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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 8, 2021

MEETING CALL TO ORDER: Chairman Leonard

INVOCATION

PLEDGE OF ALLEGIANCE

APPROVAL OF CONSENT AGENDA

- C1 - Minutes of Regular Board Meeting January 11, 2021
- C2 - Kings Bluff Monthly Operations and Maintenance Report
- C3 - Bladen Bluffs Monthly Operations and Maintenance Reports
- C4- Budget Amendment #4

NEW BUSINESS

- NB1 - Discussion of Take or Pay Policies

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 31, 2021
- EDR2- Operating Budget Status, Second Quarter Ending December 31, 2020.
- EDR3-Kings Bluff Raw Water Pump Station Local Water Supply Plan for Calendar Year 2020, submitted January 19, 2021.

PUBLIC COMMENT

ADJOURNMENT

The next board meeting of the Lower Cape Fear Water & Sewer Authority is scheduled for Monday, March 8th at 8:00 a.m. in the Authority's office located at 1107 New Pointe Boulevard, Suite 17, Leland, North Carolina

Lower Cape Fear Water & Sewer Authority

1107 New Pointe Blvd, Suite 17
Leland, North Carolina 28451



phn 910.383.1919 fax 910.383.1949
www.lcfwasa.org

Water is Our Business

Frank Williams		X		
	10	3	0	0

NEW BUSINESS**NB1- Appointment of FY 2021-2022 Finance Committee by Chairman Al Leonard**

For information purposes, Chairman Leonard announced the appointed members of the Finance Committee that will work with staff in preparing the recommended budget for consideration by the full Board.

NB 2- Appointment of FY 2021-2022 Personnel Committee by Chairman Al Leonard

Chairman Leonard announced the appointed members of the Personnel Committee. They will review the Executive Director's annual performance and address other matters on an as needed basis.

NB 3- Appointment of FY 2021-2022 Long Range Planning Committee by Chairman Al Leonard

Chairman Leonard announced the appointed members of the Long Range Planning Committee. This Committee will review the Capital Improvement Plan in regards to rate setting and prioritizing projects.

ENGINEER'S COMMENTS

Tony Boahn reported that the inspection at Livingston Creek Aerial Crossing is still postponed due to high waters from rain. The 54-Inch Parallel Raw Water Main project was progressing on schedule, but not a lot of work done in December due to contractors shutting down for a couple of weeks for the holidays. Pipe installation is about 51% complete. The final permit package for the 4th pump was submitted to the NCDEQ-PWS is moving forward on schedule still with the anticipated approval date to be between February and March 2021.

ATTORNEY COMMENTS

None.

EXECUTIVE DIRECTOR REPORT**EDR1 – Comments on Customers' Water Usage and Raw Water Revenue for Fiscal Year to Date Ending December 31, 2020**

Executive Director Holloman reported that during the Month of December 2020, Brunswick and Pender County are slightly below projections, but we are overall only \$1,000 off projections for this time of year.

DIRECTOR'S COMMENTS AND/OR FUTURE AGENDA ITEMS

None

PUBLIC COMMENT

None

ADJOURNMENT

There being no further business, Chairman Leonard adjourned the meeting at 9:55 a.m.

Respectfully Submitted:

Norwood Blanchard, Secretary

C1 - Minutes of Regular Board Meeting December 14th, 2020
C2 - Kings Bluff Monthly Operations and Maintenance Report
C3 - Bladen Bluffs Monthly Operations and Maintenance Reports
C4- Approval of the Authority's 2021 Regular Schedule Meetings Calendar

Motion: Director Williams MOVED; seconded by Director Blanchard, approval of the Consent Agenda Items as presented. Upon roll call vote, the **MOTION CARRIED.**

	<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			
Al Milliken	X			
Charlie Rivenbark	X			
Bill Saffo	X			
Chris Smith	X			
Bill Sue	X			
Frank Williams	X			
	13	0	0	0

OLD BUSINESS

OB1- Consider approving a new raw water rate effective July 1, 2021

Executive Director, Tim Holloman made a final recommendation that the water rate per 1,000 gallons be increased from the current rate of \$0.2717 to \$0.33 effective July 1, 2021. Chairman Leonard opened the floor for discussion as it pertained to the recommendation. Director Williams thanked Executive Director Holloman for having a Capital Improvement discussion. He stated that Brunswick County submitted a counter proposal rate increase of \$0.315, due to multiple projects currently in processes that will decrease the County's revenue as they progress in the near future. Director Norris commented that in his experience as a County Commissioner that he strived to make sure that the County had enough money do to what it needed to do to function, but not a penny more. He recommended that if we went forward with a lower rate that in a year's time we could revisit an additional rate increase. Director Sue recommended keeping the increase as low as possible to meet our obligations. Director Milliken stated that the rate increase of \$0.33 is low, but a start, especially considering that there has not been a rate increase in the last 7 years.

Motion: Director Rivenbark MOVED; seconded by Director Milliken, approval of *the Increase of the Water Rate to \$0.33 Effective July 1, 2021.* Upon roll call vote, the **MOTION CARRIED.**

	<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		
Al Milliken	X			
Charlie Rivenbark	X			
Bill Saffo	X			
Chris Smith	X			
Bill Sue	X			

Lower Cape Fear Water & Sewer Authority
Regular Board Meeting Minutes

January 11, 2021

Chairman Leonard called to order the Authority meeting scheduled on January 11, 2021 at 8:00 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 Norris gave the invocation.

