Waldroup
 Kenny Keel

Motion: Director Williams **MOVED**; seconded by Director Blanchard, approval of NB2, NB3, and NB4. Upon vote, the **MOTION CARRIED UNANIMOUSLY**.

	For	Against	Abstained	Absent
Norwood Blanchard	X			
Wayne Edge	X			
Patrick DeVane	X			
Harry Knight	X			
Al Leonard	X			
Jackie Newton	X			
Phil Norris	X			
Scott Phillips	X			
Charlie Rivenbark	X			
Bill Saffo	X			
Chris Smith	X			
Bill Sue	X			
Frank Williams	X			
Rob Zapple	X			
	14	0	0	0

NB5 – Resolution of Proposal for Professional Consulting Engineering Services for the NC Division of Water Infrastructure State Revolving Fund Application Preparation

Tony Boahn advised he and Executive Director Holloman have recognized the stimulus funding available for the current and upcoming cycles. They both agreed it made sense to submit to see what funding we could get to complete items on the capital project list. The proposal is through the Division of Water Infrastructure State Revolving Fund Loans, and they have two cycles per year. This proposal is for three applications for the May 2, 2022, deadline. It will include Kings Bluff Pump Station Air Backwash Buildings & Walkway Replacement, Kings Bluff Pump Station 4th Pump Addition, and Kings Bluff Pump Station Standby Generator Replacement. After the applications have been submitted, we could resubmit with a simple letter if LCFWASA does not get the funding. Director Knight wanted to know the total cost of all three projects. Mr. Boahn confirmed the amount is around twelve million. Director DeVane questioned if these were cost estimates or engineering projects. Tony Boahn stated the application would have the financial background, justification, and a cost estimate that an engineer must seal to go in each of those three separate

applications. General Counsel Matthew Nichols advised he looked over the eight deletions in the General Conditions, and he does not have any concerns with them.

Motion: Director Blanchard **MOVED**; seconded by Director Williams, approval of NBD 5 Resolution of Proposal for Professional Consulting Engineering Services for the NC Division of Water Infrastructure State Revolving Fund Application Preparation. Upon vote, the **MOTION CARRIED UNANIMOUSLY**.

	<u>For</u>	<u>Against</u>	<u>Abstained</u>	<u>Absent</u>
Norwood Blanchard	X			
Wayne Edge	X			
Patrick DeVane	X			
Harry Knight	X			
Al Leonard	X			
Jackie Newton	X			
Phil Norris	X			
Scott Phillips	X			
Charlie Rivenbark	X			
Bill Saffo	X			
Chris Smith	X			
Bill Sue	X			
Frank Williams	X			
Rob Zapple	X			
	14	0	0	0

A) Resolution of Lower Cape Fear Water & Sewer Authority Exempting Lower Cape Fear Water & Sewer Authority from The Provisions of N.C.G.S. §143-64.31

Under North Carolina law, when a public entity such as the Authority solicits bids from engineers, surveyors, and architects, they must go through a request for proposal process where the applicants' qualifications are considered without consideration of price. However, if the projected cost of the service is less than \$50,000.00, the entity has the right to exempt itself from that process. Approval of the presented resolution waives this requirement for a proposal submitted by McKim & Creed per proposal 214402 in the fixed fee amount of \$8,250.00 for the above funding applications process through the N.C.D.E.Q. Division of Water Infrastructure (D.W.I.) Clean Water State Revolving Fund (C.W.S.R.F.)

Motion: Director Leonard **MOVED**; seconded by Director Knight, approval Exempting LCFWASA from the Provisions of N.C.G.S. §143-64.31. Upon vote, the **MOTION CARRIED UNANIMOUSLY**.

	<u>For</u>	<u>Against</u>	<u>Abstained</u>	<u>Absent</u>
Norwood Blanchard	X			
Wayne Edge	X			
Patrick DeVane	X			
Harry Knight	X			
Al Leonard	X			
Jackie Newton	X			
Phil Norris	X			
Scott Phillips	X			
Charlie Rivenbark	X			
Bill Saffo	X			
Chris Smith	X			
Bill Sue	X			
Frank Williams	X			
Rob Zapple	X			
	14	0	0	0

ENGINEER'S COMMENTS

Tony Boahn detailed a pending change order number two; however, this will be a zero-budget change. A few items in the contract have not been used, resulting in a zero-budget change. Historically you spend 2 to 3% on a change order, and this project is at 0.18%. Mr. Boahn advised this speaks volumes to Cape Fear Public Utilities Authority management working continuously with Brunswick County, Pender County, and McKim & Creed. The current schedule has been adjusted slightly since the leak. The first phase was completed on October 29, 2021, with the 54-inch main. Phase two is the interconnections and pressure reducing valves by April 26, 2022, with the original schedule being May 2022; therefore, the contractor is still one month ahead of schedule. Completion will be May or June 2022, with the original plan being August 2022.

Tony Boahn advised the leak in the 48" pipeline is located at the southwest side of the Cape Fear River just behind the former DAK site built back in the early nineties. Mr. Boahn advised two hundred feet needed to be replaced as of the meeting; one hundred and sixty feet has been replaced. The proposal was to have all two hundred feet replaced; however, the king tides have occurred, and we had rain. This caused this area to flood, and we had to wait for the water to subside. After five days of operational testing, the bypass will be removed, and cleanup will begin, which could take two to three weeks. Director Knight questioned if the pipeline around the break is still a concern. Tony Boahn advised they locate record drawings that indicated that the pipeline is a restrained joint pipe in his area. The broken pipe was not a restrained joint, so those record drawings are very positive. Director Zapple asked if there was any thought of leaving the bypass in place rather than taking it out. Mr. Boahn advised they had thought about this in the past and currently, but the cost is extremely expensive. Director Zapple questioned how you get the water out of the pipe to complete the repair and wanted to confirm the location of most concern with this current pipeline. Tony advised you pump the water out, and the site of reference is behind DAK where the pipeline turns and drops off immediately into a low wet area. Director Sue questioned who is paying for the repair and cost to date. Executive Director Tim Holloman advised between 2.2 and 2.4 million. Currently, Brunswick County is footing the bill; however, an upcoming meeting with the county directors is planned for suggestions on how to repay Brunswick County. Director Sue questioned if the remaining line could be inspected. Mr. Boahn advised we cannot inspect the line because we must take the line down to inspect it. Chairman Rivenbark wanted to know the estimated cost if we had a break under the river. Tony Boahn advised it would be double or triple the current repair cost. Also, if the leak occurred during a peak summer season, we would not serve customers to meet their demands.

Director Smith questioned if LCFWASA could get funding would the new pipeline be paralleled as discussed in December 2021. Tony Boahn stated yes, he would like to have the pipeline parallel for the additional eleven miles.

ATTORNEY COMMENTS

No comments

EXECUTIVE DIRECTOR REPORT

EDR1 – Comments on Customers' Water Usage and Raw Water Revenue for Fiscal Year to Date Ending December 31, 2021

Executive Director Holloman reported that during the month of December 2021, Brunswick County and Pender County were above projections. CFPWA were below projections due to the leak. Monthly revenue was slightly up last month.

DIRECTOR'S COMMENTS AND/OR FUTURE AGENDA ITEMS

Chairman Rivenbark would like an aerial photo of Kings Bluff and Bladen Bluff.

PUBLIC COMMENT

Ken Waldroup advised CFPWA is working closely with Executive Holloman to find ways to support the grant application and each director has written a letter of support.

ADJOURNMENT

There being no further business, Chairman Leonard adjourned the meeting at 10:07 a.m.

Respectfully Submitted:

Harry Knight, Secretary

Lower Cape Fear Water and Sewer Authority

Audit Presentation

For the Year Ended June 30, 2021



Thompson, Price, Scott, Adams & Co., P.A.
4024 Oleander Drive Suite 3
Wilmington, North Carolina 28403
Telephone (910) 791-4872
Fax (910) 239-8294



Lower Cape Fear Water and Sewer Authority

Board Meeting

- Presentation of Audit Results
- I. General Comments
- II. Required Communications
- III. Audit Results
- IV. Questions and Comment
- V. Close



Lower Cape Fear Water and Sewer Authority

Required Communications

Requirement

Results

- 1 Responsibilities Under Generally Accepted Auditing Standards, Government Auditing Standards, OMB Uniform Guidance, and the State Single Audit Implementation Act.

Design the audit to provide reasonable assurance that the financial statements are free of material error and in compliance with government regulations.

- Accomplished. No material error noted.

Perform all planned procedures and have complete access to both management and required information.

- Completed. Our work was not limited in any way.

Communicate significant deficiencies in the internal control.

- None.



Lower Cape Fear Water and Sewer Authority

Required Communications (*continued*)

Requirement

Results

2 Adoption or Change in Accounting Policies

Communicate the initial adoption of or a change in an accounting principle which had or is expected to have a significant effect on the financial statements.

☐ None noted.

3 Management Judgment and Accounting Estimates

Assess methodologies used and basis of evidence for matters requiring judgments and estimates.

☐ Methodologies used and evidence considered appear to have led to reasonable amounts being included in the financial statements.

4 Significant Audit Adjustments or Unrecorded Differences

Communicate significant recorded and unrecorded differences.

☐ None out of the normal course.



Lower Cape Fear Water and Sewer Authority

Required Communications (*continued*)

Requirement

Results

5 Disagreements with Management

Communicate any disagreements on financial or reporting matters that, if not satisfactorily resolved, would cause a modification of our report.

☐ None.

6 Consultation with Other Accountants

Communicate consultation that took place with other accountants.

☐ None noted.

7 Prior to Retention Issues

Communicate any major issues that management discussed with the auditor in connection with the retention of the auditor, including the application of accounting principles and auditing standards.

☐ None.



Lower Cape Fear Water and Sewer Authority

Required Communications (*continued*)

Requirement

Results

8 Significant Difficulties

Any serious difficulties the auditor encountered in dealing with management such as unreasonable delays in providing needed information, unreasonable timetable set by management, or unavailability of client personnel.

☐ None noted.

9 Irregularities and Illegal Acts

Communicate the existence of any material irregularities and/or illegal acts determined during the audit.

☐ None noted.



Lower Cape Fear Water and Sewer Authority

Dear Board Members:		
Below is a summarization of some of the key items in the audit report.		<u>2021</u>
Cash and cash equivalents	\$	2,867,786
Total Revenues (Including Operating and Nonoperating)	\$	5,692,685
Total Expenditures (Including Operating and Nonoperating)	\$	5,023,327
Net Change for year	\$	669,358
Net position, beginning of year	\$	24,024,407
Net position, end of year	\$	24,693,765



Lower Cape Fear Water and Sewer Authority

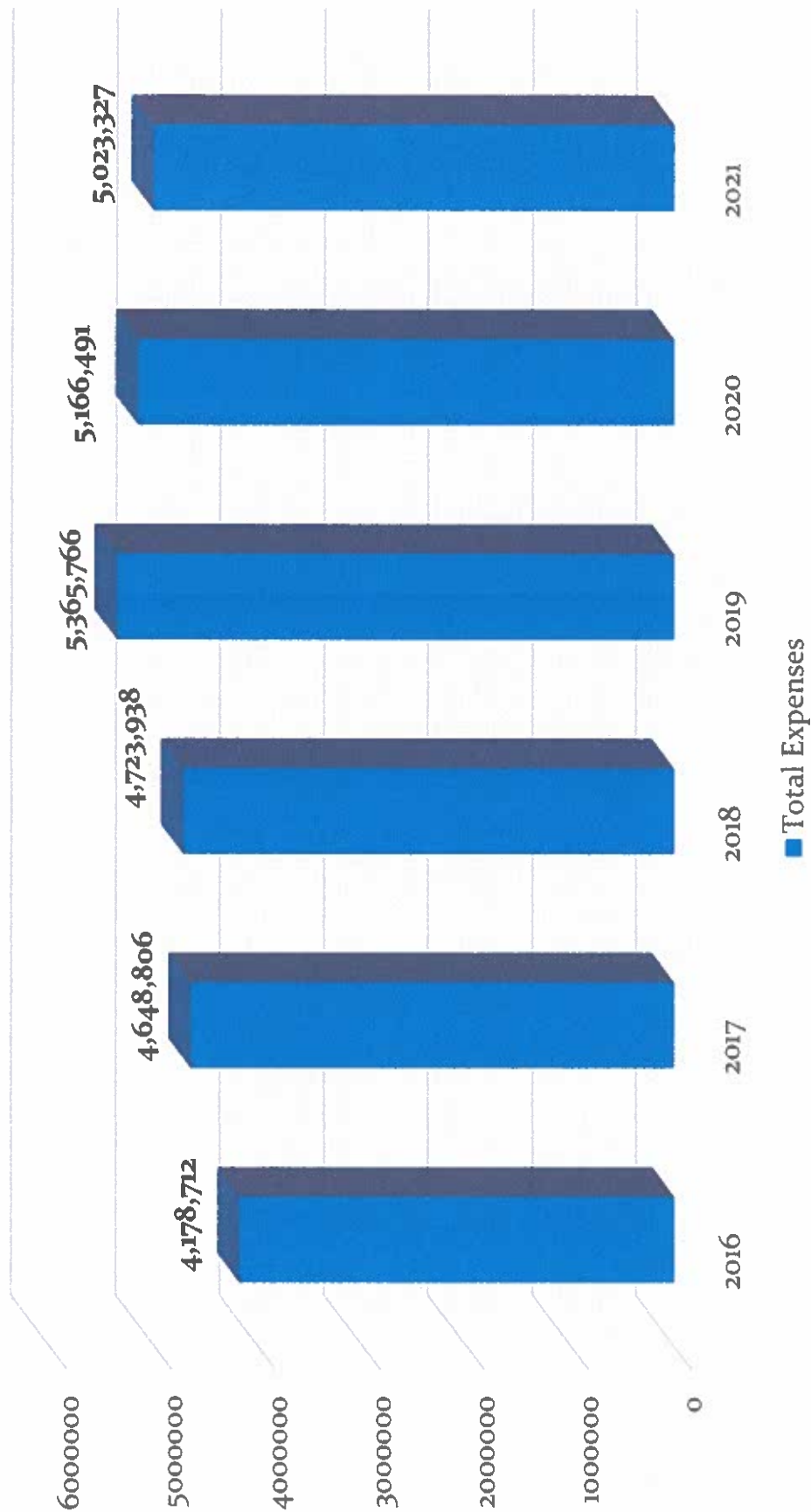
Analysis of Revenue by Year





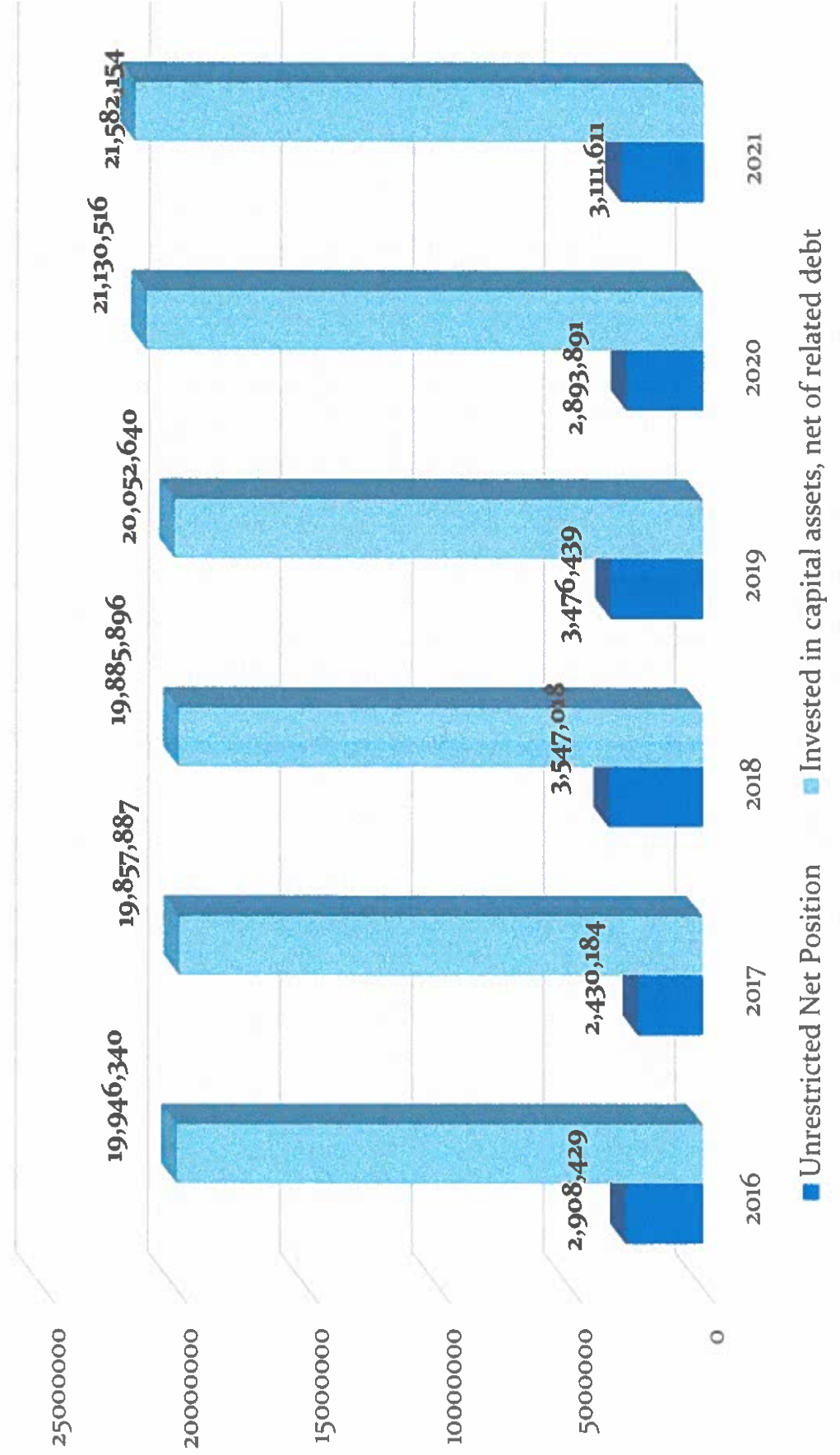
Lower Cape Fear Water and Sewer Authority

Analysis of Expenses by Year



Lower Cape Fear Water and Sewer Authority

Analysis of Net Position By Year



ADDITIONAL REQUIRED COMMUNICATIONS

Changes to the Audit Process

The Local Government Commission (LGC) will no longer initiate communications about concerns or findings (formerly considered unit letters). They have created a spreadsheet that has to be completed and submitted with the audit report. If that worksheet identifies what they consider a "Financial Performance Indicators of Concern" (FPICs), we are required to communicate those items to the Board.

You are required to submit a response within 60 days of the Board meeting in which the financial statements are presented. The detailed audit response should be presented to the entire Board, and signed by the entire Board, Finance Officer, and Manager.

The following FPIC's were identified on the LGC's transmittal document that we are required to notify you about:

FINANCIAL PERFORMANCE INDICATORS OF CONCERN:

	2019	2020	2021	Minimum Threshold	Unit Results	
Operating Net Income (loss) excluding depreciation & debt service principal	\$ (581,838)	\$ (613,992)	\$ (476,703)	Greater than zero	\$ (476,703)	This calculation subtracts operating expenses (which also includes depreciation and debt principal paid) from operating revenues. A negative balance indicates that your rates are not covering your operating expenses.



Thank You for the
Opportunity to Work
With You!

COUNTY OF BRUNSWICK
PUBLIC UTILITIES DEPARTMENT
Kings Bluff Pump Station



246 Private Road
Riegelwood, NC 28456
(910) 655-4799 Office
(910) 655-4798 FAX

TO: Tim Holloman

FROM: Jack Hogan

DATE: 1/31/2022

SUBJECT: Monthly maintenance report for January 2022

Mr. Holloman,

The Maintenance and Operations of the king's bluff facility for the month of January were performed as prescribed in the station SOP'S and other items are as follows.

The diesel drive booster pumps along with the standby SCADA generator located at the raw tank and the SCADA generator located at INVISTA / CFPUA vaults off HWY 421 were run and tested weekly and verified standby ready.

KB personnel completed all locates issued by the 811 system.

KB personnel are working with all personnel involved on the line break repair and bypass line.

KB personnel setup valves at the raw tank for Garney to complete the crossover between the 48" and new 54" discharge lines.

KB personnel completed oil change and tire rotation on Authority truck 2021 GMC 3500.

KB personnel completed PM and testing of the # 1 & 2 EMD generators in anticipation of possible winter power curtailment with Duke Energy.

KB personnel worked with SU on return to Kings Bluff the HDPE pipe used as the bypass at the line break and the ductile pipe removed from the area.

KB personnel are working with Garney on shutdown to repair leak on the bypass assembly that leaked after the line was put back in service.

Contractors:

BFPE completed yearly fire extinguisher inspection for the Kings Bluff Pump Station.

Thank you,
Jack Hogan



To: Tim Holloman - LCFWASA

From: James Kern – Bladen Bluffs SWTP ORC

Date: 2/4/22

Subject: January 2022 Operations

During the month of January, Bladen Bluffs SWTP operated a total of 20 days, treating 41.95 million gallons of water.

We used:

40,835 lbs. of aluminum sulfate (Alum)

10,355 lbs. of sodium hydroxide (Caustic)

840 lbs. of sodium hypochlorite (1,687 gallons of 6% Chlorine Bleach)

James Kern
Water Treatment Plant
Supervisor

Smithfield
Good food. Responsibly.®

(910) 862-3114
(910) 862-3146
(910) 733-0016 mobile
jkern@smithfield.com

Bladen Bluffs Surface Water Treatment
Plant
17014 Highway 87 West
Tar Heel, NC 28392
www.smithfieldfoods.com

Bladen Bluffs SWTP Maintenance Report

Date: 2/4/2022

ISSUE:

PLAN OF ACTION:

Air on finished water line (from GAC)	Installed trial valves – testing next week
Running spare cl2 lines to settled/finished	Quote approved – scheduling work
Sump pump check valve needs replacement	Scheduled repair
All PLC need updated	Getting quotes
Ordering backup drives for all pumps	Ordered
Valve broken on eyewash	Repair in Progress
NPDES lagoon #1 need mud cleaned out	In Progress
Settle basins need cleaned	Scheduling – Weather Dependent

Monthly Operating Reports (MORs) Summary

(No user data entry – all values are auto-populated.)

