

AGENDA ITEM

To: CHAIRMAN LEONARD AND BOARD MEMBERS

From: TIM H. HOLLOMAN, EXECUTIVE DIRECTOR

Date: 6/7/2021

Re: Approve new position of Kings Bluff Administrator

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

Background: The Authority has engaged Brunswick County to Operate the Kings Bluff Raw Water Pumping Plant since its inception. With the approval of this position and the hiring of the current lead operator as the Kings Bluff Administrator, the Authority will continue to contract with Brunswick County for plant operations.

There may be some modifications such as asking Brunswick County to provide one full time position and one part time position. Currently Brunswick County provides one full-time and two part time positions. This would allow for succession planning and having two full-time employees familiar with plant and transmission line operation, especially with the additional transmission line coming online in 2022.

Action Requested: Motion to Approve or Disapprove

Lower Cape Fear Water and Sewer Authority
Kings Bluff Raw Water Pumping Station Administrator

Plan and supervise Brunswick County employees, equipment and materials to install, maintain and repair lines, meter vaults, pumping station, and raw water storage; participates in field work. Inspects work during performance and after completion.

Direct and Participate in inspecting raw water pumping and raw water intake; Clean and performs preventive maintenance; collect water samples and perform required testing; ensure rights-of-way and facility grounds are kept clean and trimmed.

Prioritize projects and coordinates the use of available equipment, materials and staff to obtain maximum effectiveness and economy; ensure proper maintenance of assigned equipment.

Plan preventive maintenance programs for all pumping station equipment, meter vaults, raw water storage, and SCADA system and controls. Enforce the appropriate safety procedures and ensures their use and application.

Respond to customer requests, concerns, and issues; perform field review; meets with customers.

Keep records, prepares reports; prepares material and supply requisitions; maintain adequate inventory and appropriate records.

Maintain the Standard Operating Procedures Manual; monitor, develop, and write standard operation procedures when necessary.

This position reports directly to the LCFWASA Executive Director.

AGENDA ITEM

To: CHAIRMAN LEONARD AND BOARD MEMBERS

From: TIM H. HOLLOMAN, EXECUTIVE DIRECTOR

Date: 6/7/2021

Re: Report on Aerial Crossing Structural Assessment

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

Background: In August of 2020, LCFWASA contracted with McKim and Creed, Inc. to provide a structural assessment and review the support assemblies for the existing aerial crossing. Review of these supports would include above and below water line conditions. Intercoastal Marine was the firm chosen by McKim and Creed to perform the underwater evaluations.

Action Requested: Motion to Accept/Approve



243 North Front Street
Wilmington, North Carolina 28401

PH (910) 343-1048
FAX (910) 251-8282

TECHNICAL MEMORANDUM

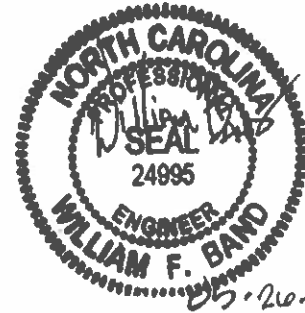
DATE: May 26, 2021

TO: Tim Holloman, Executive Director

FROM: Jess Powell, P.E.

CC: William Band, P.E.

RE: Lower Cape Fear Water & Sewer Authority, Leland, North Carolina
Kings Bluff 48-Inch Raw Water Transmission Main
Aerial Crossing Structural Assessment



Project Background and Purpose

The Lower Cape Fear Water & Sewer Authority (LCFW&SA) owns and operates the Kings Bluff Raw Water Pump Station facility, located upstream of Lock & Dam No. 1 on the Cape Fear River, in Bladen County. The original transmission main from this pump station was constructed in the early 1980's and includes an existing 48" diameter prestressed concrete cylinder pipe aerial crossing over Livingston Creek, approximately 1.45 miles southeast of Riegelwood, North Carolina.

The existing aerial crossing is located downstream of and parallel to the new 54" diameter raw water main currently under construction as part of the Cape Fear Public Utility Authority's "Kings Bluff Raw Water Transmission Main" project. To help facilitate construction of the new aerial crossing for the 54" diameter raw water main, the contractor for this project installed an access road from Neils Eddy Road to Livingston Creek, providing easy access to both aerial crossings.

The existing aerial crossing spans approximately 160 linear feet across Livingston Creek and the existing wetlands make access to the crossing for periodic reviews difficult. In August 2020, LCFW&SA wisely opted to take advantage of the construction access road in place and

contracted with McKim & Creed, Inc. (M&C) to provide a structural assessment and review the support assemblies for the existing aerial crossing. Review of these supports would include above and below water line conditions. Since M&C does not provide the type of services required for these underwater conditions, Intercoastal Marine, LLC, in Castle Hayne, North Carolina provided dive team and equipment for these underwater evaluations.