Roll Call by Chairman Leonard:

Present: Norwood Blanchard, Patrick DeVane, Harry Knight, Al Leonard, William Milliken, Jackie Newton, Charlie Rivenbark, and Frank Williams

Present by Internet or Telephone: Wayne Edge, Phil Norris, and Bill Saffo, Chris Smith, William Sue

Absent: none

Staff: Tim H. Holloman, Executive Director; Matthew Nichols, General Counsel; Tony Boahn P.E., McKim & Creed, and Allison Covington, Financial Administration Assistant

Guests Present: Kenny Kee, John Nichols, Glen Walker, Chad McEwen, Anthony Colon, and Carl Vandermeiden.

PLANNING RETREAT

Executive Director, Tim Holloman discussed major accomplishments and milestones that took place in FY 19-20 and FY 20-21. There was a complete change in the staff at LCFWASA that included a new Executive Director, Tim Holloman in April 2020, and a new attorney, Mathew Nichols and a new Financial Administration Assistant, Allison Covington in August 2020. He also mentioned the progress with the ongoing Pipe Installation, Aerial Crossing, and Bore Encasements projects. New audio equipment was installed to improve audio quality for Polycom and Webex for board meetings. A new cash management Policy and an Emergency Water Supply plan have been adopted. The Hwy 421 Relocation Project and the Bladen Bluffs bank restoration project were completed. The Authority has also established a LinkedIn, Twitter, and Facebook information page. The Facebook page also serves as a secondary source to view the monthly Board meetings.

The Executive Director also discussed ongoing issues and concerns at the Authority. The first issue of concern is storage. Tony Boahn spoke on having another tank. He stated that we currently have a concrete tank and recommends considering ground storage as well. Potable water from the Tarheel plant for Gray's Creek is no longer an issue for the Authority. It was determined that PWC is looking for an alternate solution. The lock and dam project remains on hold due to the COVID-19 pandemic. The Pender Commerce Park project is also on hold.

The next discussion pertained to the future needs of the Authority. The establishment of a Long Range Planning Committee to review the CIP and accompanying rate needs was approved and implemented during the December 2020 board meeting. Executive Director Holloman has asked School of Government Financial Specialist, William Rivenbark, to conduct a presentation to the Committee. Executive Director recommended that the Board consider in the near future upgrading the office computer server, email server, phone system, and video components. He also stated there was a need to replace the second Heating and Air unit. It was also brought up in discussion the possibility of expanding to a Sewer Regional Facility. Chairman Milliken and Chairman Williams both agreed that there was no money in expanding into sewer. Executive Director also recommended the Board consider having an additional full-time employee at the Kings Bluff plant. We currently have one full-time and two part-time employees. The need to have someone besides full-time employee, Jack Hogan, is familiar with facility and all its procedures is crucial. This would move towards succession planning for Kings Bluff.

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

APPROVAL OF CONSENT AGENDA

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: 2/1/2021

SUBJECT: Monthly maintenance report for January 2021

Mr. Holloman,

The Maintenance and Operations of the king's bluff facility for the month of January was 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 ran and tested weekly and verified standby ready.

KB personnel completed all locates issued by the 811 system.

KB personnel completed replacement of the coolant radiator on 2012 Ram 3500 A-3.

KB personnel replaced O2 sensors on the exhaust system of the 2012 Ram 3500 that failed.

KB personnel went out on right of way in different area to check progress of Garney construction and right of way.

KB personnel did follow up and inspection for coolant leaks on # 2 EMD generator following replacement of the water pumps.

KB personnel completed PM on actuator valves on the air wash system line that clean the intake screens located at the river.

Contractors:

New Comb completed quarterly PM on # 1 & 3 HVAC units at the VFD building.

Thank You,
Jack Hogan

Smithfield®

To: Tim Holloman - LCFWASA

From: James Kern – Bladen Bluffs SWTP ORC

Date: 2/1/21

Subject: January 2021 Operations

During the month of January, Bladen Bluffs SWTP operated a total of 21 days, treating 46.756 million gallons of water.

We used:

35,175 lbs. of aluminum sulfate (Alum)

8,747 lbs. of sodium hydroxide (Caustic)

1,157 lbs. of sodium hypochlorite (2,323 gallons of 6% Chlorine Bleach)

James Kern
Water Treatment Plant
Supervisor

(910) 862-3114

(910) 862-3146

(719) 761-0026 mobile

jkern@smithfield.com

Smithfield

Good food. Responsibly.®

Bladen Bluffs Surface Water Treatment
Plant

17014 Highway 87 West

Tar Heel, NC 28392

www.smithfieldfoods.com

Monthly Operating Reports (MORs) Summary

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

Year: <u>2021</u>	PWS Name: <u>Bladen Bluffs Water System</u>	PWSID#: <u>NC5009012</u>
Month: <u>January</u>	Facility Name: <u>Bladen Bluff</u>	

Combined Filter Effluent (CFE) Turbidity

Samples exceeding 1 NTU (count): <u>0</u>	Number of samples required: <u>107</u>
Samples exceeding .3 NTU (count): <u>0</u>	Number of samples taken: <u>108</u>
Samples exceeding .3 NTU (pct): <u>0.0%</u>	Highest single turbidity reading NTU: <u>0.136</u>
	Monthly average turbidity NTU: <u>0.054</u>