Year: 2022 PWS Name: Bladen Bluffs Water System PWSID#: NC5009012
 Month: January Facility Name: Bladen Bluff

Combined Filter Effluent (CFE) Turbidity

Samples exceeding 1 NTU (count):	<u>0</u>	Number of samples required:	<u>106</u>
Samples exceeding .3 NTU (count):	<u>0</u>	Number of samples taken:	<u>106</u>
Samples exceeding .3 NTU (pct):	<u>0.0%</u>	Highest single turbidity reading NTU:	<u>0.156</u>
		Monthly average turbidity NTU:	<u>0.108</u>

Individual Filter Effluent (IFE) Turbidity

1) Was each filter <u>continuously</u> monitored for turbidity?	Yes	<u>X</u>	No	<u></u>
2) Was each filter's monitoring results <u>recorded every 15 minutes</u> ?	Yes	<u>X</u>	No	<u></u>
3) Was there a failure of the continuous turbidity monitoring equipment?	Yes	<u></u>	No	<u>X</u>
4) Was any individual filter turbidity level > 1.0 NTU in two consecutive measurements ?	Yes	<u></u>	No	<u>X</u>
5) Was any individual filter turbidity level > 0.5 NTU in two consecutive measurements at the end of 4 hours of operation after the filter has been backwashed or otherwise taken offline ?	Yes	<u></u>	No	<u>X</u>
6) Was any individual filter turbidity level > 1.0 NTU in two consecutive measurements in each 3 consecutive months ?	Yes	<u></u>	No	<u>X</u>
7) Was any individual filter turbidity level > 2.0 NTU in two consecutive measurements in 2 consecutive months ?	Yes	<u></u>	No	<u>X</u>

Entry Point Residual Disinfectant Concentration (EPRD)

Disinfectant Used	<u>Chlorine</u>	Number of samples required	<u>106</u>
Minimum EPRD concentration	<u>0.9400</u>	Number of samples taken	<u>106</u>

Distribution Residual Disinfectant Concentration

Number of samples under 0.010 mg/L (without any detectable) excluding where HPC is ≤ 500/mL	<u>0</u>
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Contact Time (CT) Ratio

Lowest CT ratio reading	<u>10.54</u>	Number of CT ratios required	<u>20</u>
Number of CT ratios below 1.0	<u>0</u>	Number of CT ratios calculated	<u>20</u>

Remarks From General Info Worksheet

☒ By checking this box, the ORC certifies that the requirements of 15A NCAC 18C .1301 "General Requirements", .1302 "Tests, Forms, and Reporting", and .1303 "Facility Oversight" have been met for the month of January, 2022 and that records documenting compliance with this rule are maintained on the premises and available for inspection upon request.

CONSENT AGENDA (CA-4)**Lower Cape Fear Water & Sewer Authority**

CONSENT ITEM- Background: Line-Item adjustments are made to more closely align revenues and expenditures to actuals without exceeding or decreasing the approved or amended budget

LINE-ITEM ADJUSTMENTS FOR 01/31/22

Operating Fund:	Line-Item Budget Amount prior to Adjustment	Decrease	Increase	Budget Amount as of 01/31/2022
REVENUE				
EXPENSES				
4055-01 Office Maintenance/Repair	\$ 17,000		\$ 5,000	\$ 22,000
4062-01 Office Equipment	\$ 8,000		\$ 2,000	\$ 10,000
4080-01 Miscellaneous Expenses	\$ 20,000		\$ 3,000	\$ 23,000
4058-01 Office Utilities	\$ 7,000	\$ (4,000)		\$ 3,000
4520-01 Utilities Pump Station	\$ 781,667	\$ (6,000)		\$ 775,667
Total	6,372,523	\$(10,000)	\$10,000	\$ 6,372,523

AGENDA ITEM

To: CHAIRMAN RIVENBARK AND BOARD MEMBERS

From: TIM H. HOLLOMAN, EXECUTIVE DIRECTOR

Date: February 14, 2022

Re: Resolution for a Letter to Local Government Commission as advised by
Auditors

Reviewed and approved as to form: MATTHEW A. NICHOLS, AUTHORITY ATTORNEY

Background: When TSPA came to give the FY 2020-2021 audit review, they advised that we need to send a letter to LGC asking to move the Smithfield agreement from non-operating revenue to Operating Revenue to show a truly accredited financial status.

Action Requested: Motion to approve/disapprove Consent Agenda

**Resolution for a Letter of Response due to Financial Performance Areas of Concern
for Local Government Commission as advised by Auditors**

Whereas, on January 10, 2022, the Board of Directors of the Lower Cape Fear Water and Sewer Authority (the Authority) approved the Executive Director to write a letter to the Local Government Commission as advised by the Auditors Thompson, Price, Scott, Adams & Co., PA; and

Whereas, to requestion the Local Government Commission to let Lower Cape Fear Water and Sewer Authority move the Smithfield agreement fund from non-operating revenue to Operating Revenue. This request is to show that all future audits reflect our actual financial status and operating practices; and

This Resolution Adopted this 14th day of February 2022.

Charlie Rivenbark, Chairman

ATTEST:

Harry Knight, Secretary

Norwood Blanchard, Vice-Chairman

Patrick, DeVane, Treasurer

Phil Norris, Assistant Treasurer

Wayne Edge, Director

Al Leonard, Director

Jackie Newton, Director

Scott Phillips, Director

Bill Saffo, Director

Chris Smith, Director

Bill Sue, Director

Frank Williams, Director

Rob Zapple, Director

Dear LGC Staff:

Currently, the calculation for revenues does not include the Authority's revenues as reimbursement for actual expenditures and paints a misleading picture of Authority finances.

We ask that we be allowed to include what is guaranteed by our agreement with Smithfield for future audits. This reflects an accurate picture of our actual financial status and operating practices.

Current Calculation

Operating Revenue	\$4,555,994	
Operating Expenses	(4,947,059)	
Operating Loss	(391,065)	
Depreciation	1,658,635	Non Cash
Principal Payments	(1,744,273)	Cash spent not captured in operating expenses
	<u>\$ (476,703)</u>	

Proposed Future Calculation

Operating Revenue	\$4,555,994	
Smithfield Agreement (Non-operating)	814,276	
Operating Expenses	(4,947,059)	
Operating Loss	423,211	
Depreciation	1,658,635	Non Cash
Principal Payments	(1,744,273)	Cash spent not captured in operating expenses
	<u>\$ 337,573</u>	

Please consider this our official response to the Financial Performance Indictors of concern.

Cordially,

Tim H Holloman

Executive Director

Lower Cape Fear Water & Sewer Authority

AGENDA ITEM

To: CHAIRMAN RIVENBARK AND BOARD MEMBERS

From: TIM H HOLLOMAN EXECUTIVE DIRECTOR

Date: February 14, 2022

Re: Resolution Awarding Annual Audit Contract for Fiscal Year Ending June 30, 2022 to Thompson • Price • Scott • Adams & Co. P.A. in the Amount of \$8,000.00

Please find enclosed the annual audit contract for the preparation of the Authority's audit and financial statements for fiscal year ending June 30, 2022.

Action Requested: Motion to approve/disapprove:

Resolution Awarding Annual Audit Contract for Fiscal Year Ending June 30, 2022, to Thompson • Price • Scott • Adams & Co. P.A. in the Amount of \$8,000.

**Resolution Awarding Annual Audit Contract for
Fiscal Year Ending June 30, 2022 to Thompson•Price•Scott•Adams & Co. P.A.
In the Not to Exceed Amount of \$8,000.00**

Whereas, each unit of local government shall have its accounts audited as soon as possible after the close of each fiscal year by a Certified Public Accountant;

Now Therefore Be It Resolved, that the Board of Directors for the Lower Cape Fear Water & Sewer Authority awards the annual auditing contract to the firm Thompson•Price•Scott•Adams & Co. P.A. in the amount of \$8,000.00 to audit the accounts of the Authority and to prepare the financial statements for the fiscal year ending June 30, 2022.

Furthermore, the Board designates that the Chairman and the Executive Director for the Authority are duly authorized to execute the contract on behalf of the Authority.

Adopted this 14th day of February, 2022

Charlie Rivenbark, Chairman

ATTEST:

Harry Knight, Secretary

LGC-205

CONTRACT TO AUDIT ACCOUNTS

Rev. 11/2021

The	Governing Board
of	Primary Government Unit Lower Cape Fear Water & Sewer
and	Discretely Presented Component Unit (DPCU) (if applicable) NA

Primary Government Unit, together with DPCU (if applicable), hereinafter referred to as Governmental Unit(s)

and	Auditor Name Thompson, Price, Scott, Adams & Co., PA
	Auditor Address 4024 Oleander Dr., Suite 103, Wilmington, NC 28403

Hereinafter referred to as Auditor

for	Fiscal Year Ending 06/30/22	Audit Report Due Date 10/31/2022
-----	--------------------------------	-------------------------------------

Must be within four months of FYE

hereby agree as follows:

1. The Auditor shall audit all statements and disclosures required by U.S. generally accepted auditing standards (GAAS) and additional required legal statements and disclosures of all funds and/or divisions of the Governmental Unit(s). The non-major combining, and individual fund statements and schedules shall be subjected to the auditing procedures applied in the audit of the basic financial statements and an opinion shall be rendered in relation to (as applicable) the governmental activities, the business- type activities, the aggregate DPCUs, each major governmental and enterprise fund, and the aggregate remaining fund information (non-major government and enterprise funds, the internal service fund type, and the fiduciary fund types). The basic financial statements shall include budgetary comparison information in a budgetary comparison statement, rather than as RSI, for the General Fund and any annually budgeted Special Revenue funds.
2. At a minimum, the Auditor shall conduct the audit and render the report in accordance with GAAS. The Auditor shall perform the audit in accordance with *Government Auditing Standards* if the Governmental Unit expended \$100,000 or more in combined Federal and State financial assistance during the reporting period. The auditor shall perform a Single Audit if required by Title 2 US Code of Federal Regulations Part 200 *Uniform Administration Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance) or the State Single Audit Implementation Act. This audit and all associated audit documentation may be subject to review by Federal and State agencies in accordance with Federal and State laws, including the staffs of the Office of State Auditor (OSA) and the Local Government Commission (LGC). If the audit requires a federal single audit in accordance with the Uniform Guidance (§200.501), it is recommended that the Auditor and Governmental Unit(s) jointly agree, in advance of the execution of this contract, which party is responsible for submission of the audit and the accompanying data collection form to the Federal Audit Clearinghouse as required under the Uniform Guidance (§200.512).

If the audit and Auditor communication are found in this review to be substandard, the results of the review may be forwarded to the North Carolina State Board of CPA Examiners (NC State Board).

3. If an entity is determined to be a component of another government as defined by the group audit standards, the entity's auditor shall make a good faith effort to comply in a timely manner with the requests of the group auditor in accordance with AU-6 §600.41 - §600.42.

4. This contract contemplates an unmodified opinion being rendered. If during the process of conducting the audit, the Auditor determines that it will not be possible to render an unmodified opinion on the financial statements of the unit, the Auditor shall contact the LGC Staff to discuss the circumstances leading to that conclusion as soon as is practical and before the final report is issued. The audit shall include such tests of the accounting records and such other auditing procedures as are considered by the Auditor to be necessary in the circumstances. Any limitations or restrictions in scope which would lead to a qualification should be fully explained in an attachment to this contract.

5. If this audit engagement is subject to the standards for audit as defined in *Government Auditing Standards*, 2018 revision, issued by the Comptroller General of the United States, then by accepting this engagement, the Auditor warrants that he/she has met the requirements for a peer review and continuing education as specified in *Government Auditing Standards*. The Auditor agrees to provide a copy of the most recent peer review report to the Governmental Unit(s) and the Secretary of the LGC prior to the execution of an audit contract. Subsequent submissions of the report are required only upon report expiration or upon auditor's receipt of an updated peer review report. If the audit firm received a peer review rating other than pass, the Auditor shall not contract with the Governmental Unit(s) without first contacting the Secretary of the LGC for a peer review analysis that may result in additional contractual requirements.

If the audit engagement is not subject to *Government Accounting Standards* or if financial statements are not prepared in accordance with U.S. generally accepted accounting principles (GAAP) and fail to include all disclosures required by GAAP, the Auditor shall provide an explanation as to why in an attachment to this contract or in an amendment.

6. It is agreed that time is of the essence in this contract. All audits are to be performed and the report of audit submitted to LGC Staff within four months of fiscal year end. If it becomes necessary to amend the audit fee or the date that the audit report will be submitted to the LGC, an amended contract along with a written explanation of the change shall be submitted to the Secretary of the LGC for approval.

7. It is agreed that GAAS include a review of the Governmental Unit's (Units') systems of internal control and accounting as same relate to accountability of funds and adherence to budget and law requirements applicable thereto; that the Auditor shall make a written report, which may or may not be a part of the written report of audit, to the Governing Board setting forth his/her findings, together with his recommendations for improvement. That written report shall include all matters defined as "significant deficiencies and material weaknesses" in AU-C 265 of the *AICPA Professional Standards (Clarified)*. The Auditor shall file a copy of that report with the Secretary of the LGC.

8. All local government and public authority contracts for audit or audit-related work require the approval of the Secretary of the LGC. This includes annual or special audits, agreed upon procedures related to internal controls, bookkeeping or other assistance necessary to prepare the Governmental Unit's (Units') records for audit, financial statement preparation, any finance-related investigations, or any other audit-related work in the State of North Carolina. Approval is not required on contracts and invoices for system improvements and similar services of a non-auditing nature.

9. Invoices for services rendered under these contracts shall not be paid by the Governmental Unit(s) until the invoice has been approved by the Secretary of the LGC. (This also includes any progress billings.)[G.S. 159-34 and 115C-447] All invoices for Audit work shall be submitted in PDF format to the Secretary of the LGC for approval. The invoice marked 'approved' with approval date shall be returned to

the Auditor to present to the Governmental Unit(s) for payment. This paragraph is not applicable to contracts for audits of hospitals.

10. In consideration of the satisfactory performance of the provisions of this contract, the Governmental Unit(s) shall pay to the Auditor, upon approval by the Secretary of the LGC if required, the fee, which includes any costs the Auditor may incur from work paper or peer reviews or any other quality assurance program required by third parties (federal and state grantor and oversight agencies or other organizations) as required under the Federal and State Single Audit Acts. This does not include fees for any pre-issuance reviews that may be required by the NC Association of CPAs (NCACPA) Peer Review Committee or NC State Board of CPA Examiners (see Item 13).

11. If the Governmental Unit(s) has/have outstanding revenue bonds, the Auditor shall submit to LGC Staff, either in the notes to the audited financial statements or as a separate report, a calculation demonstrating compliance with the revenue bond rate covenant. Additionally, the Auditor shall submit to LGC Staff simultaneously with the Governmental Unit's (Units') audited financial statements any other bond compliance statements or additional reports required by the authorizing bond documents, unless otherwise specified in the bond documents.

12. After completing the audit, the Auditor shall submit to the Governing Board a written report of audit. This report shall include, but not be limited to, the following information: (a) Management's Discussion and Analysis, (b) the financial statements and notes of the Governmental Unit(s) and all of its component units prepared in accordance with GAAP, (c) supplementary information requested by the Governmental Unit(s) or required for full disclosure under the law, and (d) the Auditor's opinion on the material presented. The Auditor shall furnish the required number of copies of the report of audit to the Governing Board upon completion.

13. If the audit firm is required by the NC State Board, the NCACPA Peer Review Committee, or the Secretary of the LGC to have a pre-issuance review of its audit work, there shall be a statement in the engagement letter indicating the pre-issuance review requirement. There also shall be a statement that the Governmental Unit(s) shall not be billed for the pre-issuance review. The pre-issuance review shall be performed prior to the completed audit being submitted to LGC Staff. The pre-issuance review report shall accompany the audit report upon submission to LGC Staff.

14. The Auditor shall submit the report of audit in PDF format to LGC Staff. For audits of units other than hospitals, the audit report should be submitted when (or prior to) submitting the final invoice for services rendered. The report of audit, as filed with the Secretary of the LGC, becomes a matter of public record for inspection, review and copy in the offices of the LGC by any interested parties. Any subsequent revisions to these reports shall be sent to the Secretary of the LGC. These audited financial statements, excluding the Auditors' opinion, may be used in the preparation of official statements for debt offerings by municipal bond rating services to fulfill secondary market disclosure requirements of the Securities and Exchange Commission and for other lawful purposes of the Governmental Unit(s) without requiring consent of the Auditor. If the LGC Staff determines that corrections need to be made to the Governmental Unit's (Units') financial statements, those corrections shall be provided within three business days of notification unless another deadline is agreed to by LGC Staff.

15. Should circumstances disclosed by the audit call for a more detailed investigation by the Auditor than necessary under ordinary circumstances, the Auditor shall inform the Governing Board in writing of the need for such additional investigation and the additional compensation required therefore. Upon approval by the

Secretary of the LGC, this contract may be modified or amended to include the increased time, compensation, or both as may be agreed upon by the Governing Board and the Auditor.

16. If an approved contract needs to be modified or amended for any reason, the change shall be made in writing and pre-audited if the change includes a change in audit fee (pre-audit requirement does not apply to hospitals). This amended contract shall be completed in full, including a written explanation of the change, signed and dated by all original parties to the contract. It shall then be submitted to the Secretary of the LGC for approval. No change to the audit contract shall be effective unless approved by the Secretary of the LGC, the Governing Board, and the Auditor.

17. A copy of the engagement letter, issued by the Auditor and signed by both the Auditor and the Governmental Unit(s), shall be attached to this contract, and except for fees, work, and terms not related to audit services, shall be incorporated by reference as if fully set forth herein as part of this contract. In case of conflict between the terms of the engagement letter and the terms of this contract, the terms of this contract shall take precedence. Engagement letter terms that conflict with the contract are deemed to be void unless the conflicting terms of this contract are specifically deleted in Item 30 of this contract. Engagement letters containing indemnification clauses shall not be accepted by LGC Staff.

18. Special provisions should be limited. Please list any special provisions in an attachment.

19. A separate contract should not be made for each division to be audited or report to be submitted. If a DPCU is subject to the audit requirements detailed in the Local Government Budget and Fiscal Control Act and a separate audit report is issued, a separate audit contract is required. If a separate report is not to be issued and the DPCU is included in the primary government audit, the DPCU shall be named along with the primary government on this audit contract. DPCU Board approval date, signatures from the DPCU Board chairman and finance officer also shall be included on this contract.

20. The contract shall be executed, pre-audited (pre-audit requirement does not apply to hospitals), and physically signed by all parties including Governmental Unit(s) and the Auditor, then submitted in PDF format to the Secretary of the LGC.

21. The contract is not valid until it is approved by the Secretary of the LGC. The staff of the LGC shall notify the Governmental Unit and Auditor of contract approval by email. The audit should not be started before the contract is approved.

22. Retention of Client Records: Auditors are subject to the NC State Board of CPA Examiners' Retention of Client Records Rule 21 NCAC 08N .0305 as it relates to the provision of audit and other attest services, as well as non-attest services. Clients and former clients should be familiar with the requirements of this rule prior to requesting the return of records.

23. This contract may be terminated at any time by mutual consent and agreement of the Governmental Unit(s) and the Auditor, provided that (a) the consent to terminate is in writing and signed by both parties, (b) the parties have agreed on the fee amount which shall be paid to the Auditor (if applicable), and (c) no termination shall be effective until approved in writing by the Secretary of the LGC.

24. The Governmental Unit's (Units') failure or forbearance to enforce, or waiver of, any right or an event of breach or default on one occasion or instance shall not constitute the waiver of such right, breach or default on any subsequent occasion or instance.

25. There are no other agreements between the parties hereto and no other agreements relative hereto that shall be enforceable unless entered into in accordance with the procedure set out herein and approved by the Secretary of the LGC.

26. E-Verify. Auditor shall comply with the requirements of NCGS Chapter 64 Article 2. Further, if Auditor utilizes any subcontractor(s), Auditor shall require such subcontractor(s) to comply with the requirements of NCGS Chapter 64, Article 2.

27. **Applicable to audits with fiscal year ends of June 30, 2020 and later.** For all non-attest services, the Auditor shall adhere to the independence rules of the AICPA Professional Code of Conduct and Governmental Auditing Standards, 2018 Revision (as applicable). Financial statement preparation assistance shall be deemed a "significant threat" requiring the Auditor to apply safeguards sufficient to reduce the threat to an acceptable level. If the Auditor cannot reduce the threats to an acceptable level, the Auditor cannot complete the audit. If the Auditor is able to reduce the threats to an acceptable level, the documentation of this determination, including the safeguards applied, must be included in the audit workpapers.

All non-attest service(s) being performed by the Auditor that are necessary to perform the audit must be identified and included in this contract. The Governmental Unit shall designate an individual with the suitable skills, knowledge, and/or experience (SKE) necessary to oversee the services and accept responsibility for the results of the services performed. If the Auditor is able to identify an individual with the appropriate SKE, s/he must document and include in the audit workpapers how he/she reached that conclusion. If the Auditor determines that an individual with the appropriate SKE cannot be identified, the Auditor cannot perform both the non-attest service(s) and the audit. See "Fees for Audit Services" page of this contract to disclose the person identified as having the appropriate SKE for the Governmental Unit.

28. **Applicable to audits with fiscal year ends of June 30, 2021 and later.** The auditor shall present the audited financial statements including any compliance reports to the government unit's governing body or audit committee in an official meeting in open session as soon as the audited financial statements are available but not later than 45 days after the submission of the audit report to the Secretary. The auditor's presentation to the government unit's governing body or audit committee shall include:

- a) the description of each finding, including all material weaknesses and significant deficiencies, as found by the auditor, and any other issues related to the internal controls or fiscal health of the government unit as disclosed in the management letter, the Single Audit or Yellow Book reports, or any other communications from the auditor regarding internal controls as required by current auditing standards set by the Accounting Standards Board or its successor;
- b) the status of the prior year audit findings;
- c) the values of Financial Performance Indicators based on information presented in the audited financial statements; and
- d) notification to the governing body that the governing body shall develop a "Response to the Auditor's Findings, Recommendations, and Fiscal Matters," if required under 20 NCAC 03 .0508.

29. Information based on the audited financial statements shall be submitted to the Secretary for the purpose of identifying Financial Performance Indicators and Financial Performance Indicators of Concern. See 20 NCAC 03 .0502(c)(6).

30. All of the above paragraphs are understood and shall apply to this contract, except the following numbered paragraphs shall be deleted (See Item 17 for clarification).

31. The process for submitting contracts, audit reports and invoices is subject to change. Auditors and units should use the submission process and instructions in effect at the time of submission. Refer to the N.C. Department of State Treasurer website at <https://www.nctreasurer.com/state-and-local-government-finance-division/local-government-commission/submitting-your-audit>

32. All communications regarding audit contract requests for modification or official approvals will be sent to the email addresses provided on the signature pages that follow.

33. Modifications to the language and terms contained in this contract form (LGC-205) are not allowed.

FEES FOR AUDIT SERVICES

1. For all non-attest services, the Auditor shall adhere to the independence rules of the AICPA Professional Code of Conduct (as applicable) and *Governmental Auditing Standards, 2018 Revision*. Refer to Item 27 of this contract for specific requirements. The following information must be provided by the Auditor; contracts presented to the LGC without this information will be not be approved.

Financial statements were prepared by: ☐ Auditor ☐ Governmental Unit ☐ Third Party

If applicable: Individual at Governmental Unit designated to have the suitable skills, knowledge, and/or experience (SKE) necessary to oversee the non-attest services and accept responsibility for the results of these services:

Name:

Title and Unit / Company:

Email Address:

Tim Holloman

Executive Director/ LCFW&S

thollomanlcfwasa@atmc.net

OR Not Applicable ☐ (Identification of SKE Individual not applicable for GAAS-only audit or audits with FYEs prior to June 30, 2020.)

2. Fees may not be included in this contract for work performed on Annual Financial Information Reports (AFIRs), Form 990s, or other services not associated with audit fees and costs. Such fees may be included in the engagement letter but may not be included in this contract or in any invoices requiring approval of the LGC. See Items 8 and 13 for details on other allowable and excluded fees.

3. Prior to the submission of the completed audited financial report and applicable compliance reports subject to this contract, or to an amendment to this contract (if required) the Auditor may submit interim invoices for approval for services rendered under this contract to the Secretary of the LGC, not to exceed 75% of the billings for the unit's last annual audit that was submitted to the Secretary of the LGC. Should the 75% cap provided below conflict with the cap calculated by LGC Staff based on the billings on file with the LGC, the LGC calculation prevails. All invoices for services rendered in an audit engagement as defined in 20 NCAC .0503 shall be submitted to the Commission for approval before any payment is made. Payment before approval is a violation of law. (This paragraph not applicable to contracts and invoices associated with audits of hospitals).