Record drawings of the existing aerial crossing construction were not available for review prior to M&C's accessing the site for review. From pictures of existing construction in place it was easy to determine the aerial crossing was comprised of (4) support bent assemblies intermittently spaced across the creek. In general, these existing support bents consisted of (4) timber piles embedded in the creek bed and topped with a cast-in-place (c.i.p.) reinforced concrete pile cap. The top surface cradles to the radius of the bottom of the pipe and provides bearing support for the raw water transmission main. Bearing pads were observed between the cradle concrete surface and the outside face of the bottom of the pipe. The (2) interior pipe support bents included timber horizontal and cross bracing assemblies above the water line, while the (2) end support bents did not.

It was initially determined the purpose of the review would utilize visual observations and hand tools to evaluate conditions of the timber piles, timber bracing, concrete pile caps and miscellaneous metals observed.

Review of the timber piles and bracing would include but not be limited to the following:

- Members out of plumb or leaning.
- Members that were rotted or exhibited section loss.
- Members that exhibited splitting or warping.

Review of the concrete pile caps would include but not be limited to the following:

- Vertical and horizontal surfaces out of plumb, uneven or non-level.
- Concrete surface defects including but not limited to cracks, spalls, delaminations or exposed reinforcing bars.

- Random non-destructive testing which would include “ping” sound testing, to locate potential sub-surface voids and abnormalities.

Review of miscellaneous metal components would include but not be limited to the following:

- Components exhibiting rusted and/or delaminated existing metal surfaces.
- Components exhibiting section loss.
- Connection fastener conditions.

Initially it was expected M&C would be able to conduct our site review in the Fall of 2020. Unfortunately, weather conditions resulted in high water elevations that delayed site access until April 13, 2021.

Aerial Crossing Pipe Supports

General Comments

For this memorandum, the (4) bent assembly pipe support structures are designated PS #1 through PS #4, with PS #1 the end bent support located at the southern bank of Livingston Creek and closest to the end construction access road where it intersected the creek (ref. photo nos. 1, 2, 3 & 4).

Since record drawings were not provided by the client, dimensional data was obtained during our site review. Regarding PS #1 to PS #4 note the following:

- The pile caps were approximately 7'-0" x 6'-3" x 4'-0" high with the 7'-0" dimension in the east / west direction.
- Piles were approximately 12" diameter pressure treated timber piles spaced approximately 4'-0" in the east / west direction and approximately 3'-6" in the north / south direction.
- Bracing members were observed at PS #2 and PS #3. Bracing consisted of pressure treated timber horizontal and cross bracing assemblies above and below the water line and varied in size. Above the water line 2x12 and 3x8 sections were observed at PS #2

and PS #3. Bracing was observed to be attached to the outside faces and interior faces of the piles on each of the (4) sides of the pipe support assemblies.

- Height above the water line to the bottom of the PS #1, PS #2, PS #3 & PS #4 concrete pile caps was approximately 5'-9".
- The depth below the water line to the creek bed varied for each of the pipe supports.

Approximate measurements indicated the following:

- 3'-0" @ PS #1
- 10'-3" @ PS #2
- 7'-0" @ PS #3
- 2'-0" @ PS #4
- Pipeline appeared to be constant elevation across the pipe supports and did not appear to deflect vertically or horizontally out of alignment.

Timber Piles

Regarding timber piles, the pile sections appeared to be in good condition with no section loss or rot observed. However minor split lines and surface peeling was observed in piles above the water line and probe depths were observed for many of the piles below the water line. In addition, (4) piles were observed to be out of plumb alignment. For this memorandum, the (4) piles are designated P1 through P4, with the P1 pile in the northwest corner of the pile cap, the P2 pile in the northeast corner, the P3 pile in the southeast corner and the P4 pile in the southwest corner. Note the following:

- Split lines were observed on the south face of the P4 pile at PS #1 approximately 1'-6" below the top of the pile (ref. photo no. 5).
- Peeling was observed on the south face of the P3 pile at PS #2 approximately 1'-6" below the top of the pile (ref. photo no. 6).
- Probe tests above the water line were negligible to extremely minor with measurements ranging from 0" to 1/16" penetration.
- Probe tests below the water line were negligible to minor, although measurements yielded a wider range of variability: Below waterline probe results are indicated in Attachment No. 1 but note the following:

- PS #1: P1, P2 and P3 piles measured approximately 1/4" penetration and the P4 pile 0" penetration.
 - PS #2: P1 pile 0" penetration, the P2 and P3 piles measured approximately 1/4" penetration and the P4 pile approximately 1/8" penetration.
 - PS #3: P1 pile measured approximately 1/4" penetration, the P2 pile measured approximately 1/2" to 3/4" penetration, the P3 pile measured approximately 1/4" to 1/2" penetration and the P4 pile measured approximately 1/4" penetration.
 - PS #4: P1, P3 and P4 piles 0" penetration and the P2 pile measured approximately 1/4" penetration.
- In general, all piles for PS #1 and PS #4 and the P2 and P3 piles for PS #2 and PS #3 appeared to be plumb and did not appear to be exhibiting signs of excessive deflection. The P1 and P4 piles for PS #2 and PS #3 appeared out of plumb and leaning upstream in the west direction (ref. photo no. 7).
 - Evidence of scour was not observed around the piles at the creek bed interface.

Timber Bracing

Regarding timber bracing, the bracing sections appeared to be in good condition with no warping and no major section loss or rot observed. However minor split lines and end of section deterioration (ref. photo nos. x and y) typical of exposed timber framing were observed in braces above the water line. Probe depth measurements above the water line were approximately less than 1/16" to 0" penetrations. Probe depth measurements below the water line indicated approximately 3/8" penetrations. Note the following:

- Bracing connections appear to be stable.
- It is noted the two pipe supports (PS #2 and PS #3) with bracing assemblies were the supports where out of plumb piles were observed. Having no history of previous reviews, it is hard to gage if the piles were installed at the angle observed, or if piles have shifted slightly through years of service. If the latter is true, it appears the bracing deflected with the piles without compromising the integrity of the brace connections.

Concrete Pile Caps

Except for surface staining due to weathering the pile caps appear to be in very good condition.

Note the following:

- Vertical and horizontal lines of the pile cap edges appear to be plumb and level for each of the four pipe supports including PS #2 and PS #3 where out of plumb piles were observed.
- Concrete surfaces appear to be free from cracks, spalling and delamination, although small amount of honeycombing was observed at the southwest corner, and the northeast corner of the PS #2 pile cap (ref. photo nos. 9 and 10).
- Random locations of "ping" sound testing did not appear to indicate sub-surface voids and abnormalities.
- A pair of exposed reinforcing bars were observed in the top surface of the pile caps on the west side of the 48" diameter pipe for PS #1, PS#2 and PS #3. However, these bars appear to have been bent to an inverted "u" shape and embedded in the pile cap at the time of construction, possibly utilized for maintenance access (ref. photo nos. 2 and 3). In addition, they appear to be coated and do not appear to be rusting or causing any adverse conditions at their embedment points.
- The pile caps were constructed to envelop the tops of the timber piles. No gaps or degraded concrete were observed in the joints at the timber / concrete interface (ref. photo no. x).

Miscellaneous Metals

Miscellaneous metals observed included bracing / pile connection rods and hardware. In general, the timber connections included approximate 3/4" diameter galvanized single threaded rods, nuts and ogee washers. The condition of the fasteners was slight to moderate surface rusting (ref. photo no. 10).

Recommendations

The existing aerial crossing has been in service for almost 40 years. In general, the timber piles and bracing, concrete pile caps and fastener connections are in good condition for their age. Although the area may be difficult to access, it is recommended the existing pipe support assemblies be reviewed periodically. Utilizing this review as a baseline for future reviews may be beneficial to LCFW&SA for future planning and maintenance.

Although current conditions of the existing structures do not appear to warrant major concerns, regarding their ability to support the existing transmission main, future monitoring is recommended: This future monitoring should include structural support assemblies in addition to non-structural components of the aerial pipe crossing.

Regarding structural support, note the following:

- M&C recommends setting benchmarks on the top surfaces of the existing concrete pile caps to tie to vertical datum and horizontal alignments. This data should help determine if the out of plumb piles observed, for the (2) interior pipe support structures require reclassification if they are in a continuous deflecting condition that could eventually impair the transmission line.

Regarding non-structural components, note the following:

- M&C recommends reviewing the existing pipe joints and consider replacing existing grout and installing new grout diaphragms for worn joints prior to existing pipe steel rings becoming exposed (ref. photo no. 12).