Individual Filter Effluent (IFE) Turbidity

1) Was each filter <u>continuously</u> monitored for turbidity?	Yes	<u>X</u>	No	
2) Was each filter's monitoring results <u>recorded every 15 minutes</u> ?	Yes	<u>X</u>	No	
3) Was there a failure of the continuous turbidity monitoring equipment?	Yes		No	<u>X</u>
4) Was any individual filter turbidity level > 1.0 NTU in two consecutive measurements ?	Yes		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		No	<u>X</u>
6) Was any individual filter turbidity level > 1.0 NTU in two consecutive measurements in each 3 consecutive months ?	Yes		No	<u>X</u>
7) Was any individual filter turbidity level > 2.0 NTU in two consecutive measurements in 2 consecutive months ?	Yes		No	<u>X</u>

Entry Point Residual Disinfectant Concentration (EPRD)

Disinfectant Used <u>Chlorine</u>	Number of samples required <u>107</u>
Minimum EPRD concentration <u>0.9500</u>	Number of samples taken <u>108</u>

Distribution Residual Disinfectant Concentration

Number of samples under 0.010 mg/L (without any detectable) excluding where HPC is ≤ 500/mL 0

Contact Time (CT) Ratio

Lowest CT ratio reading <u>11.86</u>	Number of CT ratios required <u>21</u>
Number of CT ratios below 1.0 <u>0</u>	Number of CT ratios calculated <u>21</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, 2021 and that records documenting compliance with this rule are maintained on the premises and available for inspection upon request.

NCDENR/DEH PWSS Version: V02.10-00	COMPLETED BY: <u>James Kern</u>	CERTIFICATE GRADE: <u>A - Surface</u> CERTIFICATE NUMBER: <u>120147</u>
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Bladen Bluffs SWTP Maintenance Report

Date: 2/1/2021

ISSUE:

PLAN OF ACTION:

Air on finished water line (from GAC)	Replacing air relief valves on eff. line
Running spare cl2 lines to settled/finished	Getting quote – Carolina Civil Works
Fire system supply change to county water	IN PROGRESS
Chemical Pump PM due	Rescheduled
Settled chlorine line clogged underground	FIXED
River bank eroding	Informed Tom
Sump pump line from vaults to rapid mix broke	FIXED
Sump pump check valve needs replacement	Scheduled repair
Dig ditch to drain properly	IN PROGRESS
Fill in low spots around vales	COMPLETE
ABS issue on truck	FIXED (under warranty)
SCADA issue with effluent valve control	FIXED



**Lower Cape Fear Water & Sewer Authority
Leland, North Carolina**

**BUDGET AMENDMENT #4
Fiscal Year 2020 - 2021**

BE IT ORDAINED by the Board of Directors of the Lower Cape Fear Water & Sewer Authority that the following amendments are made to the FY 2020-2021 Annual Budget Ordinances.

Section 1: To amend the **Operating Fund** the listed appropriation is to be increased as follows:

Operating Fund :

3006-01 Bladen Bluffs Reimbursement for Plant Operations Cost	\$	625,000
		<u>625,000</u>
	<u>\$</u>	<u>625,000</u>

Bladen Bluffs Operational Expenses exceeded budgeted amounts. This account is a pass-through meaning that Lower Cape Fear Water and Sewer Authority invoices Smithfield Foods for all expenses allocated or encumbered. This amendment is necessary to comply with GASB rules and guidelines.

The Revenue for the increased appropriation will be provided as follows:

Operating Fund :

4510-01 Bladen Bluff O and M	\$	625,000
		<u>625,000</u>
	<u>\$</u>	<u>625,000</u>

Section 2: Copies of this Budget Amendment shall be furnished to the Budget Officer for direction in the carrying out of his duties.

Approved as to the availability of funds:

Tim Holloman, Finance Officer

This Budget Amendment adopted this 8th day of February, 2021.

Al Leonard, Chairman

ATTEST:

Norwood Blanchard, Secretary

NEW BUSINESS (NB-1)

**Lower Cape Fear Water & Sewer
Authority**

AGENDA ITEM

To: CHAIRMAN LEONARD AND BOARD MEMBERS

From: TIM H. HOLLOMAN, EXECUTIVE DIRECTOR

Date: 2/8/2021

Re: Take or Pay Policies

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

Background: The Authority has not had these policies, but other utilities have these in place. These types of policies require that customers must pay for a dedicated amount that has been negotiated upon. Availability, cost of providing service, maintenance and other items that require recurring expenditures by a utility must have a consistent flow of revenue.