PRIMARY GOVERNMENT FEES

Primary Government Unit	Lower Cape Fear Water & Sewer
Audit Fee	\$ 7000.00
Additional Fees Not Included in Audit Fee:	
Fee per Major Program	\$
Writing Financial Statements	\$ 1000.00
All Other Non-Attest Services	\$
75% Cap for Interim Invoice Approval (not applicable to hospital contracts)	\$ 6,000.00

DPCU FEES (if applicable)

Discretely Presented Component Unit	NA
Audit Fee	\$
Additional Fees Not Included in Audit Fee:	
Fee per Major Program	\$
Writing Financial Statements	\$
All Other Non-Attest Services	\$
75% Cap for Interim Invoice Approval (not applicable to hospital contracts)	\$

SIGNATURE PAGE**AUDIT FIRM**

Audit Firm*	
Thompson, Price, Scott, Adams & Co., PA	
Authorized Firm Representative (typed or printed)*	Signature*
Gregory S Adams, CPA	
Date*	Email Address*
	gadams@tpsacpas.com

GOVERNMENTAL UNIT

Governmental Unit*	
Lower Cape Fear Water & Sewer	
Date Primary Government Unit Governing Board Approved Audit Contract* (G.S. 159-34(a) or G.S. 115C-447(a))	
Mayor/Chairperson (typed or printed)*	Signature*
Charlie Rivenbark, Chairperson	
Date	Email Address
	charlie@capefearcommercial.com

Chair of Audit Committee (typed or printed, or "NA")	Signature
NA	
Date	Email Address

GOVERNMENTAL UNIT – PRE-AUDIT CERTIFICATE

Required by G.S. 159-28(a1) or G.S. 115C-441(a1).
Not applicable to hospital contracts.

This instrument has been pre-audited in the manner required by The Local Government Budget and Fiscal Control Act or by the School Budget and Fiscal Control Act.

Primary Governmental Unit Finance Officer* (typed or printed)	Signature*
Tim Holloman, Executive Director	
Date of Pre-Audit Certificate*	Email Address*
	thollomanlcfwsa@atmc.net

SIGNATURE PAGE – DPCU
(complete only if applicable)

DISCRETELY PRESENTED COMPONENT UNIT

DPCU*	
NA	
Date DPCU Governing Board Approved Audit Contract* (Ref: G.S. 159-34(a) or G.S. 115C-447(a))	
DPCU Chairperson (typed or printed)*	Signature*
Date*	Email Address*

Chair of Audit Committee (typed or printed, or "NA")	Signature
Date	Email Address

DPCU – PRE-AUDIT CERTIFICATE

Required by G.S. 159-28(a1) or G.S. 115C-441(a1).
Not applicable to hospital contracts.

This instrument has been pre-audited in the manner required by The Local Government Budget and Fiscal Control Act or by the School Budget and Fiscal Control Act.

DPCU Finance Officer (typed or printed)*	Signature*
Date of Pre-Audit Certificate*	Email Address*

Remember to print this form, and obtain all
required signatures prior to submission.

PRINT

AGENDA ITEM

To: CHAIRMAN RIVENBARK AND BOARD MEMBERS

From: TIM H. HOLLOMAN, EXECUTIVE DIRECTOR

Date: February 14, 2022

Re: FY 2022-2046 Draft Master Plan Document

Reviewed and Approved as to form: MATTHEW A. NICHOLS, AUTHORITY ATTORNEY

Background: During discussions regarding payment for the recent line break, the member utilities recommend that a cost-of-service study be completed, including methodologies for distributing the cost of operational items and potential cost-share. That study will not be completed until FY 2022-23. The items in the current draft for FY 2022-23 involve only items that affect the operation and benefit all partners involved.

Action Requested: Motion to Approve or Disapprove



DRAFT MASTER PLANNING DOCUMENT

25 Year Planning Period

FY 2022-2046

February 2022

Prepared for:

Lower Cape Fear Water & Sewer Authority
1107 New Pointe Blvd., Ste. 17
Leland, NC 28451

Prepared by:

McKim & Creed, Inc.
243 N. Front St.
Wilmington, NC 28401
M&C Project No. 01675-0042
License F-1222



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 - KB2. Rebuild/Refurbish Existing 1600 HP Vertical Turbine Raw Water Pumps 1, 4, 5
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 - KB14. 20 MG Ground Storage Tank
 - KB15. 48" Parallel Raw Water Main
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3. **King's Bluff Raw Water Facilities Annual Fiscal Year Budget Breakdown**
4. **Bladen Bluffs Regional Surface Water Facility Capital Improvement Project Sheets**
 - BB1. New High Service Pumping Station
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6. **Appendix**

Executive Summary

I. Kings Bluff Raw Water Facilities

The Authority's proposed 25-year (2022-2046) Capital Project budget for the Kings Bluff Raw Water Facilities is estimated at approximately \$149M. This includes a 48-inch parallel raw water main from the existing 3 MG ground tank to the US 421 service area that may be required in the future to meet the capacity needs of the US 421 area customers and CFPUA. The cost of this parallel main is estimated at \$60M and is subject to grant funding

The following summarizes the primary drivers for the 25-year Capital Improvement Plan:

- Increase overall system capacity via new infrastructure and/or parts to meet long term raw water demands.
- Rehabilitate and replace infrastructure as needed to maintain system functionality of raw water pipeline.
- Plan and design system capacity in order to balance the supply with the demands and meet the needs of any potential customers.
- Design and construct maintenance system for pipeline in order to periodically clean pipeline and maintain station capacity.

The largest capital initiatives (over \$1 M) anticipated over the next twenty-five fiscal years is summarized as follows:

- New generators at King's Bluff Raw Water Pumping Station
- Walkway and Air Backwash Building Replacement
- Pig 48" existing water main from King's Bluff Pumping Station to 3 MG ground tank
- Pig future 54" water main from King's Bluff Pumping Station to 3 MG ground tank
- 20 MG Ground Tank
- 100 MG Reservoir
- Install 4th pump at King's Bluff Pumping Station
- Replace existing pumps at King's Bluff Pumping Station
- Install 48" parallel raw water main from 3 MG ground tank to US 421
- Intermediate Booster Pump Station Upgrade
- New 5th Pump at King's Bluff Pumping Station

In addition to these large capital initiatives, there are a several projects that are estimated at less than \$1 M, which include:

- Refurbish/rebuild existing pumps
- Installation of a new surge tank at the King's Bluff Pumping Station

- 5 ROW Acquisitions
- Intermediate Booster Pump Station Shelter
- Walkway to access 48" raw water main at Livingston Creek

II. Bladen Bluffs Regional Surface Water Facility

The Authority's proposed 25-year (2022-2046) Capital Project budget for the Bladen Bluffs Regional Surface Water Facility is estimated at approximately \$7.3M. However, it is noted that Smithfield Farmland Company (SFC) provides all operation and maintenance of the Bladen Bluffs Regional Surface Water Treatment Facility. All capital improvements and/or maintenance requirements listed in this document are for recommendation only and are the sole responsibility of SFC. LCFWSA would only be responsible for the recommended projects should LCFWSA assume full operation of the facility from SFC.

The following summarizes the primary drivers for the 25-year Capital Improvement Plan:

- Replace aging infrastructure and parts to meet long term demand.
- Plan and design to maintain system capacity to meet current and potential future customer demands

The largest capital initiatives (over \$1 M) anticipated over the next twenty-five fiscal years is summarized as follows:

- New 1 MG Capacity Clearwell
- New High Service Pumping Station

In addition to these large capital initiatives, there are a few projects that are estimated at less than \$1 M, which include:

- Replace Pumps at Raw Water Pumping Station
- Replace Pumps at Recycle Pumping Station
- Replace Pumps at Transfer Pumping Station
- Replace Blower in Blower Building
- Replace On-Site Generators

The proposed CIP budget over the next 25 years has been compiled based on these initiatives. It is recommended that each project be periodically reevaluated, which provides an opportunity to reassess the budget and need for each. This will allow the Authority to adjust priorities and budgets based on meeting customer needs.

III. Capital Projects Evaluations

Each project identified in the CIP was evaluated for the following factors:

1) Category of Need

- Capacity – *the project is needed to either maintain current capacity or increase capacity to meet future need.*
- Renewal/Rehabilitation - *the project is needed to replace or rehabilitate existing infrastructure to maintain capacity and operational readiness.*
- Efficiency- *the project is needed to increase or maintain the efficiency of the facilities and/or to maintain operations.*
- Maintenance – *the project is required for a general maintenance need to maintain equipment and/or facilities in operational condition.*

2) Criticality Score: 1 (Lowest) to 5 (Highest)

The criticality score was developed to for each project to provide a summary assessment of impact to operations as a driver for project implementation. Note that criticality levels provided in this document are specific to the fiscal year for which they have been identified.

Criticality Scoring Scale

1	2	3
The need for the project is low and does not fundamentally impact operational readiness	The project has a moderate impact on operations and may provide limited improvement to the facilities	The project is of critical need and will greatly impact operations if not completed.

3) Consequence of No-Action

In addition to the identification of the category and criticality assessment, a “Consequence of No-Action” statement has been included for each project. The intent of this statement is to clarify the impacts to operations, capacity, facility maintenance, etc. that would result if the project were not implemented.

4) Project Raw Water Demands

For capacity related improvements, updated customer projections were taken from the May 2018 Preliminary Design Memorandum for the Lower Cape Fear Water & Sewer Authority Parallel Raw Water Main report. A summary of the projected demands is provided as follows:

LCFWSA Projected Raw Water Demands

Customer	2015 Demands (MGD)	2025 Demands (MGD)	2035 Demands (MGD)	2045 Demands (MGD)	2055 Demands (MGD)	2062 Demands (MGD)
CFPUA	10.4	13.5	20.5	28.6	34.3	38.2
Brunswick County	19.7	25.1	30.6	36.67	43.89	49.8
US 421 Industries	2.0	2.0	2.0	2.0	2.0	2.0
Pender County	1.1	2.4	4.8	6.0	6.0	6.0
Totals	33.2	43.01	57.9	73.27	87.55	96.0

**Kings Bluff Raw Water Facilities
Capital Improvements
LCFWSA Projects
FY 2022-2046**

KING'S BLUFF RAW WATER FACILITIES

PROJECT TITLE	New 4 th Pump at King's Bluff Raw Water Pump Station	KB 1
CATEGORY:	Capacity/Efficiency	
Summary: <ul style="list-style-type: none">Provide a fourth raw water pump at King's Bluff Pumping Station to meet projected demands. (See #2 on legend in graphic below) Projected demands will exceed station firm capacity by 2037.		
Justification: <ul style="list-style-type: none">Increase station capacity to meet long term raw water demand.Firm capacity of station will require 3 pumps by 2037. Fourth pump will be standby/backup and added to pump rotation to reduce hours per pump.		
Consequence of No Action: <ul style="list-style-type: none">The projected demands at the station will exceed the firm capacity and the station will not be able to serve the project customer demand.		
Criticality:		
<div><div>1</div><div>2</div><div>3</div></div>		
DURATION (MONTHS)	24	
REQUIRED COMPLETION	2026	
TOTAL ESTIMATED COST	\$3,600,000	
FISCAL YEAR	ANTICIPATED FISCAL YEAR EXPENDITURE	
2024	\$800,000	
2025	\$2,000,000	
2026	\$800,000	



KING'S BLUFF RAW WATER FACILITIES

PROJECT TITLE	Rebuild/Refurbish Existing 1600 HP Vertical Turbine Raw Water Pumps	KB 2
CATEGORY:	Renewal/Rehabilitation	
Summary: <ul style="list-style-type: none">Rebuild and/or refurbishment of an existing 1600 HP vertical turbine raw water pumps originally installed in 2009 and a proposed 1600 HP vertical turbine raw water pump that will be installed in 2020.		
Justification: <ul style="list-style-type: none">Due to age and mechanical wear, it is anticipated that a rebuild of one of the raw water pumps will be required.Rebuilding of pumps will extend the service life of the pumps		
Consequence of No Action: <ul style="list-style-type: none">The likelihood of failure of the pumps increases due to age and wear of the existing pump.		
Criticality:		
<div><div>1</div><div>2</div><div>3</div></div>		
DURATION (MONTHS)	48	
REQUIRED COMPLETION	2023, 2025, 2027, 2044	
TOTAL ESTIMATED COST	\$1,000,000	
FISCAL YEAR	ANTICIPATED FISCAL YEAR EXPENDITURE	
2023	\$250,000	
2025	\$250,000	
2027	\$250,000	
2044	\$250,000	



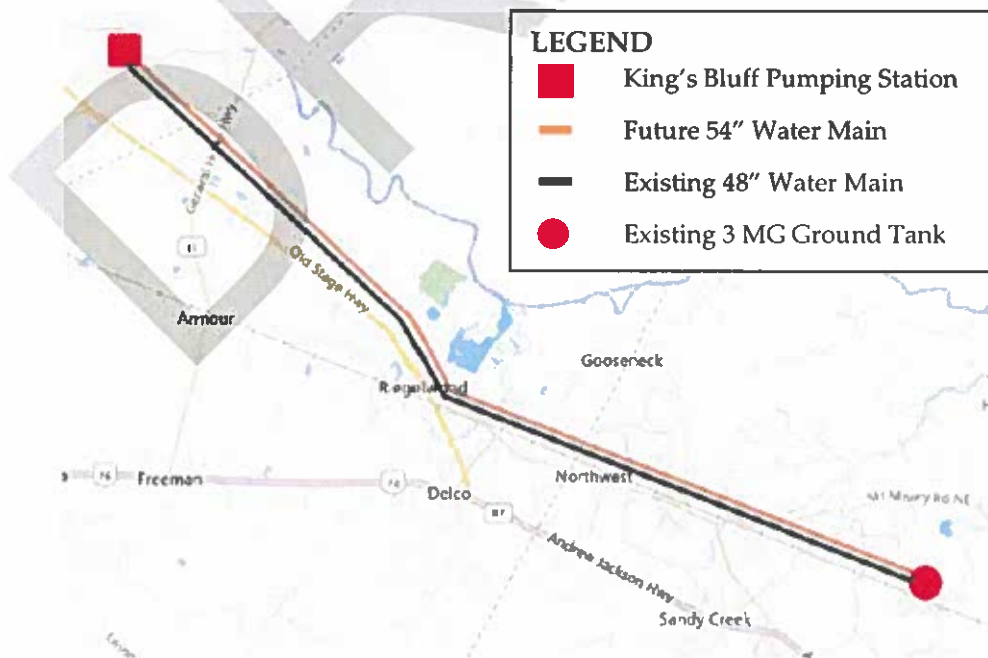
KING'S BLUFF RAW WATER FACILITIES

PROJECT TITLE	Generators at King's Bluff Raw Water Pump Station	KB 3
CATEGORY:	Capacity, Efficiency, Maintenance	
Summary: <ul style="list-style-type: none">Provide new standby generator(s) and a new generator building at the pump station.		
Justification: <ul style="list-style-type: none">Requires upgrade due to future increased load associated with additional pump motor HP as well as larger quantity of pumps.A new building will be needed to house the new generators.		
Consequence of No Action: <ul style="list-style-type: none">The current generators are undersized to accommodate long term demandsThe existing generators are anticipated to become cost prohibitive to maintain		
Criticality: <div><div>▼</div><div><div>1</div><div>2</div><div>3</div></div></div>		
DURATION (MONTHS)	24	
REQUIRED COMPLETION	2031	
TOTAL ESTIMATED COST	\$9,200,000	
FISCAL YEAR	ANTICIPATED FISCAL YEAR EXPENDITURE	
2023	\$1,000,000	
2024	\$8,200,000	



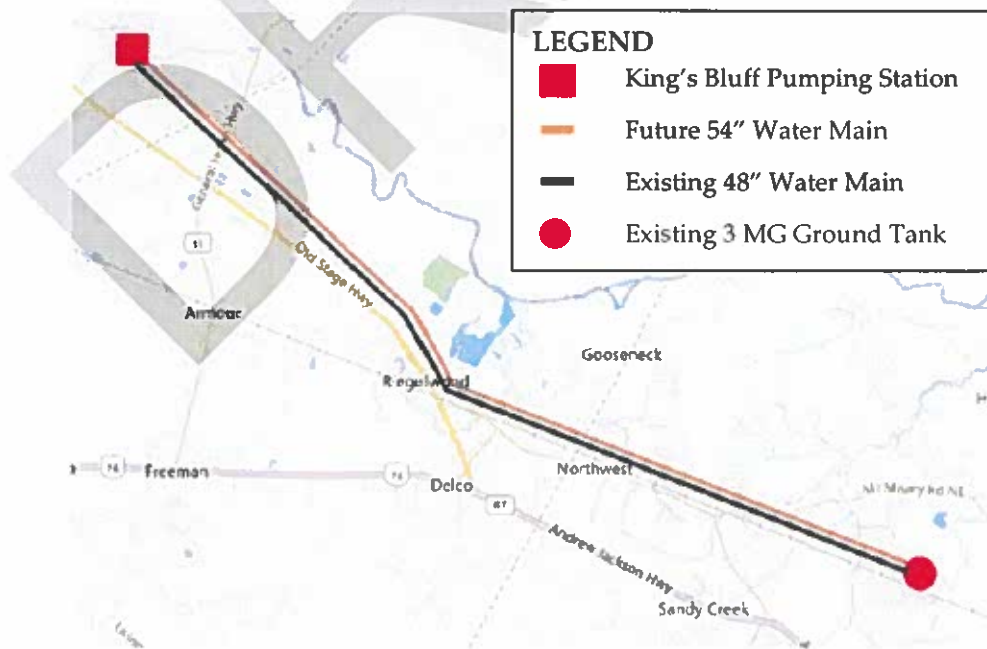
KING'S BLUFF RAW WATER FACILITIES

PROJECT TITLE	Pig 48" Pipe from King's Bluff Pump Station to 3 MG Ground Tank	KB 4
CATEGORY:	Renewal/Rehabilitation, Efficiency	
Summary: <ul style="list-style-type: none">Pig 48" pipeline from King's Bluff to 3 MG ground tank. Repair and/or replace air release valves and blow-offs.		
Justification: <ul style="list-style-type: none">Pigging will maintain a clean pipeline free of sediment, silt, and debris cleaned or emptied in the case of an emergency.Improves efficiency of pumps by reducing frictional characteristics of the pipeline		
Consequence of No Action: <ul style="list-style-type: none">Potential for loss of capacity and/or clogging due to sediment buildup.Loss of efficiency and higher electrical costs		
Criticality: <div><div>▼</div><div><div>1</div><div>2</div><div>3</div></div></div>		
DURATION (MONTHS)	12	
REQUIRED COMPLETION	2040	
TOTAL ESTIMATED COST	\$1,000,000	
FISCAL YEAR	ANTICIPATED FISCAL YEAR EXPENDITURE	
2040	\$1,000,000	



KING'S BLUFF RAW WATER FACILITIES

PROJECT TITLE	Pig Future 54" Pipe from 3 MG Ground Tank to US 421	KB 5
CATEGORY:	Renewal/Rehabilitation, Efficiency	
Summary: <ul style="list-style-type: none">Pig Future 54" pipeline from King's Bluff to 3 MG ground tank. Repair and/or replace air release valves and blow-offs.		
Justification: <ul style="list-style-type: none">Pigging will maintain a clean pipeline free of sediment, silt, and debris cleaned or emptied in the case of an emergency.Improves efficiency of pumps by reducing frictional characteristics of the pipeline		
Consequence of No Action: <ul style="list-style-type: none">Potential for loss of capacity and/or clogging due to sediment buildup.Loss of efficiency and higher electrical costs		
Criticality: <div><div>▼</div><div><div>1</div><div>2</div><div>3</div></div></div>		
DURATION (MONTHS)	12	
REQUIRED COMPLETION	2040	
TOTAL ESTIMATED COST	\$1,000,000	
FISCAL YEAR	ANTICIPATED FISCAL YEAR EXPENDITURE	
2034	\$1,000,000	



KING'S BLUFF RAW WATER FACILITIES

PROJECT TITLE	Walkway and Air Backwash Building Replacement	KB 6
CATEGORY:	Renewal/Rehabilitation/Maintenance	
Summary:		
<ul style="list-style-type: none">Funding for replacement of existing walkway from the King’s Bluff Pumping Station to the Air Backwash buildings with a new concrete walkway.Upgrade/replace existing air backwash building. (See number 1 on legend below).		
Justification:		
<ul style="list-style-type: none">Walkway going from pumping station to air backwash buildings is currently in serviceable condition and will need to be replaced by 2024 due to rotting wood and overall weathering of walkway.During Hurricane Florence the walkway was nearing submergenceExisting, original air backwash building needs significant improvements due to a loss of structural integrity caused by the general degradation of original building materials.		
Consequence of No Action:		
<ul style="list-style-type: none">Deterioration of the walkway could limit access to the air backwash buildings and raw water intakes.The air backwash facility will continue to deteriorate and create potential issues with protection of equipment and access for operations and maintenance.		
Criticality:		
<div><div>▼</div><div><div>1</div><div>2</div><div>3</div></div></div>		
DURATION (MONTHS)	12	
REQUIRED COMPLETION	2024	
TOTAL ESTIMATED COST	\$1,500,000	
FISCAL YEAR	ANTICIPATED FISCAL YEAR EXPENDITURE	
2023	\$150,000	
2024	\$1,350,000	



KING'S BLUFF RAW WATER FACILITIES

PROJECT TITLE	Replace Raw Water Pumps 1, 4, 5	KB 7
CATEGORY:	Renewal/Rehabilitation	
Summary: <ul style="list-style-type: none">Replace 1600 HP vertical turbine raw water pumps 1, 4, 5 originally installed in 2009.		
Justification: <ul style="list-style-type: none">Due to age and mechanical wear, it is anticipated that replacement of raw water pumps 1, 4, and 5 will be required.		
Consequence of No Action: <ul style="list-style-type: none">The likelihood of failure of the pumps increases due to age and wear of the existing pump. The service life of the existing pumps will be expended.		
Criticality: <div>▼</div> <div><div>1</div><div>2</div><div>3</div></div>		
DURATION (MONTHS)	36	
REQUIRED COMPLETION	2041, 2042, 2043	
TOTAL ESTIMATED COST	\$10,800,000	
FISCAL YEAR	ANTICIPATED FISCAL YEAR EXPENDITURE	
2041	\$3,600,000	
2042	\$3,600,000	
2043	\$3,600,000	