Regarding future reviews of the aerial crossing, note the following:

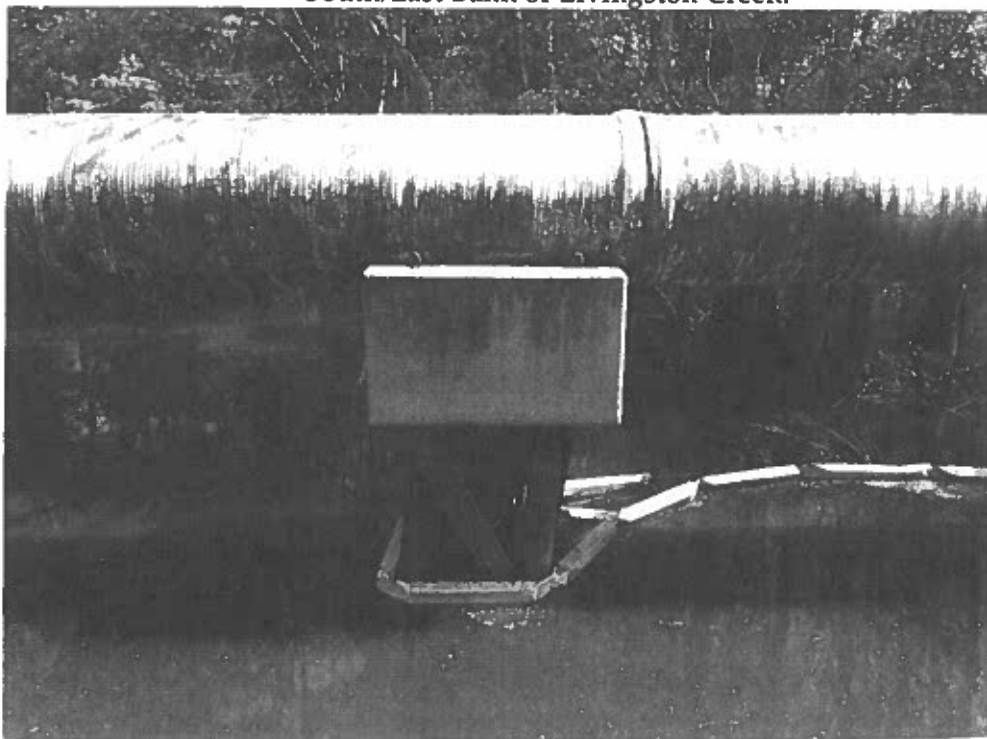
- M&C recommends re-surveying the benchmarks annually.
- M&C recommends conducting future structural assessments every (5) years.