Action Requested: Discussion and direct staff

AGENDA ITEM

To: CHAIRMAN LEONARD AND BOARD MEMBERS

From: TIM H. HOLLOMAN, EXECUTIVE DIRECTOR

Date: January 11, 2021

Re: Executive Director's Report

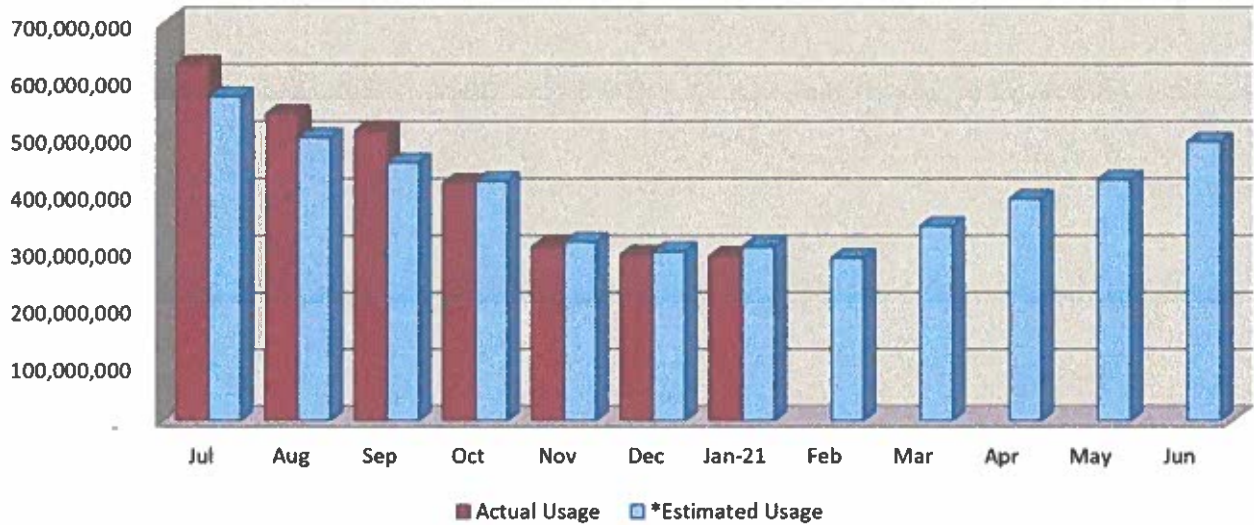
EDR1 - Comments on Customers' Water Usage and Raw Water Revenue for Month Ending January 31, 2021

EDR2 - Operating Budget Status, Second Quarter Ending December 31, 2020.

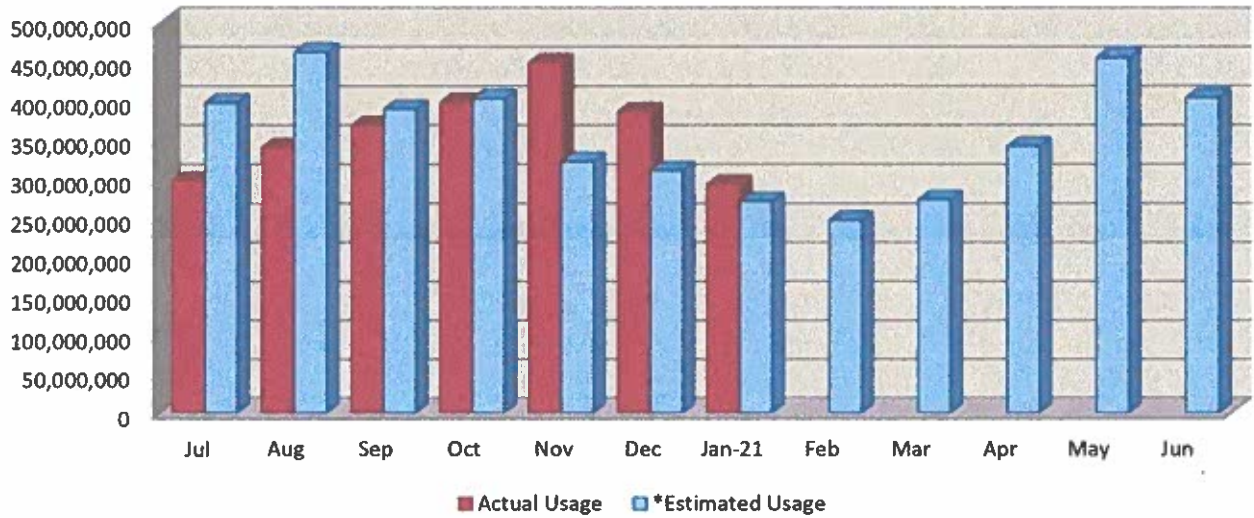
EDR3 – Kings Bluff Raw Water Pump Station Local Water Supply Plan for Calendar Year 2020, submitted January 19, 2021.