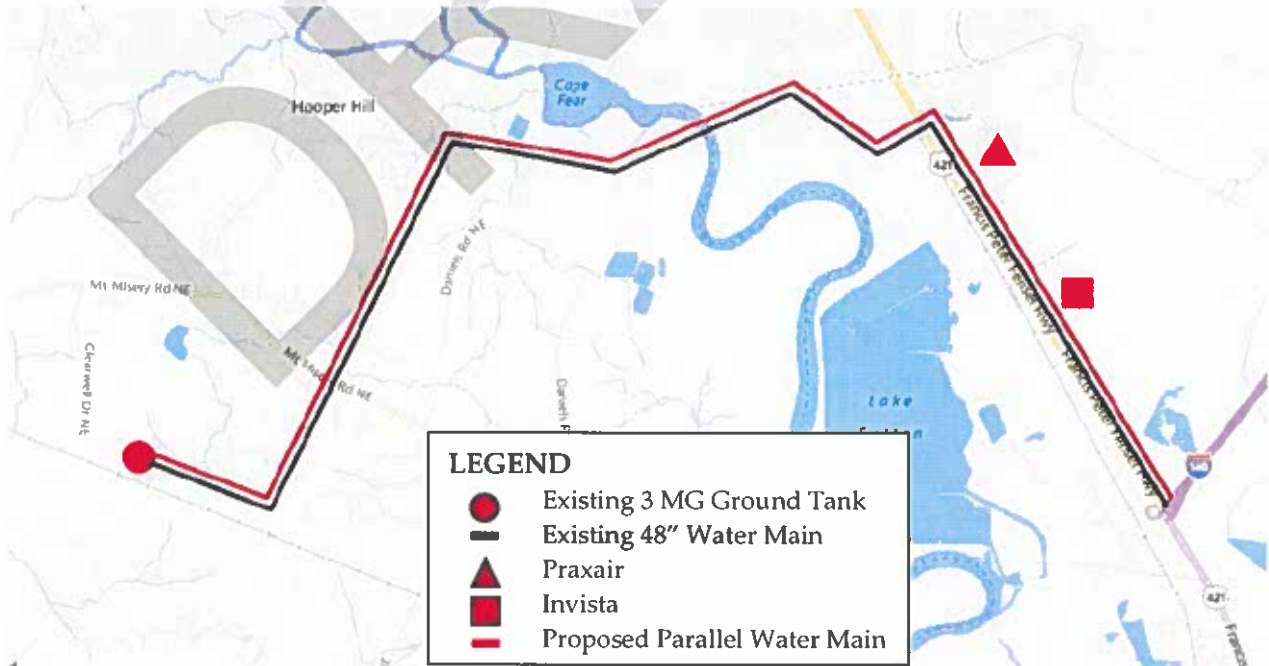
KING'S BLUFF RAW WATER FACILITIES

PROJECT TITLE	New Surge Tank at King's Bluff	KB 8
CATEGORY:	Capacity	
Summary: <ul style="list-style-type: none">Addition of a 4th surge tank at King's Bluff Pumping Station		
Justification: <ul style="list-style-type: none">As demand increases, surges in the system will likely increase. The 4th surge tank will serve to mitigate system surges and protect the pumps, piping and miscellaneous equipment from surges and water hammer.		
Consequence of No Action: <ul style="list-style-type: none">Existing pump station and piping infrastructure would be put at risk for damage due to system surges and could potentially create failures in the pipeline.		
Criticality: <div><div>▼</div><div><div>1</div><div>2</div><div>3</div></div></div>		
DURATION (MONTHS)	12	
REQUIRED COMPLETION	2043	
TOTAL ESTIMATED COST	\$500,000	
FISCAL YEAR	ANTICIPATED FISCAL YEAR EXPENDITURE	
2043	\$500,000	



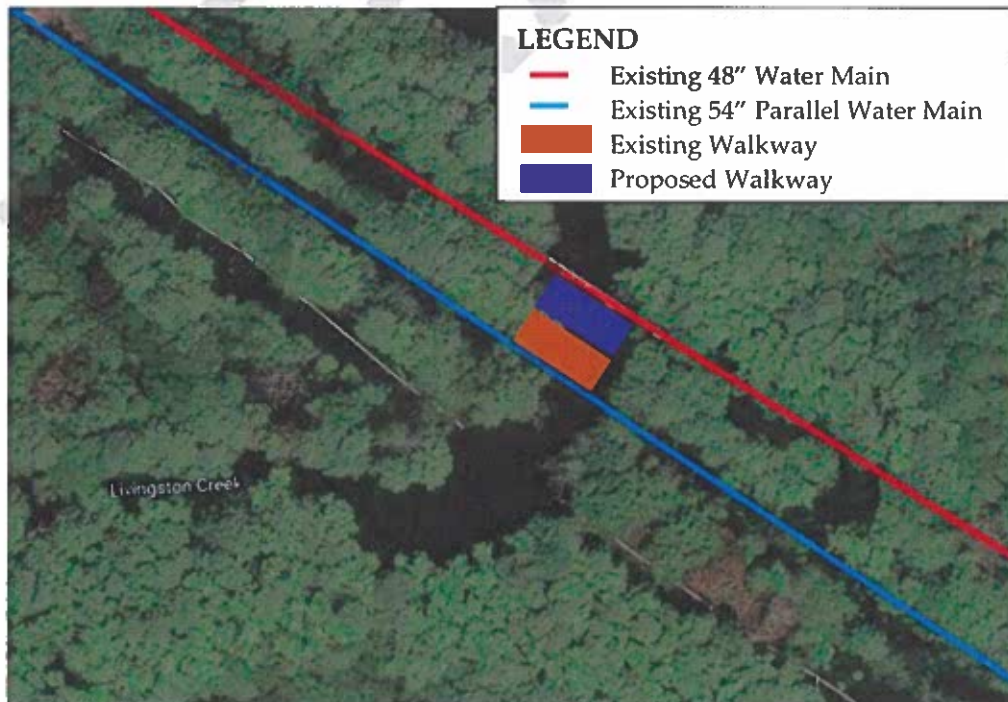
KING'S BLUFF RAW WATER FACILITIES

PROJECT TITLE	5 ROW Acquisitions	KB 9
CATEGORY:	Capacity	
Summary:	<ul style="list-style-type: none"> Right-of-Way acquisitions along the existing 48" Raw Water Main from the 3 MGD ground tank to the US421 service area. 	
Justification:	<ul style="list-style-type: none"> Required to install the proposed 48" parallel raw water main 	
Consequence of No Action:	<ul style="list-style-type: none"> Future supply to the US421 service area will be limited to the capacity of the existing 48" main. 	
Criticality:	<div style="text-align: center;">▼</div> <div style="display: flex; justify-content: space-around; background-color: #f0f0f0; padding: 5px;"> 1 2 3 </div>	
DURATION (MONTHS)	36	
REQUIRED COMPLETION	2025	
TOTAL ESTIMATED COST	\$300,000	
FISCAL YEAR	ANTICIPATED FISCAL YEAR EXPENDITURE	
2023	\$100,000	
2024	\$100,000	
2025	\$100,000	



KING'S BLUFF RAW WATER FACILITIES

PROJECT TITLE	Walkway to Access 48" Raw Water Main at Livingston Creek	KB 10
CATEGORY:	Maintenance	
Summary: <ul style="list-style-type: none">Walkway installation running parallel to the aerial crossing of the 48" raw water main at Livingston Creek and connecting to the existing walkway recently installed for the 54" parallel raw water main.		
Justification: <ul style="list-style-type: none">Pipe and appurtenances at aerial crossing are currently inaccessible to operations staff for routine inspection, maintenance, and repairs.		
Consequence of No Action: <ul style="list-style-type: none">Limited access to aerial crossing of 48" main for repairs and routine maintenance.		
Criticality: <div>▼</div> <div><div>1</div><div>2</div><div>3</div></div>		
DURATION (MONTHS)	12	
REQUIRED COMPLETION	2024	
TOTAL ESTIMATED COST	\$250,000	
FISCAL YEAR	ANTICIPATED FISCAL YEAR EXPENDITURE	
2024	\$250,000	

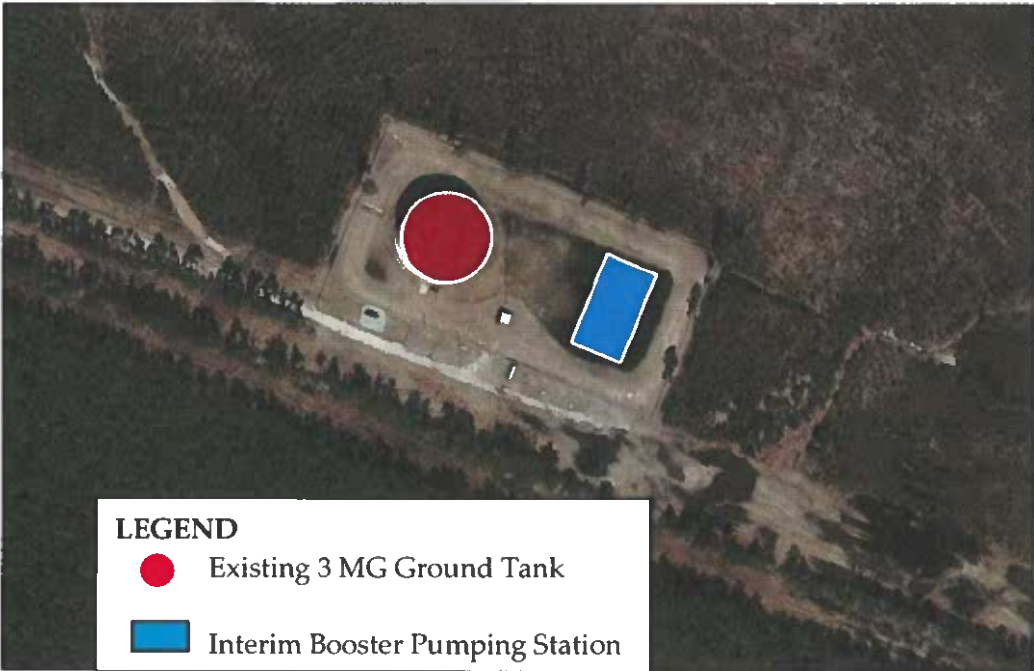


KING'S BLUFF RAW WATER FACILITIES

**Kings Bluff Raw Water Facilities
Capital Improvements
Cost Sharing Projects
FY 2022-2046**

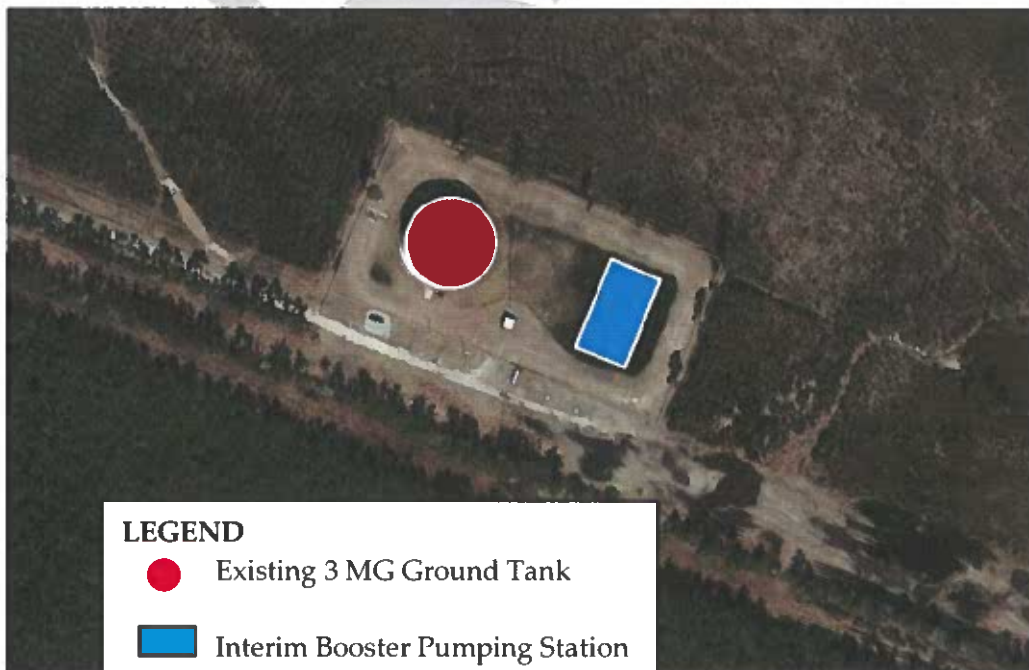
KING'S BLUFF RAW WATER FACILITIES

PROJECT TITLE	Intermediate Booster Pump Station Shelter	KB 11
CATEGORY:	Maintenance/Efficiency	
Summary: <ul style="list-style-type: none">Addition of protective shelter at the Intermediate Booster PS		
Justification: <ul style="list-style-type: none">Required to protect existing pumps, equipment, gear from elementsProvides improved maintenance access during inclement weather		
Consequence of No Action: <ul style="list-style-type: none">Equipment potentially suffers degradation due to exposure to the elements to include freezing conditions, and sun damage.		
Criticality:		
<div><div>1</div><div>2</div><div>▼3</div></div>		
DURATION (MONTHS)	12	
REQUIRED COMPLETION	2025	
TOTAL ESTIMATED COST	\$500,000	
FISCAL YEAR	ANTICIPATED FISCAL YEAR EXPENDITURE	
2025	\$500,000	



KING'S BLUFF RAW WATER FACILITIES

PROJECT TITLE	Intermediate Booster Pump Station Upgrade	KB 12
CATEGORY:	Capacity	
Summary: <ul style="list-style-type: none">Infrastructure upgrades to the existing booster pump station. Diesel pumps to be replaced with new, larger capacity pumps.		
Justification: <ul style="list-style-type: none">US 421 area demands will exceed current 29 MGD capacity in approximately 2037.Recommend upgrade to 37 MGD capacity.		
Consequence of No Action: <ul style="list-style-type: none">Booster Pump Station will not be able to fully serve the projected demands and system pressure for the US 421 area.		
Criticality:		
1	2	3
DURATION (MONTHS)	24	
REQUIRED COMPLETION	2034	
TOTAL ESTIMATED COST	\$7,000,000	
FISCAL YEAR	ANTICIPATED FISCAL YEAR EXPENDITURE	
2033	\$1,000,000	
2034	\$6,000,000	



KING'S BLUFF RAW WATER FACILITIES

PROJECT TITLE	New 5 th Pump at King's Bluff Raw Water Pump Station	KB 13
CATEGORY:	Capacity	
Summary: <ul style="list-style-type: none">Provide a fifth raw water pump at King's Bluff Pumping Station to meet projected demands. (See #2 on legend in graphic below) Projected demands will exceed station firm capacity by 2062		
Justification: <ul style="list-style-type: none">Decrease load and run times on existing pumps to extend life and improve reliability.		
Consequence of No Action: <ul style="list-style-type: none">The projected demands at the station will exceed the firm capacity and the station will not be able to serve the project customer demand.		
Criticality:		
<div><div>1</div><div>2</div><div>3</div></div>		
DURATION (MONTHS)	24	
REQUIRED COMPLETION	2046	
TOTAL ESTIMATED COST	\$3,600,000	
FISCAL YEAR	ANTICIPATED FISCAL YEAR EXPENDITURE	
2044	\$800,000	
2045	\$2,000,000	
2046	\$800,000	



KING'S BLUFF RAW WATER FACILITIES

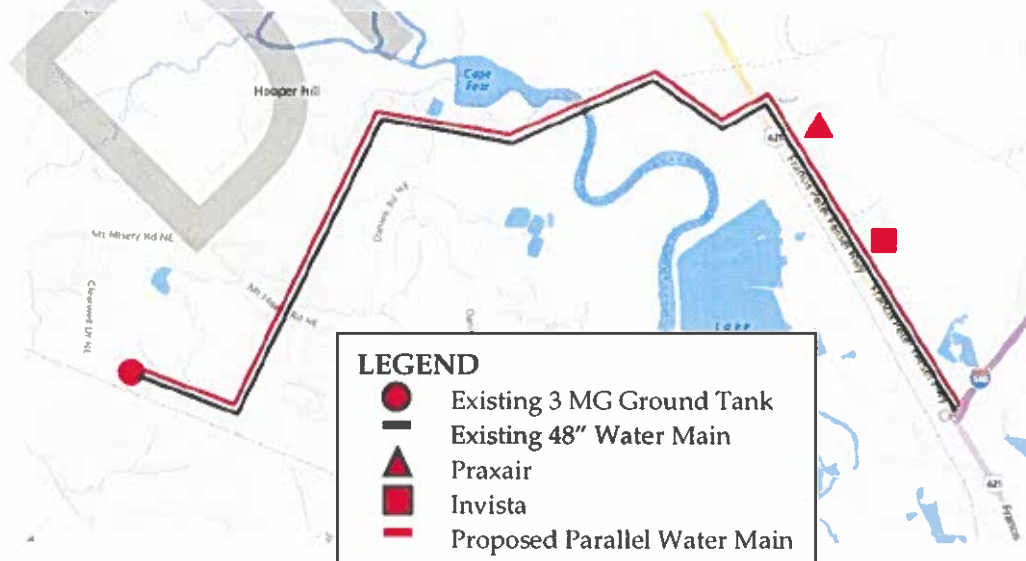
PROJECT TITLE	20 MG Ground Tank	KB 14
CATEGORY:	Capacity/Efficiency	
Summary: <ul style="list-style-type: none">Design & construction of a new 20 MG ground tank in close proximity to the existing 3 MG ground tank with sufficient acreage to construct a future 20 MG ground tank.		
Justification: <ul style="list-style-type: none">Increase in available system storage.Provide a more consistent supply for safe and efficient operation of the adjacent interim booster pump station.		
Consequence of No Action: <ul style="list-style-type: none">Minimal system storage as system demands continue to increaseIncreased cycling of pumps at the intermediate booster pump station.		
Criticality: <div><div>▼</div><div><div>1</div><div>2</div><div>3</div></div></div>		
DURATION (MONTHS)	24	
REQUIRED COMPLETION	2037	
TOTAL ESTIMATED COST	\$ 12,000,000	
FISCAL YEAR	ANTICIPATED FISCAL YEAR EXPENDITURE	
2036	\$3,000,000	
2037	\$9,000,000	



KING'S BLUFF RAW WATER FACILITIES

PROJECT TITLE	Parallel Raw Water Main from 3 MG Ground Tank to US 421 Service Area	KB 15
CATEGORY:	Capacity	
Summary: <ul style="list-style-type: none">Design and construction of approximate 10-mile 48-inch raw water main from 3 MG ground tank to US 421 service area. Pipe would parallel the existing 48-inch raw water main in this area.		
Justification: <ul style="list-style-type: none">Provides additional system capacityReduces reliance on intermediate booster pump station.Improves reliability with a parallel main to serve major customers.		
Consequence of No Action: <ul style="list-style-type: none">The system may not have capability to meet long-term customer demands.The existing 48-inch main is a single point of failure from the 3 MGD ground tank to the US 421 service area.		
Criticality: <div>▼</div> <div><div>1</div><div>2</div><div>3</div></div>		
DURATION (MONTHS)	42	
REQUIRED COMPLETION	2025*	
TOTAL ESTIMATED COST	\$55,000,000*	
FISCAL YEAR	ANTICIPATED FISCAL YEAR EXPENDITURE	
2023	\$10,000,000	
2024	\$15,000,000	
2025	\$15,000,000	
2026	\$15,000,000	

*Note: Subject to grant funding.



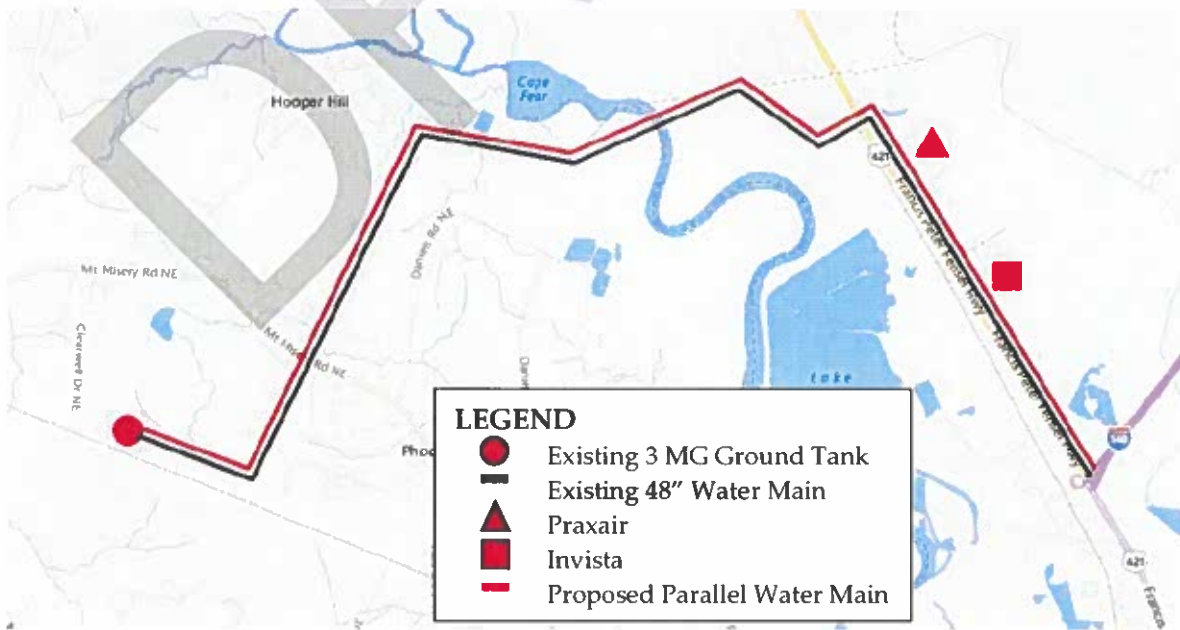
KING'S BLUFF RAW WATER FACILITIES

PROJECT TITLE	100 MGD Reservoir	KB 16
CATEGORY:	Efficiency	
Summary: <ul style="list-style-type: none">Design & construction of a new 100 MG reservoir. Optimal location and operation of the reservoir to be determined by future engineering study.		
Justification: <ul style="list-style-type: none">Increase in available system storage.Allows for temporary redundancy of supply in the case of an emergency (line break, power outage, etc.).		
Consequence of No Action: <ul style="list-style-type: none">Minimal system storage as system demands continue to increase.Loss of regular supply under emergency conditions.		
Criticality: <div>▼</div> <div><div>1</div><div>2</div><div>3</div></div>		
DURATION (MONTHS)	24	
REQUIRED COMPLETION	2032	
TOTAL ESTIMATED COST	\$35,000,000	
FISCAL YEAR	ANTICIPATED FISCAL YEAR EXPENDITURE	
2031	\$5,000,000	
2032	\$30,000,000	



KING'S BLUFF RAW WATER FACILITIES

PROJECT TITLE	Pig 48" Pipe from 3 MG Ground Tank to CFPWA WTP	KB 17
CATEGORY:	Renewal/Rehabilitation, Efficiency	
Summary:		
<ul style="list-style-type: none">Pig 48" pipeline from 3 MG ground tank to CFPWA's Water Treatment Plant including installation of pig launcher/retrieval system. Repair and/or replace air release valves and blow-offs.		
Justification:		
<ul style="list-style-type: none">Recent evaluation indicated build -up of sediment in the 48" line. Pigging will maintain a clean pipeline free of sediment, silt, and debris.Improves efficiency of pumps by reducing frictional characteristics of the pipeline		
Consequence of No Action:		
<ul style="list-style-type: none">Current loss of capacity and/or clogging due to sediment buildup.Loss of efficiency and higher electrical costs		
Criticality:		
<div><div>▼</div><div><div>1</div><div>2</div><div>3</div></div></div>		
DURATION (MONTHS)	12	
REQUIRED COMPLETION	2032	
TOTAL ESTIMATED COST	\$2,000,000	
FISCAL YEAR	ANTICIPATED FISCAL YEAR EXPENDITURE	
2033	\$2,000,000	



KING'S BLUFF RAW WATER FACILITIES

Annual Fiscal Year Budget Breakdown – Capital Projects (In Millions of Dollars)