Attachment "A"
Photographs

**Kings Bluff 48-Inch Raw Water Transmission Main
Aerial Crossing Structural Assessment**

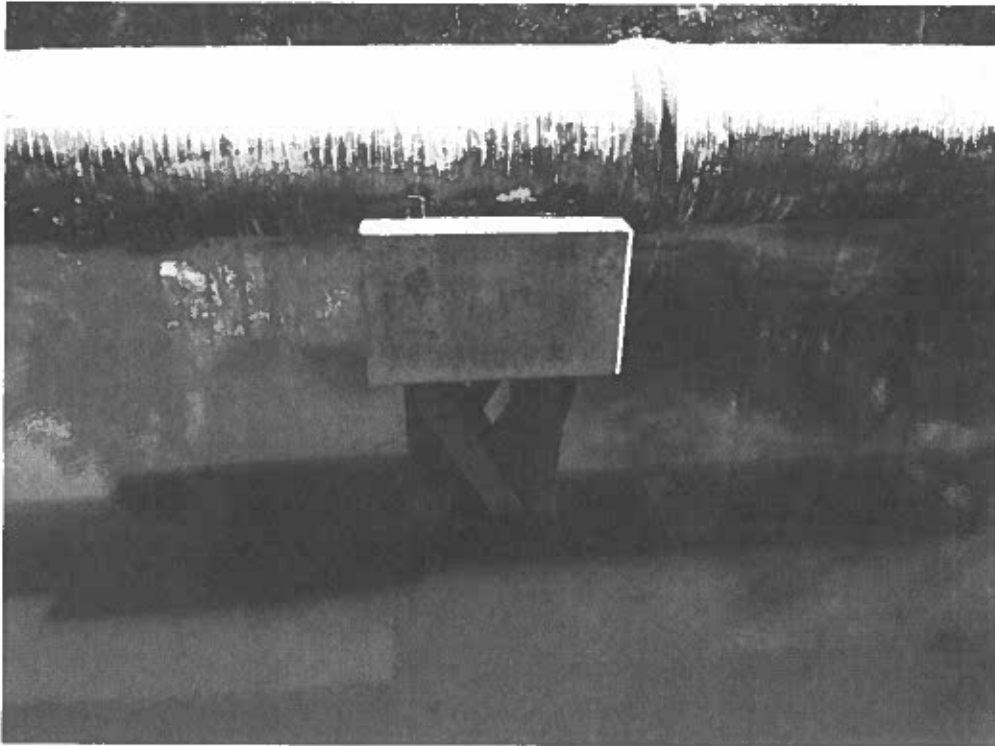


1. View Looking East at Pipe Support #1 & where Access Road Intersects w/ South/East Bank of Livingston Creek.

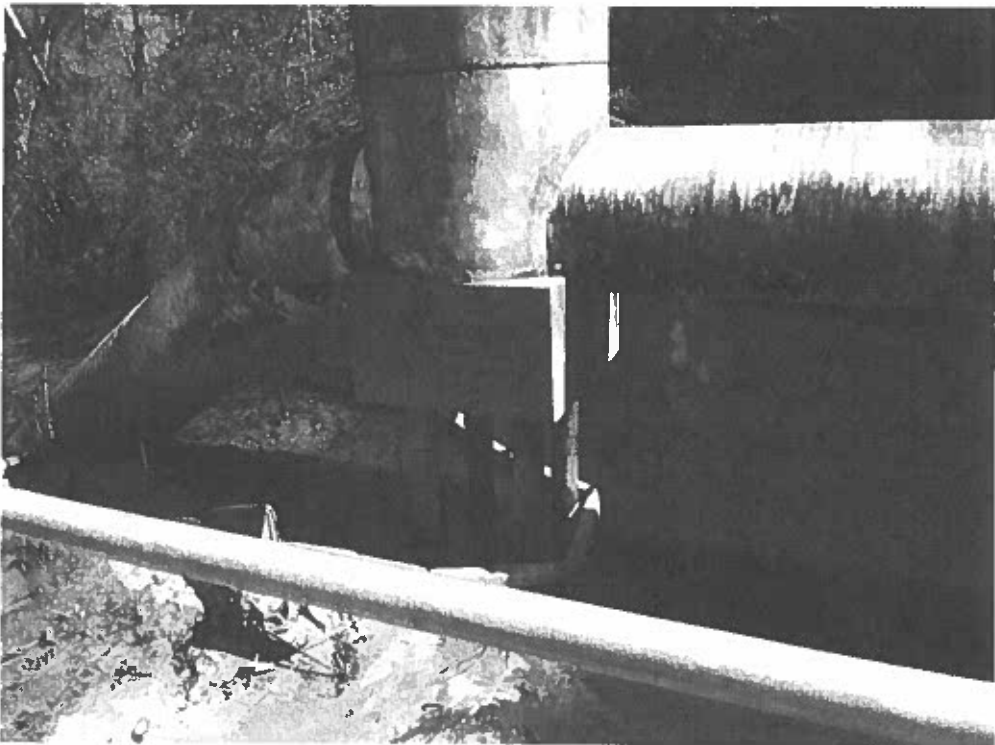


2. View Looking Northeast at Pipe Support #2 Assembly.

**Kings Bluff 48-Inch Raw Water Transmission Main
Aerial Crossing Structural Assessment**