Action Requested: For information purposes

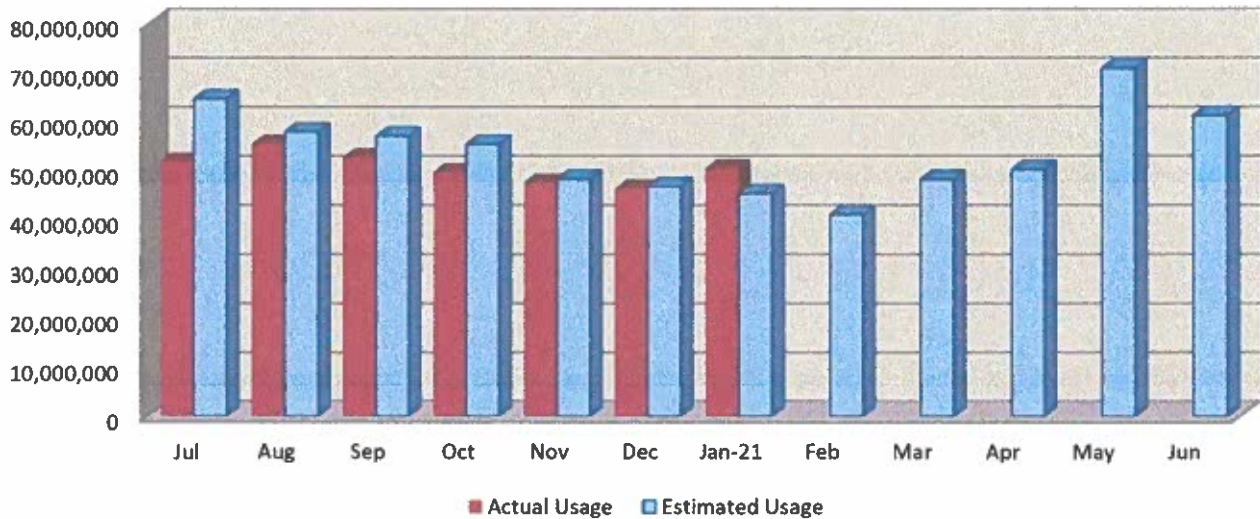
Brunswick County Water Usage FY 20-21



CFPUA Water Usage FY 20-21

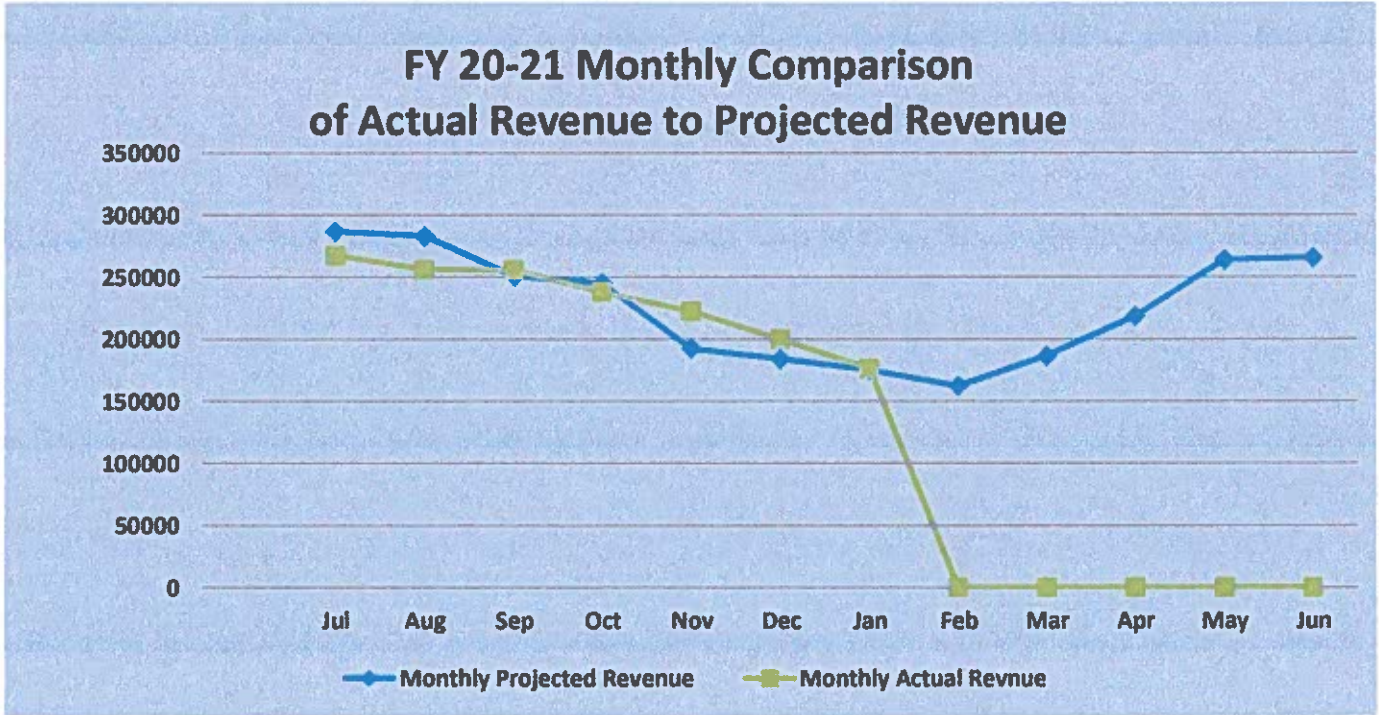


Pender County Water Usage FY 20-21



ACTUAL MONTHLY REVENUE COMPARED TO PROJECTED REVENUE

Month	Monthly Projected Revenue	Monthly Actual Revenue	Over/Under Budget Per Month	Total to Date Over/Under Budget
Jul	\$ 286,455.18	\$ 267,576.45	(\$18,878.73)	(\$938.26)
Aug	\$ 282,861.32	\$ 256,231.05	(\$26,630.28)	
Sep	\$ 250,903.77	\$ 255,983.66	\$5,079.89	
Oct	\$ 245,202.77	\$ 237,938.65	(\$7,264.12)	
Nov	\$ 192,545.63	\$ 222,507.61	\$29,961.98	
Dec	\$ 184,257.82	\$ 200,105.87	\$15,848.04	
Jan	\$ 175,330.64	\$ 176,275.59	\$944.95	
Feb	\$ 162,438.53	\$ -		
Mar	\$ 186,673.77	\$ -		
Apr	\$ 218,693.18	\$ -		
May	\$ 264,178.52	\$ -		
Jun	\$ 265,862.86	\$ -		
	\$ 2,715,404.00	\$ 1,616,618.87		