Project No.	Description	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041	FY 2042	FY 2043	FY 2044	FY 2045	FY 2046	Totals
Lower Cape Fear Water and Sewer Authority Projects																											
KB 1	New 4th Pump at King's Bluff (KBPS)			\$0.80	\$2.00	\$0.80																					\$3.60
KB 2	Rebuild High Service Pump Motors		\$0.25		\$0.25		\$0.25																	\$0.25			\$1.00
KB 3	New Generators									\$1.00	\$8.20																\$9.20
KB 4	Pig 48" Water Main (KBPS to 3 MG Tank)																		\$1.00								\$1.00
KB 5	Pig Future 54" Water Main																		\$1.00								\$1.00
KB 6	Walkway and Air Backwash Building Replacement			\$0.15	\$1.35																						\$1.50
KB 7	Replace Raw Water Pumps 1, 4, 5																				\$3.60	\$3.60	\$3.60				\$10.80
KB 8	New Surge Tank at KBPS																						\$0.50				\$0.50
KB 9	5 ROW Acquisitions		\$0.10	\$0.10	\$0.10																						\$0.30
KB 10	Walkway to Access 48" RWM at Livingston Creek			\$0.25																							\$0.25
Cost Sharing Projects																											
KB 11	Intermediate Booster Pump Station Shelter				\$0.50																						\$0.50
KB 12	Intermediate Booster Pump Station Upgrade												\$1.00	\$6.00													\$7.00
KB 13	New 5th Pump at King's Bluff																							\$0.80	\$2.00	\$0.80	\$3.60
KB 14	20 MG Ground Tank															\$3.00	\$9.00										\$12.00
KB 15	48" Parallel Raw Water Main US 421	\$10.0	\$15.0	\$17.5	\$17.5																						\$60.00
KB 16	100 MGD Reservoir										\$5.00	\$30.00															\$35.00
KB 17	Pig 48" Water Main (3 MG Tank to CFPUA)											\$2.00															\$2.00
Total Fiscal Year Expenditure		\$10.00	\$15.35	\$16.80	\$21.70	\$0.80	\$0.25	\$0.00	\$0.00	\$1.00	\$13.20	\$32.00	\$1.00	\$6.00	\$0.00	\$3.00	\$9.00	\$0.00	\$0.00	\$2.00	\$3.60	\$3.60	\$4.10	\$1.05	\$2.00	\$0.80	\$149.25

BLADEN BLUFFS REGIONAL SURFACE WATER FACILITY

**Bladen Bluffs Regional
Surface Water Treatment Facility
Capital Improvements Projects
FY 2022-2046**

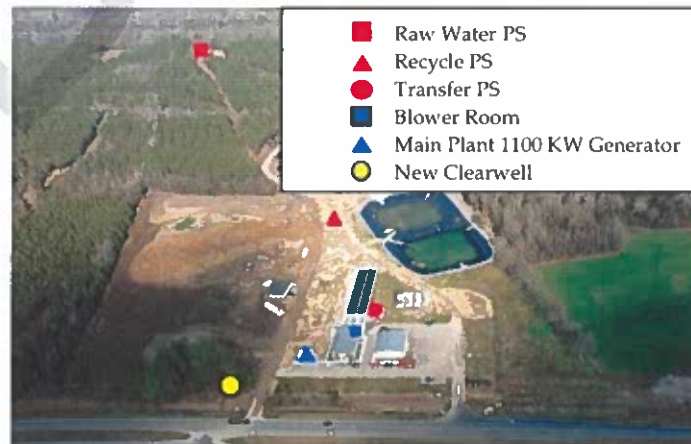
BLADEN BLUFFS REGIONAL SURFACE WATER FACILITY

PROJECT TITLE	New High Service Pump Station	BB 1			
CATEGORY:	Capacity				
Summary:					
<ul style="list-style-type: none">Construct a new high service pumping station to increase capacity.					
<i>Note: Currently Smithfield Farmland Company (SFC) provides all operation and maintenance of the Bladen Bluffs Regional Surface Water Treatment Facility. The CIP project described on this sheet would only be required if the LCFWSA assumed full operation of the facility from SFC. Until such time all capital improvements and/or maintenance requirements are solely the responsibility of SFC.</i>					
Justification:					
<ul style="list-style-type: none">Required to serve new customers.Construction of new high service pump station would only be required when additional customers are identified to be served by the Bladen Bluffs Regional Surface Water Treatment Facility.					
Consequence of No Action:					
<ul style="list-style-type: none">The system will not have the required capacity to meet new customer demands.					
Criticality:					
▼					
<table><tr><td>1</td><td>2</td><td>3</td></tr></table>			1	2	3
1	2	3			
DURATION (MONTHS)	24				
REQUIRED COMPLETION	2029				
TOTAL ESTIMATED COST	\$3,500,000				
FISCAL YEAR	ANTICIPATED FISCAL YEAR EXPENDITURE				
2028	\$500,000				
2029	\$3,000,000				



BLADEN BLUFFS REGIONAL SURFACE WATER FACILITY

PROJECT TITLE	Construct New 1 MG Capacity Clearwell	BB 2
CATEGORY:	Capacity	
Summary:		
<ul style="list-style-type: none">Construct clearwell to meet future customer finished water storage capacity.		
<i>Note: Currently Smithfield Farmland Company (SFC) provides all operation and maintenance of the Bladen Bluffs Regional Surface Water Treatment Facility. The CIP project described on this sheet would only be required if the LCFWSA assumed full operation of the facility from SFC. Until such time all capital improvements and/or maintenance requirements are solely the responsibility of SFC.</i>		
Justification:		
<ul style="list-style-type: none">Required to serve new customers.Clearwell would only be required when additional customers are identified to be served by the Bladen Bluffs Regional Surface Water Treatment Facility.		
Consequence of No Action:		
<ul style="list-style-type: none">The system will not have the required capacity to meet new customer demands.		
Criticality:		
<div><div>▼</div><div><div>1</div><div>2</div><div>3</div></div></div>		
DURATION (MONTHS)	24	
REQUIRED COMPLETION	2029	
TOTAL ESTIMATED COST	\$2,500,000	
FISCAL YEAR	ANTICIPATED FISCAL YEAR EXPENDITURE	
2028	\$500,000	
2029	\$2,000,000	



BLADEN BLUFFS REGIONAL SURFACE WATER FACILITY

PROJECT TITLE	Replace Three (3) Pumps at the Raw Water Pump Station	BB 3
CATEGORY:	Renewal/Rehabilitation	
Summary: <ul style="list-style-type: none">Routine replacement of three (3) aging pumps at Raw Water Pumping Station. <p><i>Note: Currently Smithfield Farmland Company (SFC) provides all operation and maintenance of the Bladen Bluffs Regional Surface Water Treatment Facility. The CIP project described on this sheet would only be required if the LCFWSA assumed full operation of the facility from SFC. Until such time all capital improvements and/or maintenance requirements are solely the responsibility of SFC.</i></p>		
Justification: <ul style="list-style-type: none">Pumps will be approximately 20 years old by 2032 and approaching end of useful service life.		
Consequence of No Action: <ul style="list-style-type: none">The likelihood of failure of the pumps increases due to age and wear of the existing pump.		
Criticality: <div><div>▼</div><div><div>1</div><div>2</div><div>3</div></div></div>		
DURATION (MONTHS)	12	
REQUIRED COMPLETION	2032	
TOTAL ESTIMATED COST	\$250,000	
FISCAL YEAR	ANTICIPATED FISCAL YEAR EXPENDITURE	
2032	\$250,000	



BLADEN BLUFFS REGIONAL SURFACE WATER FACILITY

PROJECT TITLE	Replace Blower in the Blower Building	BB 4			
CATEGORY:	Renewal/Rehabilitation				
Summary: <ul style="list-style-type: none">Routine replacement of aging blower in blower building. <p><i>Note: Currently Smithfield Farmland Company (SFC) provides all operation and maintenance of the Bladen Bluffs Regional Surface Water Treatment Facility. The CIP project described on this sheet would only be required if the LCFWSA assumed full operation of the facility from SFC. Until such time all capital improvements and/or maintenance requirements are solely the responsibility of SFC.</i></p>					
Justification: <ul style="list-style-type: none">Blower will be approximately 25 years old by 2032 and approaching end of useful service life.					
Consequence of No Action: <ul style="list-style-type: none">The likelihood of failure of the blower increases due to age and wear of the existing blower.					
Criticality: <div>▼</div> <table><tr><td>1</td><td>2</td><td>3</td></tr></table>			1	2	3
1	2	3			
DURATION (MONTHS)	12				
REQUIRED COMPLETION	2032				
TOTAL ESTIMATED COST	\$100,000				
FISCAL YEAR	ANTICIPATED FISCAL YEAR EXPENDITURE				
2032	\$100,000				



BLADEN BLUFFS REGIONAL SURFACE WATER FACILITY

PROJECT TITLE	Replace Three (3) Pumps at the Recycle Pump Station	BB 5			
CATEGORY:	Renewal/Rehabilitation				
Summary: <ul style="list-style-type: none">Routine replacement of three (3) aging pumps at the Recycle Pumping Station. <p><i>Note: Currently Smithfield Farmland Company (SFC) provides all operation and maintenance of the Bladen Bluffs Regional Surface Water Treatment Facility. The CIP project described on this sheet would only be required if the LCFWSA assumed full operation of the facility from SFC. Until such time all capital improvements and/or maintenance requirements are solely the responsibility of SFC.</i></p>					
Justification: <ul style="list-style-type: none">Pumps will be approximately 20 years old by 2032 and approaching end of useful service life.					
Consequence of No Action: <ul style="list-style-type: none">The likelihood of failure of the pumps increases due to age and wear of the existing pump.					
Criticality: <div>▼</div> <table><tr><td>1</td><td>2</td><td>3</td></tr></table>			1	2	3
1	2	3			
DURATION (MONTHS)	12				
REQUIRED COMPLETION	2032				
TOTAL ESTIMATED COST	\$150,000				
FISCAL YEAR	ANTICIPATED FISCAL YEAR EXPENDITURE				
2032	\$150,000				



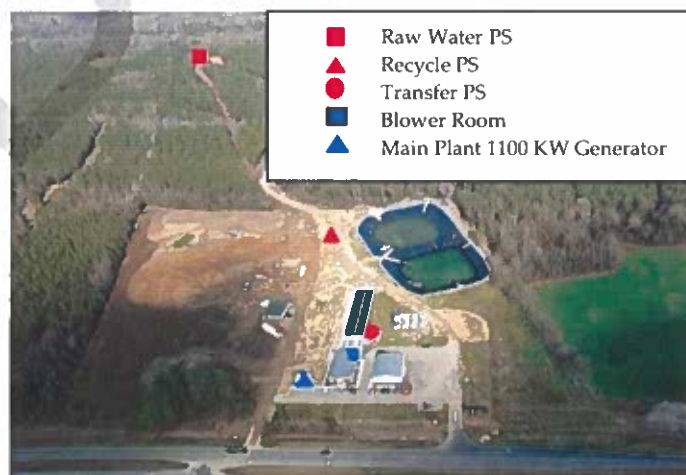
BLADEN BLUFFS REGIONAL SURFACE WATER FACILITY

PROJECT TITLE	Replace Three (3) Pumps at the Transfer Pump Station	BB 6			
CATEGORY:	Renewal/Rehabilitation				
Summary: <ul style="list-style-type: none">Routine replacement of three (3) aging pumps at the Transfer Pumping Station. <p><i>Note: Currently Smithfield Farmland Company (SFC) provides all operation and maintenance of the Bladen Bluffs Regional Surface Water Treatment Facility. The CIP project described on this sheet would only be required if the LCFWSA assumed full operation of the facility from SFC. Until such time all capital improvements and/or maintenance requirements are solely the responsibility of SFC.</i></p>					
Justification: <ul style="list-style-type: none">Pumps will be approximately 20 years old by 2032 and approaching end of useful service life.					
Consequence of No Action: <ul style="list-style-type: none">The likelihood of failure of the pumps increases due to age and wear of the existing pump.					
Criticality: <div>▼</div> <table><tr><td>1</td><td>2</td><td>3</td></tr></table>			1	2	3
1	2	3			
DURATION (MONTHS)	12				
REQUIRED COMPLETION	2032				
TOTAL ESTIMATED COST	\$250,000				
FISCAL YEAR	ANTICIPATED FISCAL YEAR EXPENDITURE				
2032	\$250,000				



BLADEN BLUFFS REGIONAL SURFACE WATER FACILITY

PROJECT TITLE	Replace Two (2) Generators at the Site	BB 7
CATEGORY:	Renewal/Rehabilitation	
Summary: <ul style="list-style-type: none">Routine replacement of two (2) aging on-site generators.		
<i>Note: Currently Smithfield Farmland Company (SFC) provides all operation and maintenance of the Bladen Bluffs Regional Surface Water Treatment Facility. The CIP project described on this sheet would only be required if the LCFWSA assumed full operation of the facility from SFC. Until such time all capital improvements and/or maintenance requirements are solely the responsibility of SFC.</i>		
Justification: <ul style="list-style-type: none">Facility currently has two (2) generators on-site. Generators will be approximately 25 years old by 2037 and approaching end of service life.		
Consequence of No Action: <ul style="list-style-type: none">The current generators are undersized to accommodate long term demands.The existing generators are anticipated to become cost prohibitive to maintain.		
Criticality: <div><div>▼</div><div><div>1</div><div>2</div><div>3</div></div></div>		
DURATION (MONTHS)	24	
REQUIRED COMPLETION	2037	
TOTAL ESTIMATED COST	\$700,000	
FISCAL YEAR	ANTICIPATED FISCAL YEAR EXPENDITURE	
2036	\$200,000	
2037	\$500,000	



BLADEN BLUFFS REGIONAL SURFACE WATER FACILITY

Annual Fiscal Year Budget Breakdown (In Millions of Dollars)

Project No.	Description	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041	FY 2042	FY 2043	FY 2044	FY 2045	FY 2046	Totals
BB 1	New High Service Pump Station							\$0.50	\$3.00																		\$3.50
BB 2	Construct New 1 MG Capacity Clearwell							\$0.50	\$2.00																		\$2.50
BB 3	Replace (3) Pumps at Raw Water Pump Station											\$0.25															\$0.20
BB 4	Replace Blower in Blower Building											\$0.10															\$0.10
BB 5	Replace (3) Pumps at the Recycle Pump Station														\$0.15												\$0.10
BB 6	Replace (3) Pumps at the Transfer Pump Station														\$0.25												\$0.25
BB 7	Replace (2) Generators at the Site															\$0.20	\$0.50										\$0.70
Total Fiscal Year Expenditure								\$1.00	\$5.00			\$0.35			\$0.40	\$0.20	\$0.50										\$7.35

APPENDIX A – OPERATIONS BUDGET

Annual Fiscal Year Budget Breakdown – Operations											
Item	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	Totals
Surveying		\$ 80,000									\$ 80,000
ROW Maintenance		\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 495,000
ROW Clearing		\$ 225,000	\$ 225,000								\$ 450,000
SCADA Improvements				\$ 125,000							\$ 125,000
Anti-Vortexing Improvements		\$ 50,000	\$ 50,000	\$ 50,000							\$ 150,000
Meter and Valve Upgrades/Replacements								\$ 125,000			\$ 125,000
VFD Replacements	\$ 250,000	\$ 250,000	\$ 250,000								\$ 750,000
Argo ATV	\$ 60,000										\$ 60,000
RR Trans	\$ 75,000	\$ 48,000	\$ 350,000	\$ 350,000							\$ 823,000
Miscellaneous	\$ 15,000										\$ 15,000
Total Fiscal Year Expenditure	\$ 400,000	\$ 708,000	\$ 930,000	\$ 580,000	\$ 5,000	\$ 55,000	\$ 55,000	\$ 180,000	\$ 55,000	\$ 55,000	\$ 3,073,000

AGENDA ITEM

To: CHAIRMAN RIVENBARK AND BOARD MEMBERS

From: TIM H. HOLLOMAN, EXECUTIVE DIRECTOR

Date: February 14, 2022

Re: Resolution of Lower Cape Fear Water and Sewer Authority Exempting Lower Cape Fear Water and Sewer Authority from the Provisions of N.C.G.S. §143-64.31 and Proposal for Professional Consulting Engineering Services Lower Cape Fear Water and Sewer Authority Kings Bluff Air Backwash and Walkway System Alternative Evaluation.

Reviewed and approved as to form: MATTHEW A. NICHOLS, AUTHORITY ATTORNEY

Background: A) Resolution of Lower Cape Fear Water and Sewer Authority Exempting Lower Cape Fear Water and Sewer Authority from the Provisions of N.C.G.S. §143-64.31

B) The Kings Bluff Raw Water Pump Station includes two (2) parallel intake systems that withdraw water from the Cape Fear River. Each intake includes three (3) screens (total of 6) that act as the primary entry point for raw water into the intake piping. Further, each intake has a dedicated air backwash system that is used to periodically clear the screens from sediment or deposits that build up over time. The air backwash systems are housed in wooden structures and are located approximately 1,100 feet from the Kings Bluff station at the bank of the Cape Fear River. The systems are accessed by a wooden pier/walkway over that traverse wetlands and low-lying inaccessible areas.

Action Requested: Approval of the proposal.

**A RESOLUTION OF
LOWER CAPE FEAR WATER & SEWER AUTHORITY
EXEMPTING LOWER CAPE FEAR WATER & SEWER AUTHORITY
FROM THE PROVISIONS OF N.C.G.S. §143-64.31**

Whereas, N.C.G.S. §143-64.31 requires Lower Cape Fear Water & Sewer Authority (the "Authority") to conduct an initial selection of firms to provide engineering services without regard to fee; and

Whereas, N.C.G.S. §143-64.32 permits the Authority to exempt projects from the provisions of N.C.G.S. §143-64.31 in the case of proposed projects where the estimated professional fee is less than \$50,000.00; and

Whereas, the Authority proposes to enter into a contract with McKim & Creed, Inc. for engineering services as described hereinafter; and

Whereas, the estimated professional fee for the work to be done by McKim & Creed, Inc. in connection with such project is less than \$50,000.00; and

Whereas, the Authority by its execution of this resolution intends to waive the requirements of N.C.G.S. §143-64.31.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of Lower Cape Fear Water & Sewer Authority as follows:

1. The Kings Bluff Raw Water Pump Station includes two (2) parallel intake systems that withdraw water from the Cape Fear River. Each intake includes three (3) screens (total of 6) that act as the primary entry point for raw water into the intake piping. Further, each intake has a dedicated air backwash system that is used to periodically clear the screens from sediment or deposits that build up over time. The air backwash systems are housed in wooden structures and are located approximately 1,100 feet from the Kings Bluff station at the bank of the Cape Fear River. The systems are accessed by a wooden pier/walkway over that traverse wetlands and low-lying inaccessible areas.
2. This Resolution shall be effective upon passage.

This Resolution adopted this 14th day of February 2022.

Charlie Rivenbark, Chairman

ATTEST:

Harry Knight, Secretary

**Resolution Authorizing the Chairman to Execute Proposal for Professional Consulting Engineering Services
Lower Cape Fear Water and Sewer Authority Kings Bluff Air Backwash and Walkway System Alternative
Evaluation**

Whereas, Lower Cape Fear Water & Sewer Authority (the Authority) will have McKim & Creed will provide this proposal for professional consulting to evaluate an alternative to replacement of the existing Kings Bluff air backwash and walkway system.; and

Whereas, The Kings Bluff Raw Water Pump Station includes two (2) parallel intake systems that withdraw water from the Cape Fear River. Each intake includes three (3) screens (total of 6) that act as the primary entry point for raw water into the intake piping. Further, each intake has a dedicated air backwash system that is used to periodically clear the screens from sediment or deposits that build up over time. The air backwash systems are housed in wooden structures and are located approximately 1,100 feet from the Kings Bluff station at the bank of the Cape Fear River. The systems are accessed by a wooden pier/walkway over that traverse wetlands and low-lying inaccessible areas; and

Whereas, Recent reviews of the walkway and buildings that house the air backwash systems yielded that the structures are in poor condition and need to be replaced in their entirety. The cost of replacement has been estimated at \$1.5M. This scope of work will evaluate an alternative to full scale replacement of the air backwash facilities that involves constructing a new air backwash facility at the Kings Bluff station and eliminating the structures and walkway that are currently in place. Primary components of this alternative include a new single air tank located at the Kings Bluff Pump Station, new air compressor system to charge the tank, new control system and valving to allow the single tank to serve both intakes, air piping from the station to the individual intake screens, visual observation options for ensuring the river are clear prior to backwash, and building a house control or primary components; and

Whereas, will prepare a Draft Technical Memorandum that details the findings and recommendations of the evaluation for review and comment by the Authority. Comments received will be incorporated as appropriate and a Final Technical Memorandum will be provided. The findings and recommendations will be presented to the Board of Directors as directed by the Executive Director; and

Whereas, the detailed proposal will have a fixed fee of \$7,000; and

Whereas, based on McKim & Creeds demonstrated competence and qualification for this type of professional services at a fair and reasonable price, the Authority proposes to enter a contract with McKim & Creed, Inc. for engineering services as described hereinafter.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of Lower Cape Fear Water & Sewer Authority as follows:

1. The project consisting of consulting engineering services by McKim & Creed McKim to professional consulting to evaluate an alternative to replacement of the existing Kings Bluff air backwash and walkway system. For the lump fee of \$7,000.00.
2. This Resolution shall be effective upon passage.

This Resolution adopted this 14th day of February 2022.

Charlie Rivenbark, Chairman

ATTEST:

Harry Knight, Secretary



ENGINEERS

SURVEYORS

PLANNERS

February 1, 2022

220407

Mr. Tim Holloman, Executive Director
 Lower Cape Fear Water & Sewer Authority
 1107 New Pointe Blvd Suite 17
 Leland, NC 28451

Re: **Proposal for Professional Consulting Engineering Services**
Lower Cape Fear Water & Sewer Authority
Kings Bluff Air Backwash and Walkway System
Alternative Evaluation

Dear Mr. Holloman:

McKim & Creed appreciates the opportunity to provide this proposal for professional consulting to evaluate an alternative to replacement of the existing Kings Bluff air backwash and walkway system. Our detailed scope of services is provided as follows:

I. Scope of Services

The Kings Bluff Raw Water Pump Station includes two (2) parallel intake systems that withdraw water from the Cape Fear River. Each intake includes three (3) screens (total of 6) that act as the primary entry point for raw water into the intake piping. Further, each intake has a dedicated air backwash system that is used to periodically clear the screens from sediment or deposits that build up over time. The air backwash systems are housed in wooden structures and are located approximately 1,100 feet from the Kings Bluff station at the bank of the Cape Fear River. The systems are accessed by a wooden pier/walkway over that traverse wetlands and low-lying inaccessible areas.

Recent reviews of the walkway and buildings that house the air backwash systems yielded that the structures are in poor condition and need to be replaced in their entirety. The cost of replacement has been estimated at \$1.5M. This scope of work will evaluate an alternative to full scale replacement of the air backwash facilities that involves constructing a new air backwash facility at the Kings Bluff station and eliminating the structures and walkway that are currently in place. Primary components of this alternative include:

243 North Front Street

Wilmington, NC 28401

910.343.1048

Fax 910.251.9282

www.mckimcreed.com

P:\PW22\220407 LCF Air Backwash Alt Eval\Proposal 220407 Air Backwash Alt Evaluation.doc

Mr. Tim Holloman, Executive Director
 Lower Cape Fear Water and Sewer Authority
 February 1, 2022
 Page 2

- New single air tank located at the Kings Bluff Pump Station.
- New air compressor system to charge the tank
- New control system and valving to allow the single tank to serve both intakes
- Air piping from the station to the individual intake screens.
- Visual observation options for ensuring the river is clear prior to backwash
- Building to house control or primary components

McKim & Creed will evaluate the proposed alternative to determine feasibility at the current facility. Primary tasks will include:

- 1) Evaluate technical applicability of the backwash system in the proposed location.
- 2) Recommended air tank sizing and configuration (vertical or horizontal).
- 3) Recommended pressure/volume requirements for the proposed air tank.
- 4) Recommended control system feasibility to operate the tank for each screen. Visual observation options to ensure river is clear prior to backwash.
- 5) Air compressor evaluation to include size and pressure requirements.
- 6) Air pipe material and diameter recommendations to include suitable installation methods.
- 7) Review and recommendation for connection to existing screen air piping.
- 8) Proposed site configuration and layout of alternative system at the Kings Bluff system.
- 9) Opinion of probable project costs.
- 10) Anticipated schedule for implementation.