3. View Looking Northeast at Pipe Support #3 Assembly.



4. View Looking North at Pipe Support #4 Assembly & the North / West Bank of Livingston Creek.

**Kings Bluff 48-Inch Raw Water Transmission Main
Aerial Crossing Structural Assessment**

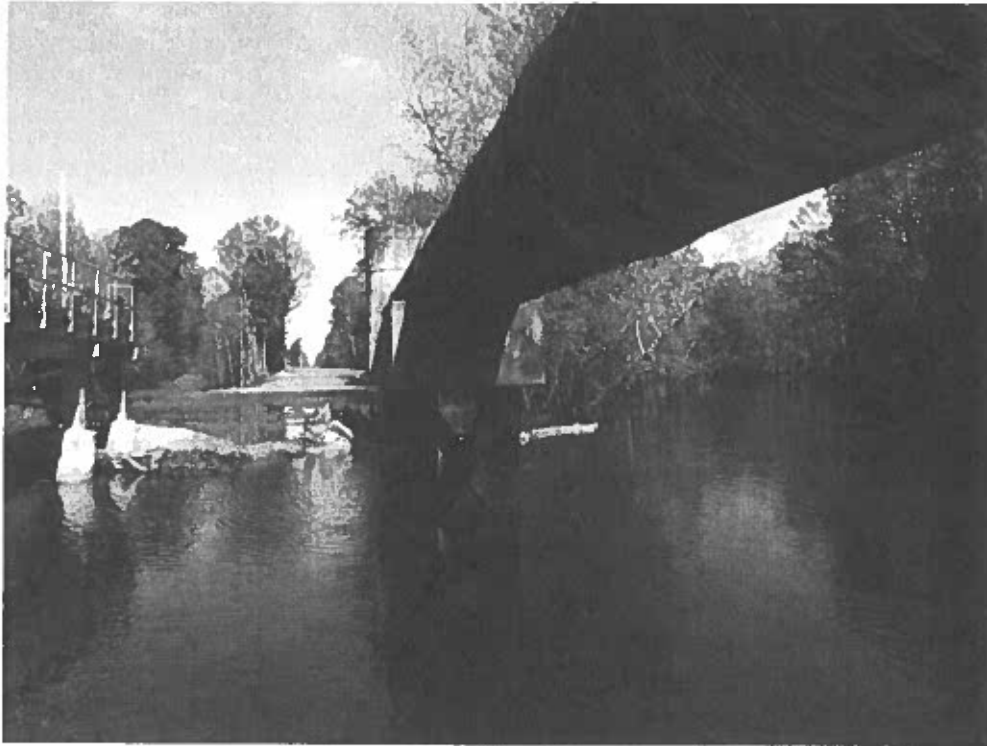


5. View Looking at the Southwest Pile (P4) of Pipe Support #1 where Minor Split Lines in the Pile were Observed on the South Face of the Pile.