OPERATING FUND BUDGET PERFORMANCE

Jul-1 through Dec 31

Income	Approved	Amended	Jul 1- Dec 31	Jul 1- Dec 31	Jul 1- Dec 31	Budget
	Annual Budget	Annual Budget	Kings Bluff	Bladen Bluffs	OF BUDGET	As of 12/
3000-01 - OPERATING REVENUE						
3001-01 - 01 Bruns County Public Utility	1,303,072	1,303,072	730,812		730,812	56%
3002-01 - 01 CFPUA	1,162,726	1,162,726	608,402		608,402	52%
3003-01 - 01 Pender County	175,975	175,975	82,631		82,631	47%
3004-01 - 01 HWY 421 - Invista	70,642	70,642	17,630		17,630	25%
3005-01 - 01 Praxair, Inc	2,989	2,989	868		868	29%
3006-01 - 01 Bladen Bluffs Revenue	2,454,409	2,454,409		835,099	835,099	34%
Bladen Admin Reimb	81,972	81,972		45,444	45,444	55%
3007-01 - Sales Tax Refund Revenue	56,000	56,000		67,220	67,220	120%
Total 3000-01 - OPERATING REVENUE	5,307,784	5,307,784	1,440,343	947,763	2,388,107	45%
3100-00 - OF NONOPERATING REVENUE						
3120-00 - Revenue-Other						
Interest & Investment Revenue	25,321	25,321	1,317		1,317	5%
FEMA Reimbursement	25,000	31,000	8,120		8,120	32%
Refunds / Insurance Proceeds/ Other			7,753		7,753	0%
3900-01 R&R Fund Appropriated	178,290	192,190	-		-	0%
2900-00 Fund Balance	0	14,500	-		0	0%
Total 3100-00 - OF NONOPERATING REVENUE	228,611	263,011	17,190	0	17,190	8%
Total Income	5,536,395	5,570,795	1,457,533	947,763	2,405,296	43%
Expense						
4000-01 - ADMINISTRATION EXPENDITURES						
4001-01 - Salary - gross	163,206	163,206	64,502	24,603	89,105	55%
4010-01 - Per Diem= mileage+per diem pay	58,600	58,600	17,288	8,790	26,078	45%
4012-01 - Vehicle Allowance	5,200	5,200	1,400	1,200	2,600	50%
4016-01 - Payroll Taxes	16,002	16,002	6,784	2,410	9,194	57%
4029-01 - Retirement Employer's Part	17,790	17,790	6,644	2,682	9,326	52%
4036-01 - 401K Employer PD Contribution	4,925	4,925	1,719	741	2,460	50%
4036-01 - Payroll Processing Exp	2,900	2,900	1,010		1,010	35%
4038-01 - Insurance Group	36,280	36,280	12,682	5,439	18,121	50%
4039-01 - Insurance, Property	120,000	120,000	34,754	17,298	52,052	43%
4046-01 - Attorney	40,000	40,000	9,305		9,305	23%
4047-01 - Auditor	7,000	7,000	3,200	2,800	6,000	86%
4048-01 - Engineer	50,000	70,500	1,490	5,000	6,490	9%
4049-01 - Information Technology	0	3,000	680		680	23%
4055-01 - Office Maint/Repair/General	14,000	14,000	4,340		4,340	31%
Office Utilities	3,000	5,000	1,335		1,335	27%
Office Expense	9,100	18,000	8,630		8,630	48%
4070-01 - Travel & Training	15,000	15,000	6,889		6,889	46%
4080-01 - Miscellaneous Expenses	17,000	17,000	3,583		3,583	21%
Total 4000-01 - ADMINISTRATION EXPENDITURES	679,983	614,383	186,236	70,963	257,198	44%
4500-01 - OPERATING EXPENDITURES						
4501-00 - Sales Tax Expense - Other	56,000	56,000		32,566	32,566	58%
4510-01 - Bladen Bluffs Expenses	1,257,430	1,257,430		973,908	973,908	77%
4520-01 - Utilities-Energy Pump Station	925,000	925,000	353,184.32		353,184	38%
4530-01 - Kings Bluff O&M Expenses	453,609	453,609	158,165.55		158,166	35%
4536-01 - Kings Bluff Hurricane Other FEMA			-		0	
4543-01 - Series 2012 Bond Principal (ST)	589,940	589,940	-		0	0%
4544-01 - Series 2012 Bond Interest (ST)	23,232	23,232	11,615.99		11,616	50%
4546-01 - Series 2010 Bond Principal (BB)	790,000	790,000		0	0	0%
4548-01 - Series 2010 Bond Interest (BB)	275,000	275,000		11,084	11,084	4%
4998-05- Transfer to R&R- KB R&R Expense	196,201	196,201		0	0	0%
2041-01- 421 Relocation NHC Loan Principal	390,000	390,000		0	0	0%
Total 4500-01 - OPERATING EXPENDITURES	4,956,412	4,956,412	522,966	1,017,558	1,540,524	31%
Total Expense	5,536,395	5,570,795	709,201	1,088,521	1,797,722	32%

The LCFWASA has an interconnection with the CFPWA 24" raw water main.