We will prepare a Draft Technical Memorandum that details the findings and recommendations of the evaluation for review and comment by the Authority. Comments received will be incorporated as appropriate and a Final Technical Memorandum will be provided. The findings and recommendations will be presented to the Board of Directors as directed by the Executive Director.

II. Fee Compensation

McKim & Creed will complete the work detailed in this proposal for the fixed fee of \$7,000.

Mr. Tim Holloman, Executive Director
 Lower Cape Fear Water and Sewer Authority
 February 1, 2022
 Page 3

Miscellaneous Conditions

- 1.5% per month on overdue invoices.
- Either party may terminate with a 30-day notice.

III. Schedule

We anticipate completing all work outlined in this document by March 21, 2022 for review by the Authority staff. We will plan to present findings to the Board of Directors in the April 2022 regular meeting.

IV. Additional Services

The Professional Services stated herein above do not include the costs for services identified below. However, these services can be provided if requested for a negotiated fee commensurate with the identified scope of services.

- Preliminary Engineering Reports
- Environmental Assessments
- Design Services
- Permitting Services
- Bid & Award Phase Services
- Survey or Subsurface Utility Engineering Services
- Construction Administration and Construction Observation Services
- Condition assessment of facilities
- Permit or application fees
- Court appearances for expert witness.
- Design of demolition or abandonment of existing facilities
- Environmental Impact Statements, or surveys for endangered species.
- Court appearances for litigation, or preparation for the same

ACCEPTANCE AND AUTHORIZATION

If this proposal is acceptable, please sign below as indicated and return one executed copy to our office. Upon receipt, McKim & Creed will consider this as the authorization to proceed.

Mr. Tim Holloman, Executive Director
 Lower Cape Fear Water and Sewer Authority
 February 1, 2022
 Page 4

We appreciate the opportunity to provide these services and look forward to our continuing work with the Authority. If you have any questions, please do not hesitate to contact me.

Sincerely,

McKIM & CREED, Inc.



Tony Boahn, PE
 Vice-President

Enclosure: McKim & Creed, Inc. Engineering Division General Conditions
 (01/2011-01)

Accepted by:

LOWER CAPE FEAR WATER & SEWER AUTHORITY

NAME: Charlie Rivenbark

SIGNATURE: _____

TITLE: Chairman, Board of Directors

DATE: _____

E-Verify Requirement. As a condition of payment for services rendered under this agreement, Engineer shall comply with the requirements of Article 2 of Chapter 64 of the North Carolina General Statutes (requirement that employers use E-Verify). Further, if Engineer provides the services to the Client utilizing a subcontractor, Engineer shall require the subcontractor to comply with the requirements of Article 2 of Chapter 64 of the North Carolina General Statutes as well. Engineer shall verify by affidavit compliance with the terms of this section upon request of Client.

This instrument has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act, this the ____ day of _____, 2022

 Finance Officer, Lower Cape Fear Water and Sewer Authority

McKim & Creed, Inc.
Engineering Division
General Conditions
(01/2011-1)

Billing and Payment. Invoices will be submitted by McKim & Creed, Inc. (the "Engineer") to the Client monthly for services performed and expenses incurred pursuant to this Agreement. Payment of each such invoice will be due upon receipt and considered past due if not paid within thirty (30) days of the date of the invoice. Any retainers shall be credited on the final invoice.

a) Interest. A service charge will be added to delinquent accounts at 18 percent per annum (1.5 percent per month).

b) Suspension of Services. If the Client fails to make any payment due the Engineer for services and expenses within thirty (30) days of the invoice date on the project(s) covered by this agreement or any other project(s) being performed by Engineer for Client, the Engineer may suspend services under this Agreement until it has been paid in full for all past due amounts owed by Client for services and expenses. The Engineer shall have no liability whatsoever to the Client for any costs or damages occurring as a result of such suspension caused by any such breach of this Agreement by Client.

c) Collection Costs. In the event legal action is necessary to enforce the payment provisions of this Agreement, the Engineer shall be entitled to collect from the Client any judgment or settlement sums due, reasonable attorneys' fees, court costs.

d) Termination Of Services. The failure of the Client to make payment to the Engineer in accordance with the payment terms set forth herein shall constitute a material breach of this Agreement and shall entitle the Engineer, at its option, to terminate the Agreement. Any material breach of this Agreement by the Client shall, at the Engineer's option and in its sole discretion, constitute a breach of and default under any and/or all other agreements between the Client and Engineer.

Confidentiality. The Engineer agrees to keep confidential and not to disclose to any person or entity, other than the Engineer's employees, sub-consultants and the general contractor and subcontractors, if appropriate, any data and information not previously known to and generated by the Engineer or furnished to the Engineer and marked CONFIDENTIAL by the Client. These provisions shall not apply to information in whatever form that comes into the public domain, nor shall it restrict the Engineer from giving notices required by law or complying with an order to provide information or data when such order is issued by a court, administrative agency or other authority with proper jurisdiction, or if it is reasonably necessary for the Engineer to defend itself from any suit or claim.

~~The Client agrees that the technical methods, techniques and pricing information contained in any proposal submitted by the Engineer pertaining to this project or in this Agreement or any addendum thereto, are to be considered confidential and proprietary, and shall not be released or otherwise made available to any third party without the express written consent of the Engineer.~~

Consequential Damages. Notwithstanding any other provision of the Agreement, neither party shall be liable to the other for any consequential damages incurred due to the fault of the other party, regardless of the nature of the fault or whether it was committed by the Client or the Engineer, their employees, agents, sub-consultants or subcontractors. Consequential damages include, but are not limited to, loss of use and lost profit.

Non-Contingency. The Client acknowledges and agrees that the payment for services rendered and expenses incurred by the Engineer pursuant to this Agreement is not subject to any contingency unless the same is expressly set forth in this Agreement. Payments to the Engineer shall not be withheld, postponed or made contingent on the financing, construction, completion or success of the project or upon receipt by the Client of offsetting reimbursement or credit from other parties causing Additional Services or expenses. No withholdings, deductions or offsets shall be made from the Engineer's compensation for any reason.

Opinions of Cost.

(a) Since the Engineer has no control over the cost of labor, materials, equipment or services furnished by others, or over methods of determining prices, or over competitive bidding or market conditions, any and all opinions as to costs rendered hereunder, including but not limited to opinions as to the costs of construction and materials, are estimates only and shall be made on the basis of its experience and qualifications and represent its best judgment as an experienced and qualified professional engineer, familiar with the construction industry; but the Engineer cannot and does not guarantee that proposals, bids or actual costs will not vary from opinions of probable cost prepared by it and the Engineer shall have no liability whatsoever if the actual cost differs from the Engineers estimate. If at any time the Client wishes greater assurance as to the amount of any cost, Client shall employ an independent cost estimator to make such determination. Engineering services required to bring costs within any limitation established by the Client will be paid for as additional services hereunder by the Client.

Termination. The obligation to provide further services under this Agreement may be terminated by either party upon seven (7) days' written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party. In the event of any termination, the Engineer shall provide a final statement of charges due and will be paid for all services rendered to the date of termination, all expenses subject to reimbursement hereunder, and other reasonable expenses incurred by the Engineer as a result of such termination. In the event the Engineer's compensation under this Agreement is a fixed fee, upon such termination the amount payable to the Engineer for services rendered will be determined using a proportional amount of the total fee based on a ratio of the amount of the work done, as reasonably determined by the Engineer, to the total amount of work which was to have been performed, less prior partial payments, if any, which have been made.

Reuse of Documents. All documents, including but not limited to drawings and specifications, prepared by the Engineer pursuant to this Agreement are related exclusively to the services described herein. They are not intended or represented to be suitable for reuse by the Client or others on extensions of this project or on any other project. Any reuse without written verification or adaptation by the Engineer for specific purposes intended will be at the Client's sole risk and without liability or legal exposure to the Engineer. The Client releases the Engineer harmless from all claims that the Client may have against the Engineer and arising out of any unauthorized reuse.

McKim & Creed, Inc.
Engineering Division
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Limitation of Liability. In performing its professional services hereunder, the Engineer will use that degree of care and skill ordinarily exercised, under similar circumstances, by reputable members of its profession practicing in the same or similar locality. No other warranty, express or implied, is made or intended by the Engineer's undertaking herein or its performance of services hereunder. THE CLIENT UNDERSTANDS AND AGREES THAT THE ENGINEER HAS NOT MADE AND IS NOT MAKING ANY PROMISE, WARRANTY OR REPRESENTATION EXCEPT THE WARRANTIES EXPRESSLY MADE HEREIN, AND THE ENGINEER EXPRESSLY DISCLAIMS ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER IMPLIED WARRANTIES. Under no circumstances shall the Engineer be liable for extra costs or other consequences due to changed conditions or for costs related to the failure of the contractor or material men to install work in accordance with the plans and specifications. The Engineer shall not be liable for ~~errors in judgment or~~ for any loss or damage, which occurs for any reason beyond the control of the Engineer. ~~No action may be instituted hereunder more than one year after the cause of action accrued or should have been discovered by reasonable diligence.~~ The provisions of this paragraph shall survive the termination of this Agreement.

Controlling Law. This Agreement is to be governed by the law of the State of North Carolina. ~~The parties agree that any suit or action related to this Agreement shall be instituted and prosecuted in the courts of the County of Wake, State of North Carolina, and each party waives any right or defense relating to such jurisdiction or venue.~~

Binding Effect. This Agreement shall bind, and the benefits thereof shall inure to the respective parties hereto, their legal representatives, executors, administrators, successors and permitted assigns.

Merger; Amendment. This Agreement constitutes the entire agreement between the Engineer and the Client with respect to its subject matter, and all negotiations and oral understandings between the parties are merged herein. This Agreement can be supplemented and/or amended only by a written document executed by both the Engineer and the Client.

Ownership Of Instruments Of Service. All reports, plans, specifications, field data, notes and other documents, including all documents on electronic media, prepared by the Engineer as instruments of service shall become the property of the Owner. The Owner shall retain all common law, statutory and other reserved rights, including the copyright thereto. If the Owner uses any reports, plans, specification, field data, notes or other documents ("documents") for any project other than the specific project for which the documents were intended, then Owner waives any claims for damages related to these other projects.

Photographs. Photographs of any completed project embodying the services of the Engineer provided hereunder may be made by the Engineer and shall be considered as its property, and may be used by it for publication.

Assignment. Neither party to this Agreement shall transfer, sublet or assign any rights under or interest in this Agreement, including but not limited to fees that are due or fees that may be due, without the prior written consent of the other party.

Archiving of Project Documentation. Engineer shall maintain copies of printed project documentation for a period of three years from substantial completion of Engineer's services. Engineer shall maintain copies of all electronic media related to the project for a period of one year from substantial completion of Engineer's services. Requests for reproduction of project documentation after these periods have expired will be considered additional services and will be invoiced at the Engineer's prevailing hourly rates at the time of the request, plus expenses.

Betterment. If, due to the Engineer's error, any required item or component of the project is omitted from the Engineer's construction documents, the Engineer shall not be responsible for paying the cost to add such item or component to the extent that such item or component would have been otherwise necessary to the project or otherwise adds value or betterment to the project. In no event will the Engineer be responsible for any cost or expense that provides betterment, upgrade or enhancement of the project.

Electronic Files. Because data stored on electronic media can deteriorate undetected or be modified without the Engineer's knowledge, the Client agrees that it will accept responsibility for the completeness, correctness, or readability of any electronic media delivered to the Client after an acceptance period of 30 days after delivery of the electronic files, and that upon the expiration of this acceptance period, Client will release, indemnify and save harmless the Engineer from any and all claims, losses, costs, damages, awards or judgments arising from use of the electronic media files or output generated from them. The Engineer agrees that it is responsible only for the printed and sealed drawings and documents, and if there is a conflict between these printed documents and the electronic media, the sealed documents will govern. Engineer makes no warranties, express or implied, under this agreement or otherwise, in connection with the Engineer's delivery of electronic files.

Certifications, Guarantees and Warranties. The Engineer shall not be required to sign any documents, no matter by whom they may be requested, that would result in the Engineer's having to certify, guarantee or warrant the existence of conditions which the Engineer cannot ascertain. The Client also agrees that it has no right to make the resolution of any dispute with the Engineer or the payment of any amounts due to the Engineer in any way contingent upon the Engineer's signing any such certification.

Corporate Protection. It is intended by the parties to this Agreement that the Engineer's services in connection with the project shall not subject the Engineer's individual employees, officers or directors to any personal legal exposure for the risks associated with this project. Therefore, and notwithstanding anything to the contrary contained herein, the Client agrees that as the Client's sole and exclusive remedy, any claim, demand or suit shall be directed and/or asserted only against the Engineer, a North Carolina corporation, and not against any of the Engineer's employees, shareholders, officers or directors.

Job-Site Safety. Neither the professional activities of the Engineer, nor the presence of the Engineer or its employees and sub-consultants at a construction site, shall relieve the General Contractor and any other entity of their obligations, duties and responsibilities including, but not limited to, construction means, methods, sequence, techniques or procedures necessary for performing, superintending or coordinating all portions of the Work of construction in accordance with the contract documents and any health or safety precautions required by any regulatory

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agencies. The Engineer and its personnel have no authority to exercise any control over any construction contractor or other entity or their employees in connection with their work or any health or safety precautions. The Client agrees that the General Contractor is solely responsible for job-site safety, and warrants that this intent shall be made evident in the Client's agreement with the General Contractor. ~~The Client also agrees that the Client, the Engineer and the Engineer's consultants shall be indemnified and shall be made additional insured under the General Contractor's general liability insurance policy.~~ The Client, upon written request of the Engineer, agrees to use its best efforts to add the Engineer as an additional insured on the contractor's general liability and auto liability policies.

Scope of Services. Services not set forth as Basic Services or Additional Services and listed in this Agreement are excluded from the scope of the Engineer's services and the Engineer assumes no responsibility to perform such services.

Severability And Survival. Any provision of this Agreement later held to be unenforceable for any reason shall be deemed void, and all remaining provisions shall continue in full force and effect. All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating responsibility or liability between the Client and the Engineer shall survive the completion of the services hereunder and the termination of this Agreement.

Shop Drawing Review. If included in the scope of services to be provided, the Engineer shall review and approve Contractor submittals, such as shop drawings, product data, samples and other data, as required by the Engineer, but only for the limited purpose of checking for conformance with the design concept and the information expressed in the contract documents. This review shall not include review of the accuracy or completeness of details, such as quantities, dimensions, weights or gauges, fabrication processes, construction means or methods, coordination of the work with other trades or construction safety precautions, all of which are the sole responsibility of the Contractor. The Engineer's review shall be conducted with reasonable promptness while allowing sufficient time in the Engineer's judgment to permit adequate review. Review of a specific item shall not indicate that the Engineer has reviewed the entire assembly of which the item is a component. The Engineer shall not be responsible for any deviations from the contract documents not brought to the attention of the Engineer in writing by the Contractor and approved by the Engineer. The Engineer shall not be required to review partial submissions or those for which submissions of correlated items have not been received.

Specification Of Materials. The Client understands and agrees that products or building materials, which are permissible under current building codes or ordinances may, at some future date, be banned or limited in use in the construction industry because of presently unknown hazardous characteristics. The Client agrees that if the Client directs the Engineer to specify any product or material, after the Engineer has informed the Client that such product or material may not be suitable or may embody characteristics that are suspected of causing or may cause the product or material to be considered a hazardous substance in the future, the Client waives all claims as a result thereof against the Engineer. ~~The Client further agrees that if any product or material specified for this project by the Engineer shall, at any future date be suspected or discovered to be a health or safety hazard, the Client hereby releases the Engineer from any and all~~

~~liabilities and waives all claims against the Engineer relating thereto.~~

Standard Of Care. Services provided by the Engineer under this Agreement will be performed in a manner consistent with that degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances in the same geographic area.

Suspension Of Services. If the project is suspended for more than thirty (30) calendar days in the aggregate, the Engineer shall be compensated for services performed and charges incurred prior to such suspension and, upon resumption of services, the Engineer shall be entitled to an equitable adjustment in fees to accommodate the resulting demobilization and re-mobilization costs. In addition, there shall be an equitable adjustment in the project schedule based on the delay caused by the suspension. If the project is suspended for more than ninety (90) calendar days in the aggregate, the Engineer may, at its option, terminate this Agreement upon giving notice in writing to the Client.

Unauthorized Changes To Documents. In the event the Client consents to, allows, authorizes or approves of changes to any plans, specifications, construction documents or electronic media, and these changes are not approved in writing by the Engineer, the Client recognizes that such changes and the results thereof are not the responsibility of the Engineer. Therefore, the Client releases the Engineer from any liability arising from the construction, use or result of such changes. ~~In addition, the Client agrees, to the fullest extent permitted by law, to indemnify and hold the Engineer harmless from any damage, liability or cost (including reasonable attorneys' fees and costs of defense) arising from such changes.~~

Compensation for Additional Services. The undertaking of the Engineer to perform professional services under this Agreement extends only to those services specifically described herein. If upon the request of the Client, the Engineer agrees to perform additional services hereunder, the Client and the Engineer shall negotiate and agree upon an additional fee to be paid to the Engineer for completion of the agreed upon Additional Services. The Engineer will be under no obligation to begin or complete requested Additional Services until the additional fee has been negotiated and agreed upon in writing by the Client and the Engineer.

Hourly Billing Rates. All services to be billed on an hourly basis under this agreement will be billed using the Engineer's prevailing billing rate schedule at the time services are provided. If a specific rate schedule is to be used for this Agreement, it shall expire no later than one year from the date of this Agreement and will be replaced with the prevailing rate schedule in effect at that time.

Priority Over Form Agreements. The parties agree that the provisions of this Agreement shall control and govern over any Work Orders, Purchase Orders or other documents, which the Client may issue to Engineer in regard to the project(s) which is (are) the subject of this Agreement. The Client may issue such documents to Engineer for its convenience for accounting or other purposes, but any such Orders will not alter the terms of this Agreement, regardless of any contrary language appearing therein.

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Engineering Division
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Paragraph Headings. The paragraph headings contained in this Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement.

Third Parties. Nothing in this Agreement shall be construed as giving any person, firm, corporation or other entity other than the parties to this Agreement and their respective successors and permitted assigns, any right, remedy or claim under or in respect of this Agreement or any of its provisions.

Default. The Client shall be in default under this Agreement if (i) it fails to pay in full any invoice from the Engineer on the due date or fails to make any other payment due to the Engineer under this Agreement, (ii) it fails to observe or perform any other term, condition or covenant under this Agreement, (iii) it breaches any warranty or representation made under this Agreement, (iv) it dissolves, terminates or liquidates its business, or its business fails or its legal existence is terminated or suspended, (v) any voluntary or involuntary bankruptcy, reorganization, insolvency, receivership, or other similar proceeding is commenced by or against the Client, or (vi) it becomes insolvent, makes an assignment for the benefit of creditors, or conveys substantially all of its assets.

Design Without Construction Phase Services. If the services to be provided by Engineer hereunder do not include construction observation and/or construction administration services, or if such services are included in Engineers contracted services and Client later decides to perform these services itself or decides to retain other consultants or individuals to perform these services, Engineer assumes no responsibility for interpretations of the Engineer's services or for any construction observation, construction administration and/or supervision performed by Client or other parties and Client waives any and all claims against Engineer for any losses, claims, costs or damages of any kind whatsoever that may be in any way connected thereto.

~~In addition Client agrees, to the fullest extent permitted by law, to indemnify and hold Engineer harmless from any loss, claim, damage or cost, including reasonable attorneys' fees and costs of defense, arising or resulting from the performance of construction observation, construction administration and/or supervision by Client, its employees, agents or consultants, and including any and all claims arising from the modification or adjustment of, or any clarifications or interpretations of, the Engineer's Work by others.~~

~~Unless, in the Engineer's sole opinion, appropriate levels of construction observation and construction administration services are contracted for and performed by Engineer, Engineer will not be responsible to provide any engineering or other certifications related to the construction or installation of any improvements.~~

Reliance on Data Provided by Others. Engineer shall be entitled to reasonably rely on the accuracy of information provided to it by Client or any of Client's other consultants or sub-consultants. Engineer shall not be responsible to extensively review the information provided to insure the accuracy thereof. Client agrees to not hold Engineer responsible for errors or omissions in Engineer's work that are directly attributable to errors or incorrect data provided to Engineer by Client or Client's other consultants. Client further acknowledges that any redesign or corrective efforts required by Engineer resulting from incorrect information provided by Client or Client's other consultants will be paid for by the Client as additional services.

Credit and Financial Obligations. Prior to commencement of the work, Engineer may require that Client provide reasonable credit information and other documentation to confirm that the Client has made financial arrangements to fulfill the Client's payment obligations under this Agreement. Engineer may also require such information at any time during the performance of Engineer's services should the Client fail to make payments per this Agreement, a change in the scope materially changes the contract sum, or Engineer identifies in writing a reasonable concern regarding the Client's ability to make payment when payment is due. The Client may be required to furnish this information prior to further commencement or continuation of services by Engineer and Engineer shall not be responsible for the cost of any delay occurring as a result of such a request.

Markup on Expenses. Unless specified otherwise in our proposal, all sub consultant costs and other project related costs incurred by Engineer will be billed with a 15% markup. Company vehicle mileage and internal reproduction costs will be billed at the Engineer's prevailing rate for those items. Personal vehicle mileage costs incurred on the project by employees of Engineer will be billed at the prevailing IRS mileage rate in effect at the time of travel.

SUE Technical Standards. Quality Level A information obtained by direct exposure of the existing utilities can greatly increase the level of confidence with respect to the location of underground utilities at a particular jobsite. Utility exposure (Quality Level A) permits three-dimensional measurements to be taken on utilities for accurate location at each test hole. The overall level of confidence with respect to the location of site utilities can be raised by increasing the number of test holes examined; however, Engineer provides no guarantee of the location of utilities on the site other than at the locations where test holes have been established.

Quality Level B services include the horizontal, above ground detection, marking and mapping of underground utilities. Geophysical prospecting methods are used to indicate the presence and surface position of buried utilities. Utilities are identified and marked in the field in order to be surveyed and mapped. Quality Level B information should not be used for construction purposes, or where exact horizontal and vertical measurements are required.

The accuracy of Quality Level B designating information and depth of cover readings obtained by utilizing Geophysical and Ground Penetrating Radar equipment and techniques are subject to field and soil conditions beyond our control. Engineer will make reasonable efforts to provide comprehensive and correct positional utility marks to the limits obtainable by the instrumentation used and the existing ground conditions; however, Engineer provides no guarantee that all existing utilities on a particular site will be properly located using these methods.

Utilizing Engineer's SUE services does not relieve any party from their obligation to contact the utility damage prevention system before digging begins. Utility marks placed on the ground by Engineer are not to be used for construction purposes.

**McKim & Creed, Inc.
Engineering Division
General Conditions
(01/2011-1)**

INSURANCE. Engineer shall take out and maintain during the life of this Contract the following insurance:

- a. Statutory Workers Compensation insurance;
- b. Comprehensive General Liability insurance in an amount of \$1,000,000.00 for each occurrence and \$2,000,000.00 aggregate;
- c. Automobile Insurance in an amount of \$1,000,000.00

Client shall be named as an additional insured on the Comprehensive General Liability and Automobile insurance policies. Prior to commencing work, Engineer shall provide evidence that the required insurance is in place. Each policy shall provide that Client shall receive not less than thirty days prior written notice of any cancellation, non-renewal or reduction of coverage of any of the policies.