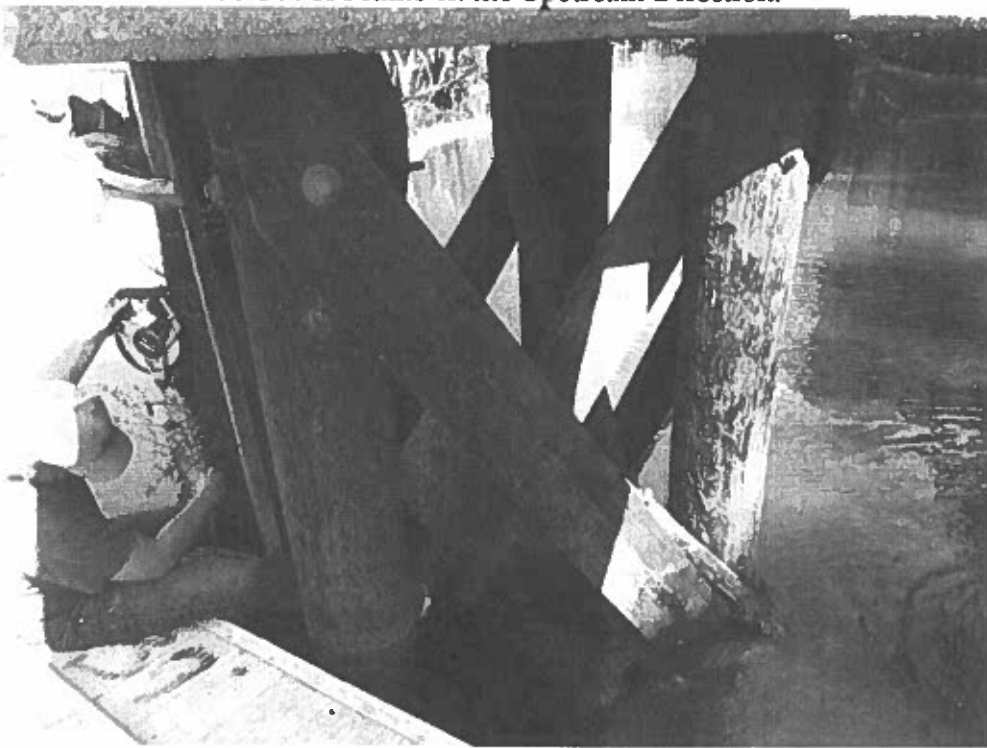


6. Close-Up View of South Face of the Southeast Pile (P3) of Pipe Support #2 where Surface Peeling was Observed.

**Kings Bluff 48-Inch Raw Water Transmission Main
Aerial Crossing Structural Assessment**

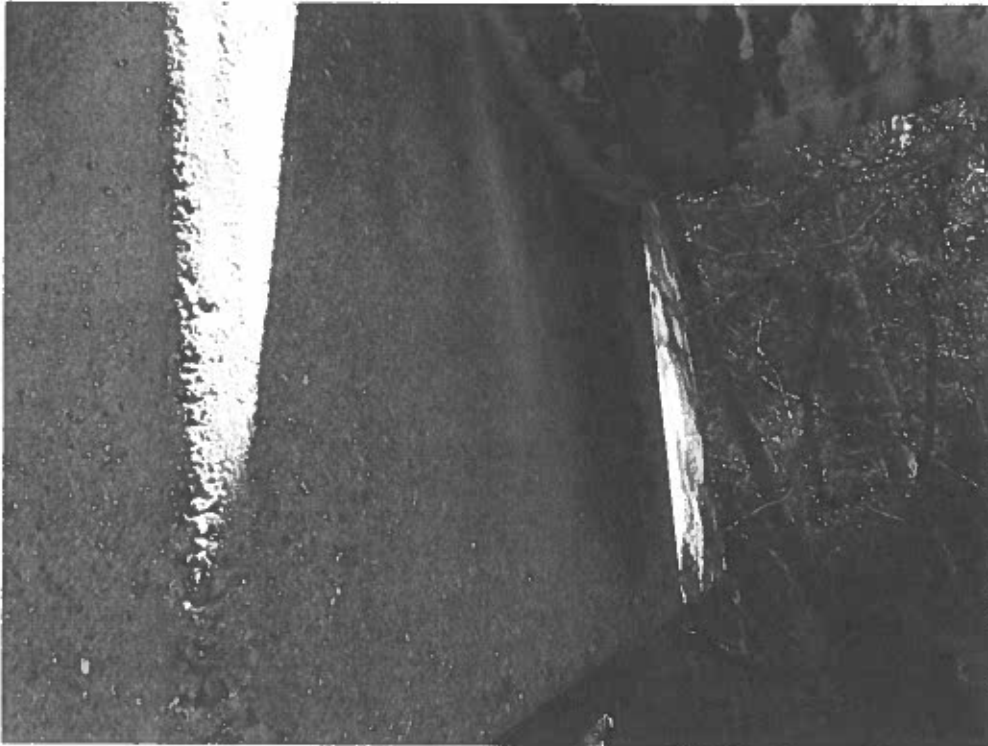


7. View Looking at the Southwest Pile (P3) of Pipe Support #3 that was Observed to be Out of Plumb in the Upstream Direction.