2. Water Use Information

Service Area

Sub-Basin(s)	% of Service Population	County(s)	% of Service Population
Cape Fear River (02-3)	100 %	Brunswick	80 %
		New Hanover	19 %
		Pender	1 %

What was the year-round population served in 2020? 151,000

Has this system acquired another system since last report? No

Water Use by Type

Type of Use	Metered Connections	Metered Average Use (MGD)	Non-Metered Connections	Non-Metered Estimated Use (MGD)
Residential	0	0.0000	0	0.0000
Commercial	0	0.0000	0	0.0000
Industrial	2	0.2300	0	0.0000
Institutional	0	0.0000	0	0.0000

How much water was used for system processes (backwash, line cleaning, flushing, etc.)? 0.0000 MGD

Water Sales

Purchaser	PWSID	Average Daily Sold (MGD)	Days Used	MGD	Contract Expiration	Recurring	Required to comply with water use restrictions?	Pipe Size(s) (Inches)	Use Type
Brunswick County	04-10-045	13.8500	365	37.0000	2050	Yes	Yes	48,54	Regular
Cape Fear Public Utility Authority	04-65-015	10.4500	365	29.0000	2050	Yes	Yes	48,54	Regular
Pender County	07-71-011	1.5900	365	6.0000	2050	Yes	Yes	48,54	Regular

3. Water Supply Sources

Monthly Withdrawals & Purchases

	Average Daily Use (MGD)	Max Day Use (MGD)		Average Daily Use (MGD)	Max Day Use (MGD)		Average Daily Use (MGD)	Max Day Use (MGD)
Jan	19.7300	24.7600	May	29.1400	38.1500	Sep	31.3300	39.1200
Feb	24.3500	27.4300	Jun	29.5600	37.7400	Oct	28.2100	34.5000
Mar	27.2500	30.8700	Jul	31.4400	39.8500	Nov	27.2600	30.7400
Apr	29.9000	35.1700	Aug	30.3300	36.2200	Dec	23.6400	27.5800



Surface Water Sources

Stream	Reservoir	Average Daily Withdrawal		Maximum Day Withdrawal (MGD)	Available Raw Water Supply		Usable On-Stream Raw Water Supply Storage (MG)
		MGD	Days Used		MGD	* Qualifier	
Cape Fear River	Lock and Dam No. 1	28.1800	365	0.0000	106.0000	F	0.0000

* Qualifier: C=Contract Amount, SY20=20-year Safe Yield, SY50=50-year Safe Yield, F=20% of 7Q10 or other instream flow requirement, CUA=Capacity Use Area Permit

Surface Water Sources (continued)

Stream	Reservoir	Drainage Area (sq mi)	Metered?	Sub-Basin	County	Year Offline	Use Type
Cape Fear River	Lock and Dam No. 1	5,255	Yes	Cape Fear River (02-3)	Bladen		Regular

LCFWASA - Kings Bluff

2020 ▾

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1. System Information

Contact Information

Water System Name:	LCFWASA - Kings Bluff	PWSID:	50-09-013
Mailing Address:	1107 New Pointe Blvd., Suite # 17 Leland, NC 28451	Ownership:	Authority
Contact Person:	Tim Holloman	Title:	Executive Director
Phone:	910-383-1919	Cell/Mobile:	--

Provisional

Distribution System

Line Type	Size Range (Inches)	Estimated % of lines
Other	48	80.00 %
Other	60	20.00 %

What are the estimated total miles of distribution system lines? 24 Miles
 How many feet of distribution lines were replaced during 2020? 0 Feet
 How many feet of new water mains were added during 2020? 0 Feet
 How many meters were replaced in 2020? 0
 How old are the oldest meters in this system? 11 Year(s)
 How many meters for outdoor water use, such as irrigation, are not billed for sewer services? 0
 What is this system's finished water storage capacity? 0.0000 Million Gallons
 Has water pressure been inadequate in any part of the system since last update? *Line breaks that were repaired quickly should not be included.* No

Programs

Does this system have a program to work or flush hydrants? No
 Does this system have a valve exercise program? Yes, Semi-Annually
 Does this system have a cross-connection program? No
 Does this system have a program to replace meters? No
 Does this system have a plumbing retrofit program? No
 Does this system have an active water conservation public education program? No
 Does this system have a leak detection program? Yes

The LCFWASA has meters at each customer and a master meter at the pump station. All of the meters are read daily and the difference in reported flows is recorded daily. Kings Bluff Pump Station Staff uses this information to determine if there are any significant leaks in the system.

Water Conservation

What type of rate structure is used? Flat/Fixed
 How much reclaimed water does this system use? 0.0000 MGD For how many connections? 0
 Does this system have an interconnection with another system capable of providing water in an emergency? Yes

What is this system's off-stream raw water supply storage capacity? 3 Million gallons