AGENDA ITEM

To: CHAIRMAN RIVENBARK AND BOARD MEMBERS

From: TIM H. HOLLOMAN, EXECUTIVE DIRECTOR

Date: February 14, 2022

Re: Resolution of Lower Cape Fear Water and Sewer Authority Exempting Lower Cape Fear Water and Sewer Authority from the Provisions of N.C.G.S. §143-64.31 and Proposal for Professional Consulting Engineering Services Existing 48" Aerial Crossing at Livingston Creek Structural Design for Access Platform

Reviewed and approved as to form: MATTHEW A. NICHOLS, AUTHORITY ATTORNEY

Background: A) Resolution of Lower Cape Fear Water and Sewer Authority Exempting Lower Cape Fear Water and Sewer Authority from the Provisions of N.C.G.S. §143-64.31

B) McKim & Creed will provide structural design drawings and specifications for the addition of an access platform for inspection purposes to the existing 48" raw water main aerial crossing at Living Creek. The Engineer's opinion of probable construction cost will be provided along with the final documents.

Action Requested: Approval of the proposal.

**A RESOLUTION OF
LOWER CAPE FEAR WATER & SEWER AUTHORITY
EXEMPTING LOWER CAPE FEAR WATER & SEWER AUTHORITY
FROM THE PROVISIONS OF N.C.G.S. §143-64.31**

Whereas, N.C.G.S. §143-64.31 requires Lower Cape Fear Water & Sewer Authority (the "Authority") to conduct an initial selection of firms to provide engineering services without regard to fee; and

Whereas, N.C.G.S. §143-64.32 permits the Authority to exempt projects from the provisions of N.C.G.S. §143-64.31 in the case of proposed projects where the estimated professional fee is less than \$50,000.00; and

Whereas, the Authority proposes to enter into a contract with McKim & Creed, Inc. for engineering services as described hereinafter; and

Whereas, the estimated professional fee for the work to be done by McKim & Creed, Inc. in connection with such project is less than \$50,000.00; and

Whereas, the Authority by its execution of this resolution intends to waive the requirements of N.C.G.S. §143-64.31.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of Lower Cape Fear Water & Sewer Authority as follows:

1. McKim & Creed will provide structural design drawings and specifications for the addition of an access platform for inspection purposes to the existing 48" raw water main aerial crossing at Living Creek. The Engineer's opinion of probable construction cost will be provided along with the final documents.
2. This Resolution shall be effective upon passage.

This Resolution adopted this 14th day of February 2022.

Charlie Rivenbark, Chairman

ATTEST:

Harry Knight, Secretary

Resolution Authorizing the Chairman to Execute Proposal for Professional Consulting Engineering Services Lower Cape Fear Water and Sewer Authority for Existing 48" Aerial Crossing at Livingston Creek Structural Design for Access Platform

Whereas, Lower Cape Fear Water & Sewer Authority (the Authority) will have McKim & Creed will provide structural design drawings and specifications for the addition of an access platform for inspection purposes to the existing 48" raw water main aerial crossing at Living Creek. The Engineer's opinion of probable construction cost will be provided along with the final documents; and

Whereas, a 50% design submittal will be prepared for review and comments. The 100% preliminary design documents will include final structural design drawings, final technical specifications, two hard copies of the 50% design submittal, electronic format copy will also be provided, and opinion of probable construction cost for the final design; and

Whereas, a 100% design submittal will be prepared for review and comments. The 50% preliminary design documents will include structural design drawings, technical specifications, two hard copies of the 50% design submittal, and electronic format copy will also be provided; and

Whereas, primary tasks will include the following additional survey of the project area, the project will utilize survey information from Kings Bluff 54" raw water main project, new site visits to verify existing current conditions, non-destructive testing of existing piping, concrete, steel or masonry requiring investigations or materials testing, that includes coring or sampling, x-ray, sonar or ground penetrating radar, or dye penetrant, testing of existing anchor bolt, connection bolt, or welded material capacities, testing of existing material for chemical composition of material grades, load testing to verify existing assembly deflections, fee for construction administration services, and geotechnical or material sub-consultant engineering services; and

Whereas, the detailed proposal will have a lump fee of \$9,800; and

Whereas, based on McKim & Creeds demonstrated competence and qualification for this type of professional services at a fair and reasonable price, the Authority proposes to enter a contract with McKim & Creed, Inc. for engineering services as described hereinafter.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of Lower Cape Fear Water & Sewer Authority as follows:

1. The project consisting of consulting engineering services by McKim & Creed McKim to assist the Authority Existing 48" Aerial Crossing at Livingston Creek Structural Design for Access Platform for the lump fee of \$9,800.00.
2. This Resolution shall be effective upon passage.

This Resolution adopted this 14th day of February 2022.

Charlie Rivenbark, Chairman

ATTEST:

Harry Knight, Secretary



ENGINEERS

SURVEYORS

PLANNERS

February 3, 2021

M&C 220423

Mr. Tim Holloman, Executive Director
 Lower Cape Fear Water & Sewer Authority
 1107 New Pointe Blvd Suite 17
 Leland, NC 28451

RE: **Proposal for Professional Consulting Engineering Services**
Existing 48" Aerial Crossing at Livingston Creek
Structural Design for Access Platform

Dear Mr. Holloman:

McKim & Creed appreciates the opportunity to provide this proposal for professional consulting services for the reference project. Our detailed scope of services is provided as follows:

Scope of Services

McKim & Creed will provide structural design drawings and specifications for the addition of an access platform for inspection purposes to the existing 48" raw water main aerial crossing at Livingston Creek. The Engineer's opinion of probable construction cost will be provided along with the final documents.

A kick-off meeting will be held to discuss design considerations prior to the start of design. Regarding the scope of services, note the following:

50% Design Submittal - A 50% design submittal will be prepared for review and comments. The 50% preliminary design documents will include the following:

- Structural Design Drawings
- Technical specifications

The 50% design deliverable will include:

- Two (2) hard copies of the 50% design submittal.
- Electronic format (PDF) copy will also be provided.

243 North Front Street

Wilmington, NC 28401

910.343.1048

Fax 910.251.8282

www.mckimcreed.com

100% Design Submittal – A 100% design submittal will be prepared for review and comments. The 100% design documents will include the following:

- Final Structural Design Drawings
- Final Technical Specifications

The 100% design deliverable will include:

- Two (2) hard copies of the final design submittal.
- Electronic format (PDF) copy will also be provided.
- Opinion of Probable Construction Cost for the final design.

Exclusions

Our scope of services does not include the following:

1. Additional survey of the project area. The project will utilize survey information from the Kings Bluff 54" Raw Water Main project.
2. New site visits to verify existing current conditions.
3. Non-destructive testing of existing piping, concrete, steel or masonry requiring investigation or material testing, that includes coring or sampling, x-ray, sonar or ground penetrating radar, or dye penetrant. In the event such testing is warranted an amendment to the proposal will be provided to the Client subject for approval.
4. Testing of existing anchor bolt, connection bolt, or welded material capacities.
5. Testing of existing material for chemical composition or material grades.
6. Load testing to verify existing assembly deflections.
7. Fee for construction administration services
8. Geotechnical or material sub-consultant engineering services.

Deliverables

Our project deliverable will be a complete set of design drawings and specifications, including engineer's opinion of probable construction cost, for the proposed aerial inspection platform to be constructed.

Project Schedule

Upon executed Notice to Proceed, we anticipate the following schedule.

Task	Task Duration (Calendar Days)	Cumulative Calendar Days
Notice to Proceed	1	1
50% Design	21	21
Review Period	7	28
Complete Design Phase	14	42

Fee

We propose to perform this work for a lump sum cost not to exceed nine thousand and eight hundred dollars (\$9,800.00).

Acceptance

If acceptable, sign and return (1) copy of this document and all attachments for our files. Our receipt of the executed copy of this proposal will serve as our Notice to Proceed. This proposal is valid for thirty (30) days from the date of the proposal.

McKim & Creed looks forward to working with you on this project.

Sincerely,

McKIM & CREED, INC.



Jess Powell, P.E.
Project Manager

Enclosure: McKim & Creed, Inc. Engineering Division General Conditions
(01/2011-01)

Accepted by:

LOWER CAPE FEAR WATER & SEWER AUTHORITY

NAME: Charlie Rivenbark

SIGNATURE: _____

TITLE: Chairman, Board of Directors

DATE: _____

E-Verify Requirement. As a condition of payment for services rendered under this agreement, Engineer shall comply with the requirements of Article 2 of Chapter 64 of the North Carolina General Statutes (requirement that employers use E-Verify). Further, if Engineer provides the services to the Client utilizing a subcontractor, Engineer shall require the subcontractor to comply with the requirements of Article 2 of Chapter 64 of the North Carolina General Statutes as well. Engineer shall verify by affidavit compliance with the terms of this section upon request of Client.

This instrument has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act, this the ____ day of _____, 2022

Finance Officer, Lower Cape Fear Water and Sewer Authority

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Billing and Payment. Invoices will be submitted by McKim & Creed, Inc. (the "Engineer") to the Client monthly for services performed and expenses incurred pursuant to this Agreement. Payment of each such invoice will be due upon receipt and considered past due if not paid within thirty (30) days of the date of the invoice. Any retainers shall be credited on the final invoice.

a) Interest. A service charge will be added to delinquent accounts at 18 percent per annum (1.5 percent per month).

b) Suspension of Services. If the Client fails to make any payment due the Engineer for services and expenses within thirty (30) days of the invoice date on the project(s) covered by this agreement or any other project(s) being performed by Engineer for Client, the Engineer may suspend services under this Agreement until it has been paid in full for all past due amounts owed by Client for services and expenses. The Engineer shall have no liability whatsoever to the Client for any costs or damages occurring as a result of such suspension caused by any such breach of this Agreement by Client.

c) Collection Costs. In the event legal action is necessary to enforce the payment provisions of this Agreement, the Engineer shall be entitled to collect from the Client any judgment or settlement sums due, reasonable attorneys' fees, court costs.

d) Termination Of Services. The failure of the Client to make payment to the Engineer in accordance with the payment terms set forth herein shall constitute a material breach of this Agreement and shall entitle the Engineer, at its option, to terminate the Agreement. Any material breach of this Agreement by the Client shall, at the Engineer's option and in its sole discretion, constitute a breach of and default under any and/or all other agreements between the Client and Engineer.

Confidentiality. The Engineer agrees to keep confidential and not to disclose to any person or entity, other than the Engineer's employees, sub-consultants and the general contractor and subcontractors, if appropriate, any data and information not previously known to and generated by the Engineer or furnished to the Engineer and marked CONFIDENTIAL by the Client. These provisions shall not apply to information in whatever form that comes into the public domain, nor shall it restrict the Engineer from giving notices required by law or complying with an order to provide information or data when such order is issued by a court, administrative agency or other authority with proper jurisdiction, or if it is reasonably necessary for the Engineer to defend itself from any suit or claim.

~~The Client agrees that the technical methods, techniques and pricing information contained in any proposal submitted by the Engineer pertaining to this project or in this Agreement or any addendum thereto, are to be considered confidential and proprietary, and shall not be released or otherwise made available to any third party without the express written consent of the Engineer.~~

Consequential Damages. Notwithstanding any other provision of the Agreement, neither party shall be liable to the other for any consequential damages incurred due to the fault of the other party, regardless of the nature of the fault or whether it was committed by the Client or the Engineer, their employees, agents, sub-consultants or subcontractors. Consequential damages include, but are not limited to, loss of use and lost profit.

Non-Contingency. The Client acknowledges and agrees that the payment for services rendered and expenses incurred by the Engineer pursuant to this Agreement is not subject to any contingency unless the same is expressly set forth in this Agreement. Payments to the Engineer shall not be withheld, postponed or made contingent on the financing, construction, completion or success of the project or upon receipt by the Client of offsetting reimbursement or credit from other parties causing Additional Services or expenses. No withholdings, deductions or offsets shall be made from the Engineer's compensation for any reason.

Opinions of Cost.

(a) Since the Engineer has no control over the cost of labor, materials, equipment or services furnished by others, or over methods of determining prices, or over competitive bidding or market conditions, any and all opinions as to costs rendered hereunder, including but not limited to opinions as to the costs of construction and materials, are estimates only and shall be made on the basis of its experience and qualifications and represent its best judgment as an experienced and qualified professional engineer, familiar with the construction industry; but the Engineer cannot and does not guarantee that proposals, bids or actual costs will not vary from opinions of probable cost prepared by it and the Engineer shall have no liability whatsoever if the actual cost differs from the Engineers estimate. If at any time the Client wishes greater assurance as to the amount of any cost, Client shall employ an independent cost estimator to make such determination. Engineering services required to bring costs within any limitation established by the Client will be paid for as additional services hereunder by the Client.

Termination. The obligation to provide further services under this Agreement may be terminated by either party upon seven (7) days' written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party. In the event of any termination, the Engineer shall provide a final statement of charges due and will be paid for all services rendered to the date of termination, all expenses subject to reimbursement hereunder, and other reasonable expenses incurred by the Engineer as a result of such termination. In the event the Engineer's compensation under this Agreement is a fixed fee, upon such termination the amount payable to the Engineer for services rendered will be determined using a proportional amount of the total fee based on a ratio of the amount of the work done, as reasonably determined by the Engineer, to the total amount of work which was to have been performed, less prior partial payments, if any, which have been made.

Reuse of Documents. All documents, including but not limited to drawings and specifications, prepared by the Engineer pursuant to this Agreement are related exclusively to the services described herein. They are not intended or represented to be suitable for reuse by the Client or others on extensions of this project or on any other project. Any reuse without written verification or adaptation by the Engineer for specific purposes intended will be at the Client's sole risk and without liability or legal exposure to the Engineer. The Client releases the Engineer harmless from all claims that the Client may have against the Engineer and arising out of any unauthorized reuse.

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Limitation of Liability. In performing its professional services hereunder, the Engineer will use that degree of care and skill ordinarily exercised, under similar circumstances, by reputable members of its profession practicing in the same or similar locality. No other warranty, express or implied, is made or intended by the Engineer's undertaking herein or its performance of services hereunder. THE CLIENT UNDERSTANDS AND AGREES THAT THE ENGINEER HAS NOT MADE AND IS NOT MAKING ANY PROMISE, WARRANTY OR REPRESENTATION EXCEPT THE WARRANTIES EXPRESSLY MADE HEREIN, AND THE ENGINEER EXPRESSLY DISCLAIMS ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER IMPLIED WARRANTIES. Under no circumstances shall the Engineer be liable for extra costs or other consequences due to changed conditions or for costs related to the failure of the contractor or material men to install work in accordance with the plans and specifications. The Engineer shall not be liable for ~~errors in judgment or~~ for any loss or damage, which occurs for any reason beyond the control of the Engineer. ~~No action may be instituted hereunder more than one year after the cause of action accrued or should have been discovered by reasonable diligence.~~ The provisions of this paragraph shall survive the termination of this Agreement.

Controlling Law. This Agreement is to be governed by the law of the State of North Carolina. ~~The parties agree that any suit or action related to this Agreement shall be instituted and prosecuted in the courts of the County of Wake, State of North Carolina, and each party waives any right or defense relating to such jurisdiction or venue.~~

Binding Effect. This Agreement shall bind, and the benefits thereof shall inure to the respective parties hereto, their legal representatives, executors, administrators, successors and permitted assigns.

Merger; Amendment. This Agreement constitutes the entire agreement between the Engineer and the Client with respect to its subject matter, and all negotiations and oral understandings between the parties are merged herein. This Agreement can be supplemented and/or amended only by a written document executed by both the Engineer and the Client.

Ownership Of Instruments Of Service. All reports, plans, specifications, field data, notes and other documents, including all documents on electronic media, prepared by the Engineer as instruments of service shall become the property of the Owner. The Owner shall retain all common law, statutory and other reserved rights, including the copyright thereto. If the Owner uses any reports, plans, specification, field data, notes or other documents ("documents") for any project other than the specific project for which the documents were intended, then Owner waives any claims for damages related to these other projects.

Photographs. Photographs of any completed project embodying the services of the Engineer provided hereunder may be made by the Engineer and shall be considered as its property, and may be used by it for publication.

Assignment. Neither party to this Agreement shall transfer, sublet or assign any rights under or interest in this Agreement, including but not limited to fees that are due or fees that may be due, without the prior written consent of the other party.

Archiving of Project Documentation. Engineer shall maintain copies of printed project documentation for a period of three years from substantial completion of Engineer's services. Engineer shall maintain copies of all electronic media related to the project for a period of one year from substantial completion of Engineer's services. Requests for reproduction of project documentation after these periods have expired will be considered additional services and will be invoiced at the Engineer's prevailing hourly rates at the time of the request, plus expenses.

Betterment. If, due to the Engineer's error, any required item or component of the project is omitted from the Engineer's construction documents, the Engineer shall not be responsible for paying the cost to add such item or component to the extent that such item or component would have been otherwise necessary to the project or otherwise adds value or betterment to the project. In no event will the Engineer be responsible for any cost or expense that provides betterment, upgrade or enhancement of the project.

Electronic Files. Because data stored on electronic media can deteriorate undetected or be modified without the Engineer's knowledge, the Client agrees that it will accept responsibility for the completeness, correctness, or readability of any electronic media delivered to the Client after an acceptance period of 30 days after delivery of the electronic files, and that upon the expiration of this acceptance period, Client will release, indemnify and save harmless the Engineer from any and all claims, losses, costs, damages, awards or judgments arising from use of the electronic media files or output generated from them. The Engineer agrees that it is responsible only for the printed and sealed drawings and documents, and if there is a conflict between these printed documents and the electronic media, the sealed documents will govern. Engineer makes no warranties, express or implied, under this agreement or otherwise, in connection with the Engineer's delivery of electronic files.

Certifications, Guarantees and Warranties. The Engineer shall not be required to sign any documents, no matter by whom they may be requested, that would result in the Engineer's having to certify, guarantee or warrant the existence of conditions which the Engineer cannot ascertain. The Client also agrees that it has no right to make the resolution of any dispute with the Engineer or the payment of any amounts due to the Engineer in any way contingent upon the Engineer's signing any such certification.

Corporate Protection. It is intended by the parties to this Agreement that the Engineer's services in connection with the project shall not subject the Engineer's individual employees, officers or directors to any personal legal exposure for the risks associated with this project. Therefore, and notwithstanding anything to the contrary contained herein, the Client agrees that as the Client's sole and exclusive remedy, any claim, demand or suit shall be directed and/or asserted only against the Engineer, a North Carolina corporation, and not against any of the Engineer's employees, shareholders, officers or directors.

Job-Site Safety. Neither the professional activities of the Engineer, nor the presence of the Engineer or its employees and sub-consultants at a construction site, shall relieve the General Contractor and any other entity of their obligations, duties and responsibilities including, but not limited to, construction means, methods, sequence, techniques or procedures necessary for performing, superintending or coordinating all portions of the Work of construction in accordance with the contract documents and any health or safety precautions required by any regulatory

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agencies. The Engineer and its personnel have no authority to exercise any control over any construction contractor or other entity or their employees in connection with their work or any health or safety precautions. The Client agrees that the General Contractor is solely responsible for job-site safety, and warrants that this intent shall be made evident in the Client's agreement with the General Contractor. ~~The Client also agrees that the Client, the Engineer and the Engineer's consultants shall be indemnified and shall be made additional insured under the General Contractor's general liability insurance policy.~~ The Client, upon written request of the Engineer, agrees to use its best efforts to add the Engineer as an additional insured on the contractor's general liability and auto liability policies.

Scope of Services. Services not set forth as Basic Services or Additional Services and listed in this Agreement are excluded from the scope of the Engineer's services and the Engineer assumes no responsibility to perform such services.

Severability And Survival. Any provision of this Agreement later held to be unenforceable for any reason shall be deemed void, and all remaining provisions shall continue in full force and effect. All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating responsibility or liability between the Client and the Engineer shall survive the completion of the services hereunder and the termination of this Agreement.

Shop Drawing Review. If included in the scope of services to be provided, the Engineer shall review and approve Contractor submittals, such as shop drawings, product data, samples and other data, as required by the Engineer, but only for the limited purpose of checking for conformance with the design concept and the information expressed in the contract documents. This review shall not include review of the accuracy or completeness of details, such as quantities, dimensions, weights or gauges, fabrication processes, construction means or methods, coordination of the work with other trades or construction safety precautions, all of which are the sole responsibility of the Contractor. The Engineer's review shall be conducted with reasonable promptness while allowing sufficient time in the Engineer's judgment to permit adequate review. Review of a specific item shall not indicate that the Engineer has reviewed the entire assembly of which the item is a component. The Engineer shall not be responsible for any deviations from the contract documents not brought to the attention of the Engineer in writing by the Contractor and approved by the Engineer. The Engineer shall not be required to review partial submissions or those for which submissions of correlated items have not been received.

Specification Of Materials. The Client understands and agrees that products or building materials, which are permissible under current building codes or ordinances may, at some future date, be banned or limited in use in the construction industry because of presently unknown hazardous characteristics. The Client agrees that if the Client directs the Engineer to specify any product or material, after the Engineer has informed the Client that such product or material may not be suitable or may embody characteristics that are suspected of causing or may cause the product or material to be considered a hazardous substance in the future, the Client waives all claims as a result thereof against the Engineer. ~~The Client further agrees that if any product or material specified for this project by the Engineer shall, at any future date be suspected or discovered to be a health or safety hazard, the Client hereby releases the Engineer from any and all~~

~~liabilities and waives all claims against the Engineer relating thereto.~~

Standard Of Care. Services provided by the Engineer under this Agreement will be performed in a manner consistent with that degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances in the same geographic area.

Suspension Of Services. If the project is suspended for more than thirty (30) calendar days in the aggregate, the Engineer shall be compensated for services performed and charges incurred prior to such suspension and, upon resumption of services, the Engineer shall be entitled to an equitable adjustment in fees to accommodate the resulting demobilization and re-mobilization costs. In addition, there shall be an equitable adjustment in the project schedule based on the delay caused by the suspension. If the project is suspended for more than ninety (90) calendar days in the aggregate, the Engineer may, at its option, terminate this Agreement upon giving notice in writing to the Client.

Unauthorized Changes To Documents. In the event the Client consents to, allows, authorizes or approves of changes to any plans, specifications, construction documents or electronic media, and these changes are not approved in writing by the Engineer, the Client recognizes that such changes and the results thereof are not the responsibility of the Engineer. Therefore, the Client releases the Engineer from any liability arising from the construction, use or result of such changes. ~~In addition, the Client agrees, to the fullest extent permitted by law, to indemnify and hold the Engineer harmless from any damage, liability or cost (including reasonable attorneys' fees and costs of defense) arising from such changes.~~

Compensation for Additional Services. The undertaking of the Engineer to perform professional services under this Agreement extends only to those services specifically described herein. If upon the request of the Client, the Engineer agrees to perform additional services hereunder, the Client and the Engineer shall negotiate and agree upon an additional fee to be paid to the Engineer for completion of the agreed upon Additional Services. The Engineer will be under no obligation to begin or complete requested Additional Services until the additional fee has been negotiated and agreed upon in writing by the Client and the Engineer.

Hourly Billing Rates. All services to be billed on an hourly basis under this agreement will be billed using the Engineer's prevailing billing rate schedule at the time services are provided. If a specific rate schedule is to be used for this Agreement, it shall expire no later than one year from the date of this Agreement and will be replaced with the prevailing rate schedule in effect at that time.

Priority Over Form Agreements. The parties agree that the provisions of this Agreement shall control and govern over any Work Orders, Purchase Orders or other documents, which the Client may issue to Engineer in regard to the project(s) which is (are) the subject of this Agreement. The Client may issue such documents to Engineer for its convenience for accounting or other purposes, but any such Orders will not alter the terms of this Agreement, regardless of any contrary language appearing therein.