Are surface water sources monitored? Yes, Daily

Are you required to maintain minimum flows downstream of its intake or dam? No

Does this system anticipate transferring surface water between river basins? No

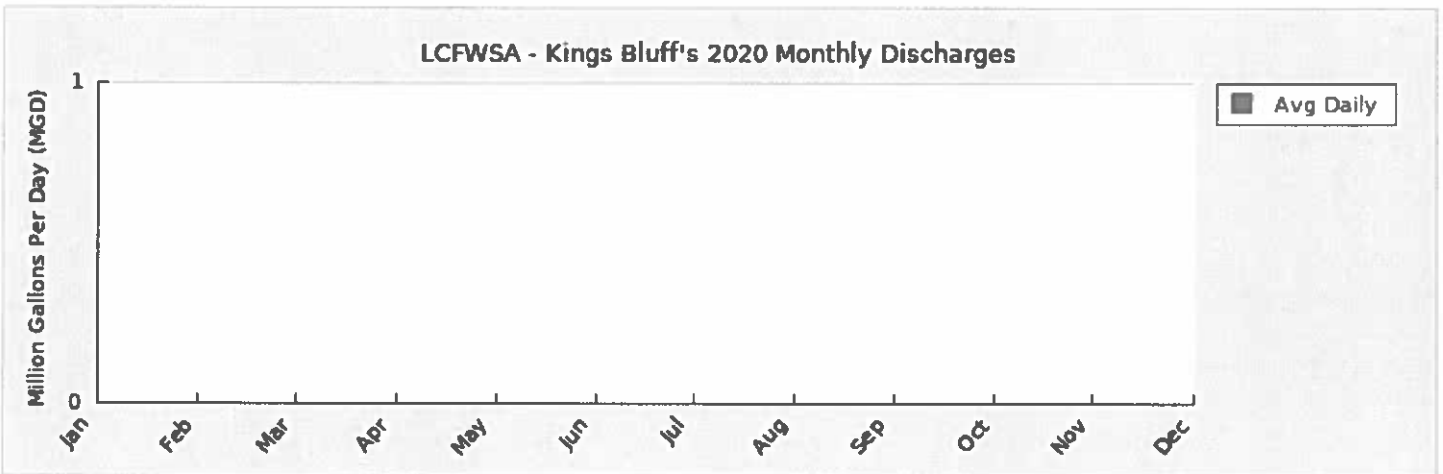
Water Purchases From Other Systems

Seller	PWSID	Average Daily Purchased (MGD)	Days Used	Contract		Required to comply with water use restrictions?	Pipe Size(s) (Inches)	Use Type
				MGD	Expiration			
Cape Fear Public Utility Authority	04-65-015	0.0000	0			No	24	Emergency

4. Wastewater Information

Monthly Discharges

	Average Daily Discharge (MGD)		Average Daily Discharge (MGD)		Average Daily Discharge (MGD)
Jan	0.0000	May	0.0000	Sep	0.0000
Feb	0.0000	Jun	0.0000	Oct	0.0000
Mar	0.0000	Jul	0.0000	Nov	0.0000
Apr	0.0000	Aug	0.0000	Dec	0.0000



How many sewer connections does this system have? 0

How many water service connections with septic systems does this system have? 0

Are there plans to build or expand wastewater treatment facilities in the next 10 years? No

5. Planning

Projections

	2020	2030	2040	2050	2060	2070
Year-Round Population	151,000	0	0	0	0	0
Seasonal Population	0	0	0	0	0	0
Residential	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Commercial	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Industrial	0.2300	0.7500	0.7000	0.7000	0.7000	0.7000
Institutional	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
System Process	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unaccounted-for	2.0537	2.7657	2.5813	2.5813	2.5813	2.5813

Demand v/s Percent of Supply

	2020	2030	2040	2050	2060	2070
Surface Water Supply	106.0000	106.0000	106.0000	106.0000	106.0000	106.0000
Ground Water Supply	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Purchases	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Future Supplies		0.0000	0.0000	0.0000	0.0000	0.0000
Total Available Supply (MGD)	106.0000	106.0000	106.0000	106.0000	106.0000	106.0000
Service Area Demand	2.2837	3.5157	3.2813	3.2813	3.2813	3.2813
Sales	25.8193	72.0000	72.0000	72.0000	72.0000	72.0000
Future Sales		0.0000	0.0000	0.0000	0.0000	0.0000
Total Demand (MGD)	28.1030	75.5157	75.2813	75.2813	75.2813	75.2813
Demand as Percent of Supply	27%	71%	71%	71%	71%	71%



The purpose of the above chart is to show a general indication of how the long-term per capita water demand changes over time. The per capita water demand may actually be different than indicated due to seasonal populations and the accuracy of data submitted. Water systems that have calculated long-term per capita water demand based on a methodology that produces different results may submit their information in the notes field.

Your long-term water demand is 0 gallons per capita per day. What demand management practices do you plan to implement to reduce the per capita water demand (i.e. conduct regular water audits, implement a plumbing retrofit program, employ practices such as rainwater harvesting or reclaimed water)? If these practices are covered elsewhere in your plan, indicate where the practices are discussed here. Not applicable to our system.

Are there other demand management practices you will implement to reduce your future supply needs? We have adopted a Water Emergency Plan.

What supplies other than the ones listed in future supplies are being considered to meet your future supply needs? All of the utilities served by our system have alternate water sources.

How does the water system intend to implement the demand management and supply planning components above? Working with NC DEQ and US Army Corps of Engineers to preserve the water supply pool created by Lock and Dam #1.

Additional Information

Has this system participated in regional water supply or water use planning? No

What major water supply reports or studies were used for planning? Brunswick County and CFPWA have both Studied their future water needs.

Please describe any other needs or issues regarding your water supply sources, any water system deficiencies or needed improvements (storage, treatment, etc.) or your ability to meet present and future water needs. Include both quantity and quality considerations, as well as financial, technical, managerial, permitting, and compliance issues: Working with NC DEQ and US Army Corps of Engineers to preserve the water supply pool created by Lock and Dam No. 1.

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