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Paragraph Headings. The paragraph headings contained in this Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement.

Third Parties. Nothing in this Agreement shall be construed as giving any person, firm, corporation or other entity other than the parties to this Agreement and their respective successors and permitted assigns, any right, remedy or claim under or in respect of this Agreement or any of its provisions.

Default. The Client shall be in default under this Agreement if (i) it fails to pay in full any invoice from the Engineer on the due date or fails to make any other payment due to the Engineer under this Agreement, (ii) it fails to observe or perform any other term, condition or covenant under this Agreement, (iii) it breaches any warranty or representation made under this Agreement, (iv) it dissolves, terminates or liquidates its business, or its business fails or its legal existence is terminated or suspended, (v) any voluntary or involuntary bankruptcy, reorganization, insolvency, receivership, or other similar proceeding is commenced by or against the Client, or (vi) it becomes insolvent, makes an assignment for the benefit of creditors, or conveys substantially all of its assets.

Design Without Construction Phase Services. If the services to be provided by Engineer hereunder do not include construction observation and/or construction administration services, or if such services are included in Engineers contracted services and Client later decides to perform these services itself or decides to retain other consultants or individuals to perform these services, Engineer assumes no responsibility for interpretations of the Engineer's services or for any construction observation, construction administration and/or supervision performed by Client or other parties and Client waives any and all claims against Engineer for any losses, claims, costs or damages of any kind whatsoever that may be in any way connected thereto.

~~In addition Client agrees, to the fullest extent permitted by law, to indemnify and hold Engineer harmless from any loss, claim, damage or cost, including reasonable attorneys' fees and costs of defense, arising or resulting from the performance of construction observation, construction administration and/or supervision by Client, its employees, agents or consultants, and including any and all claims arising from the modification or adjustment of, or any clarifications or interpretations of, the Engineer's Work by others.~~

~~Unless, in the Engineer's sole opinion, appropriate levels of construction observation and construction administration services are contracted for and performed by Engineer, Engineer will not be responsible to provide any engineering or other certifications related to the construction or installation of any improvements.~~

Reliance on Data Provided by Others. Engineer shall be entitled to reasonably rely on the accuracy of information provided to it by Client or any of Client's other consultants or sub-consultants. Engineer shall not be responsible to extensively review the information provided to insure the accuracy thereof. Client agrees to not hold Engineer responsible for errors or omissions in Engineer's work that are directly attributable to errors or incorrect data provided to Engineer by Client or Client's other consultants. Client further acknowledges that any redesign or corrective efforts required by Engineer resulting from incorrect information provided by Client or Client's other consultants will be paid for by the Client as additional services.

Credit and Financial Obligations. Prior to commencement of the work, Engineer may require that Client provide reasonable credit information and other documentation to confirm that the Client has made financial arrangements to fulfill the Client's payment obligations under this Agreement. Engineer may also require such information at any time during the performance of Engineer's services should the Client fail to make payments per this Agreement, a change in the scope materially changes the contract sum, or Engineer identifies in writing a reasonable concern regarding the Client's ability to make payment when payment is due. The Client may be required to furnish this information prior to further commencement or continuation of services by Engineer and Engineer shall not be responsible for the cost of any delay occurring as a result of such a request.

Markup on Expenses. Unless specified otherwise in our proposal, all sub consultant costs and other project related costs incurred by Engineer will be billed with a 15% markup. Company vehicle mileage and internal reproduction costs will be billed at the Engineer's prevailing rate for those items. Personal vehicle mileage costs incurred on the project by employees of Engineer will be billed at the prevailing IRS mileage rate in effect at the time of travel.

SUE Technical Standards. Quality Level A information obtained by direct exposure of the existing utilities can greatly increase the level of confidence with respect to the location of underground utilities at a particular jobsite. Utility exposure (Quality Level A) permits three-dimensional measurements to be taken on utilities for accurate location at each test hole. The overall level of confidence with respect to the location of site utilities can be raised by increasing the number of test holes examined; however, Engineer provides no guarantee of the location of utilities on the site other than at the locations where test holes have been established.

Quality Level B services include the horizontal, above ground detection, marking and mapping of underground utilities. Geophysical prospecting methods are used to indicate the presence and surface position of buried utilities. Utilities are identified and marked in the field in order to be surveyed and mapped. Quality Level B information should not be used for construction purposes, or where exact horizontal and vertical measurements are required.

The accuracy of Quality Level B designating information and depth of cover readings obtained by utilizing Geophysical and Ground Penetrating Radar equipment and techniques are subject to field and soil conditions beyond our control. Engineer will make reasonable efforts to provide comprehensive and correct positional utility marks to the limits obtainable by the instrumentation used and the existing ground conditions; however, Engineer provides no guarantee that all existing utilities on a particular site will be properly located using these methods.

Utilizing Engineer's SUE services does not relieve any party from their obligation to contact the utility damage prevention system before digging begins. Utility marks placed on the ground by Engineer are not to be used for construction purposes.

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INSURANCE. Engineer shall take out and maintain during the life of this Contract the following insurance:

- a. Statutory Workers Compensation insurance;
- b. Comprehensive General Liability insurance in an amount of \$1,000,000.00 for each occurrence and \$2,000,000.00 aggregate;
- c. Automobile Insurance in an amount of \$1,000,000.00

Client shall be named as an additional insured on the Comprehensive General Liability and Automobile insurance policies. Prior to commencing work, Engineer shall provide evidence that the required insurance is in place. Each policy shall provide that Client shall receive not less than thirty days prior written notice of any cancellation, non-renewal or reduction of coverage of any of the policies.

AGENDA ITEM

To: CHAIRMAN RIVENBARK AND BOARD MEMBERS

From: TIM H. HOLLOMAN, EXECUTIVE DIRECTOR

Date: February 14, 2022

Re: 10-Mile Parallel Raw Water Main Preliminary Cost Estimates

Reviewed and Approved as to form: MATTHEW A. NICHOLS, AUTHORITY ATTORNEY

Background: The Lower Cape Fear Water & Sewer Authority (Authority) is evaluating the feasibility of paralleling the 10-mile, 48-inch raw water main that supplies Pender County, CFPWA, and several industries on US 421. The route of the existing pipeline begins at the 3-million-gallon ground reservoir located near the Brunswick County Northwest Water Plant and traverses north and east through Brunswick, Pender and New Hanover Counties to US Highway 421. The main then runs southward along US 421 and terminates at the CFPWA meter vault adjacent to the Stepan facility (formerly Invista).

Action Requested: For information purposes only



McKIM & CREED

TECHNICAL MEMORANDUM

TO: Tim Holloman, Executive Director
Lower Cape Fear Water & Sewer Authority

FROM: Tony Boahn, PE, McKim & Creed

DATE: February 2, 2022

RE: 10-Mile Parallel Raw Water Main Preliminary Cost Estimates

M&C#: 01675-0062 (20J)

I. Introduction & Background

The Lower Cape Fear Water & Sewer Authority (Authority) is evaluating the feasibility of paralleling the 10-mile, 48-inch raw water main that supplies Pender County, CFPWA, and several industries on US 421. The route of the existing pipeline begins at the 3 million gallon ground reservoir located near the Brunswick County Northwest Water Plant and traverses north and east through Brunswick, Pender and New Hanover Counties to US Highway 421. The main then runs southward along US 421 and terminates at the CFPWA meter vault adjacent to the Stepan facility (formerly Invista).

The purpose of this Technical Memorandum is to provide budgetary costs for project feasibility. It is noted that the costs provided herein are not based on detailed design or evaluations and should be used for planning purposes only. Costs are presented in current dollars and do not consider inflation or other future factors that may impact the actual project costs.

II. Opinion of Probable Costs

For the purposes of this document, the following criteria has been established:

- 1) Pipe material is based on welded steel, which is identical to the ongoing 54-inch parallel raw water main project.
- 2) Installation under the Cape Fear River will be made by horizontal directional drill
- 3) Opinions of cost have been provided for a parallel 48-inch and a smaller diameter parallel 36-inch. Further evaluation will be required to determine the final pipe diameter; however, current demand projections indicate that a parallel 36-inch may be suitable to serve customers and reduce overall project costs.

Tables 1 and 2 below provide the opinion of probable project cost for each noted pipe diameter.

Option 1 – Opinion of Probable Project Cost for 48-Inch Parallel Raw Water Main

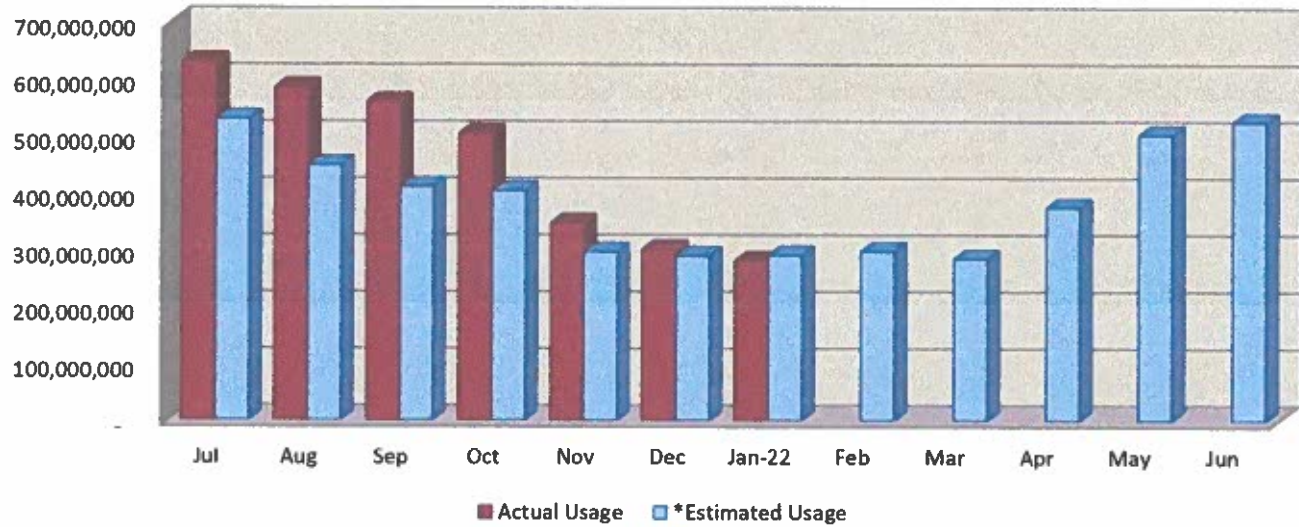
Item	Quantity	Unit	Unit Cost	Total Cost
Mobilization	1	LS	\$750,000	\$750,000
Construction Surveying and Staking	1	LS	\$150,000	\$150,000
48" Welded Steel Pipe	51,800	LF	\$550	\$28,490,000
48" HPDE Directional Drill (Cape Fear River)	1,200	LF	\$2,000	\$2,400,000
Bore and Jack Mt. Misery Rd	1	LS	\$350,000	\$350,000
Bore and Jack US 421	1	LS	\$500,000	\$500,000
Bore and Jack RR Xing	1	LS	\$350,000	\$350,000
Air Release Valves in Vault	10	EA	\$46,000	\$460,000
48" Gate Valves	20	EA	\$65,000	\$1,300,000
Corrosion Control System	1	LS	\$400,000	\$400,000
Record Drawing Survey	1	LS	\$50,000	\$50,000
Stabilization Stone	40,000	LF	\$11	\$440,000
Blow-Off Assembly	4	EA	\$18,000	\$72,000
Pig Launcher & Retriever	1	LS	\$90,000	\$90,000
Raw Water Main Interconnections	4	EA	\$125,000	\$500,000
Right of Way Preparation	1	LS	\$1,500,000	\$1,500,000
Restoration	1	EA	\$1,200,000	\$1,200,000
Erosion Control	1	LS	\$750,000	\$750,000
Easement Acquisition	1	LS	\$500,000	\$500,000
			Subtotal	\$40,252,000
			Technical Fees (10%)	\$4,025,200
			Contingency (25%)	\$10,063,000
			Total	\$54,340,200

Option 2 – Opinion of Probable Project Cost for 36-Inch Parallel Raw Water Main

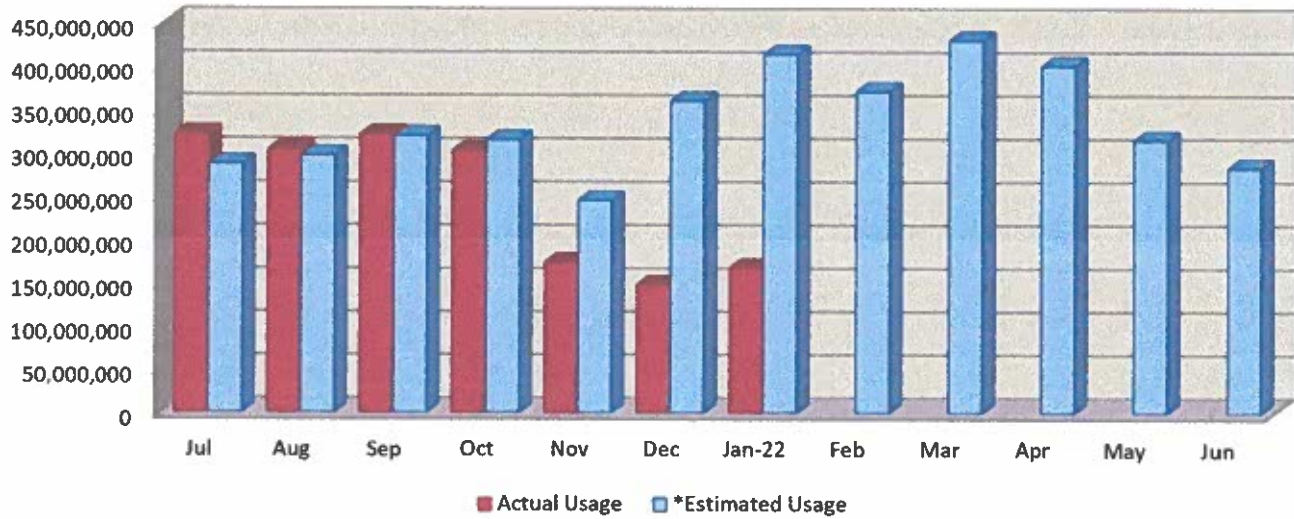
Item	Quantity	Unit	Unit Cost	Total Cost
Mobilization	1	LS	\$750,000	\$750,000
Construction Surveying and Staking	1	LS	\$150,000	\$150,000
36" Welded Steel Pipe	51,800	LF	\$475	\$24,605,000
36" HPDE or FPVC Directional Drill (Cape Fear River)	1,200	LF	\$1,400	\$1,680,000
Bore and Jack Mt. Misery Rd	1	LS	\$325,000	\$325,000
Bore and Jack US 421	1	LS	\$450,000	\$450,000
Bore and Jack RR Xing	1	LS	\$325,000	\$325,000
Air Release Valves in Vault	10	EA	\$46,000	\$460,000
36" Gate Valves	20	EA	\$45,000	\$900,000
Corrosion Control System	1	LS	\$400,000	\$400,000
Record Drawing Survey	1	LS	\$50,000	\$50,000
Stabilization Stone	40,000	LF	\$11	\$440,000
Blow-Off Assembly	4	EA	\$18,000	\$72,000
Pig Launcher & Retriever	1	LS	\$75,000	\$75,000
Raw Water Main Interconnections	4	EA	\$100,000	\$400,000
Right of Way Preparation	1	LS	\$1,500,000	\$1,500,000
Restoration	1	EA	\$1,200,000	\$1,200,000
Erosion Control	1	LS	\$750,000	\$750,000
Easement Acquisition	1	LS	\$500,000	\$500,000
			Subtotal	\$35,032,000
			Technical Fees (10%)	\$3,503,200
			Contingency (25%)	\$8,758,000
			Total	\$47,293,200

END OF MEMORANDUM

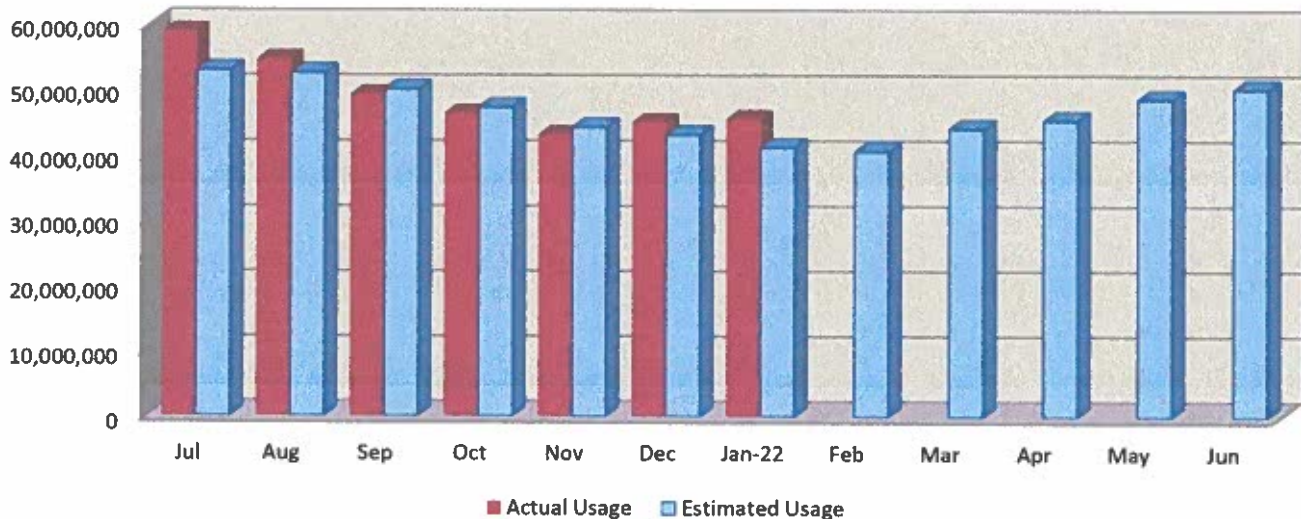
Brunswick County Water Usage FY 21-22



CFPUA Water Usage FY 21-22



Pender County Water Usage FY 21-22



OPERATING FUND BUDGET PERFORMANCE

Jul-1 through Dec-31

Income	Approved Annual Budget	Jul 1- Dec 31	Jul 1- Dec 31	Jul 1- Dec 31	Budget As of 12/31/2021
		Kings Bluff	Bladen Bluffs	OF BUDGET	
3000-01 - OPERATING REVENUE					
3001-01 - 01 Bruns County Public Utility	1,491,553	968,076		968,076	65%
3002-01 - 01 CFPUA	1,296,405	519,628		519,628	40%
3003-01 - 01 Pender County	179,822	98,269		98,269	55%
3004-01 - 01 HWY 421 - Invista	40,000	44,634		44,634	112%
3005-01 - 01 Praxair, Inc	4,314	1,107		1,107	26%
3006-01 - 01 Bladen Bluffs Revenue	3,194,127		2,179,908	2,179,908	68%
Bladen Admin Reimb	94,302		63,501	63,501	67%
3007-01 - Sales Tax Refund Revenue	70,000		55,833	55,833	80%
Total 3000-01 - OPERATING REVENUE	6,370,523	1,631,714	2,299,242	3,930,956	62%
3100-00 - OF NONOPERATING REVENUE					
3120-00 - Revenue-Other					
Interest & Investment Revenue	2,000	228		228	11%
FEMA Reimbursement	0	0		0	0%
Refunds / Insurance Proceeds/ Other	0	600		600	0%
3156-00 - Rental Income	0	8,007		8,007	
3900-01 R&R Fund Appropriated	0	0		0	0%
2900-00 Fund Balance	0	0		0	0%
Total 3100-00 - OF NONOPERATING REVENUE	2,000	8,835	0	8,835	442%
Total Income	6,372,523	1,640,549	2,299,242	3,939,791	62%
Expense					
4000-01 - ADMINISTRATION EXPENDITURES					
4001-01 - Salary - gross	168,610	57,909	25,292	83,200	49%
4010-01 - Per Diem= mileage+per diem pay	62,500	17,019	9,393	26,411	42%
4012-01 - Vehicle Allowance	5,200	1,820	780	2,600	50%
4070-02 - Phone Allowance	520	182	78	260	50%
4015-01 - Payroll Taxes	17,967	5,752	2,699	8,451	47%
4029-01 - Retirement Employer's Part	18,379	6,508	2,757	9,265	50%
4035-01 - 401K Employer PD Contribution	4,758	1,665	714	2,379	50%
4036-01 - Payroll Processing Exp	2,900	1,056		1,056	36%
4038-01 - Insurance Group	40,910	11,642	5,439	17,081	42%
4039-01 - Insurance, Property	87,000	74,226	13,050	87,279	100%
4048-00 Professional Services General	15,000	0	0	0	0%
4048-01 - Attorney	27,900	10,559		10,559	38%
4048-02 - Auditor	9,000	3,400	2,800	6,200	69%
4048-03 - Engineer	50,000	10,766	0	10,766	22%
4049-01 Information Technology	13,800	5,830	0	5,830	42%
4055-01 - Office Maint/Repair	22,000	6,133		6,133	28%
4058-01 - Office Utilities	3,000	994		994	33%
4059-01 - Office Expense	26,300	7,454		7,454	28%
4062-01 - Office Equipment	10,000	5,575		5,575	56%
4064-01 - Printing & Advertising	2,000	688		688	34%
4065-01 - Telephone and Internet	3,200	1,108		1,108	35%
4070-01 - Travel & Training	19,300	11,562		11,562	60%
4080-01 - Miscellaneous Expenses	23,000	12,225		12,225	53%
Total 4000-01 - ADMINISTRATION EXPENDITURES	633,244	254,074	63,001	317,075	50%
4500-01 - OPERATING EXPENDITURES					
4501-00 - Sales Tax Expense - Other	70,000		57,341	57,341	82%
4510-01 - Bladen Bluffs Expenses	1,889,330		1,129,648	1,129,648	60%
4520-01 - Utilities-Energy Pump Station	775,687	296,229		296,229	38%
4530-01 - Kings Bluff O&M Expenses	453,809	187,381		187,381	41%
4535-01 - Kings Bluff Hurricane Other FEMA		0		0	
4543-01 - Series 2012 Bond Principal (ST)	601,443	0		0	0%
4544-01 - Series 2012 Bond Interest (ST)	11,730	5,864		5,864	50%
4545-01 - Series 2010 Bond Principal (BB)	850,000		850,000	850,000	100%
4546-01 - Series 2010 Bond Interest (BB)	297,500		7,102	7,102	2%
Operating Capital Expense	325,000	250,000		250,000	77%
4998-05- Transfer to R&R- KB R&R Expense	75,000		0	0	0%
2041-01- 421 Relocation NHC Loan Principal	390,000		390,000	390,000	100%
Total 4500-01 - OPERATING EXPENDITURES	5,739,279	489,455	2,434,091	3,173,546	55%
Total Expense	6,372,523	743,529	2,497,092	3,490,621	55%

Executive Director Highlighted Activities:

- Continue working with McKim and Creed to assess the best time and method of seeking Infrastructure and SRF funding for upcoming projects. Also met with CFPUA and others to evaluate the best avenues to proceed within 2022.
- Met with partners on-site to continue planning for the May 20, 2022, dedication.
- Ongoing work with CFPUA and Partners to solicit funding for the next 11-mile section to parallel the existing 48" line leaving the Northwest plant and meeting with various partner delegations to onboard legislative assistance.
- Receiving monthly reports from our IT provider Computer Warriors and accessing equipment capabilities
- Attended NCCCMA conference
- Work with partners to suggest an approach to Authority repayment for 48" line leak repair.
- Work with Division of Water Quality to better align Water Supply Plans.