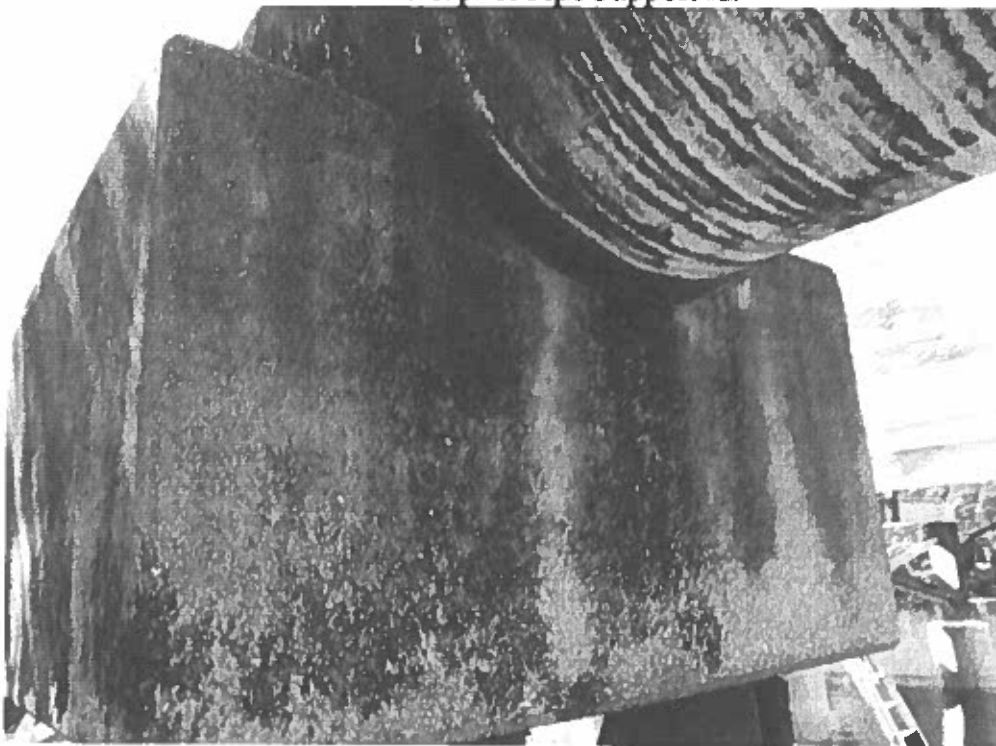


8. View Looking at Pipe Support #3 Cross Bracing with Minor Split Lines in the Timber Section.

**Kings Bluff 48-Inch Raw Water Transmission Main
Aerial Crossing Structural Assessment**



9. View Looking at the Existing Honeycombing at the Southwest Corner of the Pile Cap for Pipe Support #2.



10. View Looking at the Small Area of Existing Honeycombing at the Northeast Corner of the Pile Cap for Pipe Support #3 and Concrete Staining Observed.

**Kings Bluff 48-Inch Raw Water Transmission Main
Aerial Crossing Structural Assessment**



11. Close-Up View of Timber Pile / Bracing Fastener Connection Assemblies & the Surface Rusting Observed.



12. View Looking at the Underside of the Pipe Joint South of Pipe Support #1 & the Exposed and Cracked Grout.

Attachment "B"
Intercoastal Marine, LLC Report



TELEPHONE: (910)675-9791
FAX: (910)675-9796

Intercoastal Marine, LLC

NC GC License #74488
SC GC License #G118963

6101 Diamond Shamrock Road
Castle Hayne, NC 28429
An Equal Opportunity Employer

CAPE FEAR PUBLIC UTILITY AUTHORITY
EXISTING ARIAL CROSSING OF LIVINGSTON CREEK
INSPECTION REPORT

On Tuesday, April 13, 2021 Intercoastal Marine did perform the inspection of the underwater components of the existing arial crossing of Livingston Creek. Please see attached sketch for site layout. The inspection was performed visually with the use of a probe to determine timber condition. At the time of this inspection water levels in some areas and water clarity did not allow for use of video equipment. Each of the four structures were inspected with the timber pile being numbered clockwise. The following is a list of the findings by: Diver Supervisor – James Pennel, Diver – Harley Callahan, Tender – Dawton Callahan

- **Structure #1** - Approximate 3' of water depth
 - Piles #1, #2, & #3 had ¼" of probe penetration
 - Pile #4 No probe penetration
- **Structure #2** - Approximate 10' of water depth
 - Pile #1 No probe penetration
 - Pile #2 ¼" probe penetration
 - Pile #3 ¼" probe penetration
 - Pile #4 1/8" probe penetration
- **Structure #3** - Approximate 7' of water depth
 - Pile #1 ¼" probe penetration
 - Pile #2 Approximate 5' from creek bottom, just under horizontal bracing, 1' of pile had ¼" of probe penetration. The remainder of the pile had ½" probe penetration
 - Pile #3 Approximate 5' from creek bottom, just under horizontal bracing, 1' of pile had ½" of probe penetration. The remainder of the pile had ¼" of probe penetration.
 - Pile #4 ¼" probe penetration
- **Structure #4** - Approximate 2' of water depth
 - Piles #1, #3, & #4 No probe penetration
 - Pile #2 ¼" probe penetration

General Notes for All Structures

- Bottom of creek bed was sandy with multiple cypress knees present
- No signs of scour were present
- All X-bracing and horizontal bracing, had approximate 3/8" probe penetration
- All hardware was galvanized, showing slight surface rust.

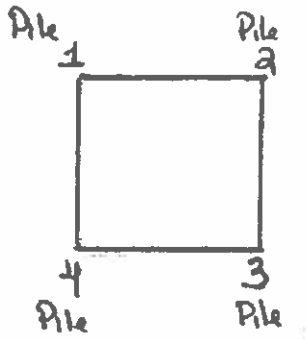
This concludes our inspection. If you need any further information, please feel free to contact me.

SUBMITTED BY:
INTERCOASTAL MARINE, LLC
BILL HOWELL

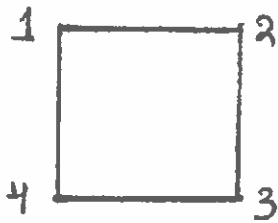
BH/kc

Enc: sketch of site layout

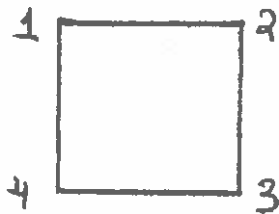
International Paper



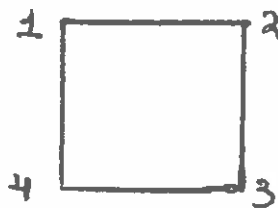
Structure #4



Structure #3



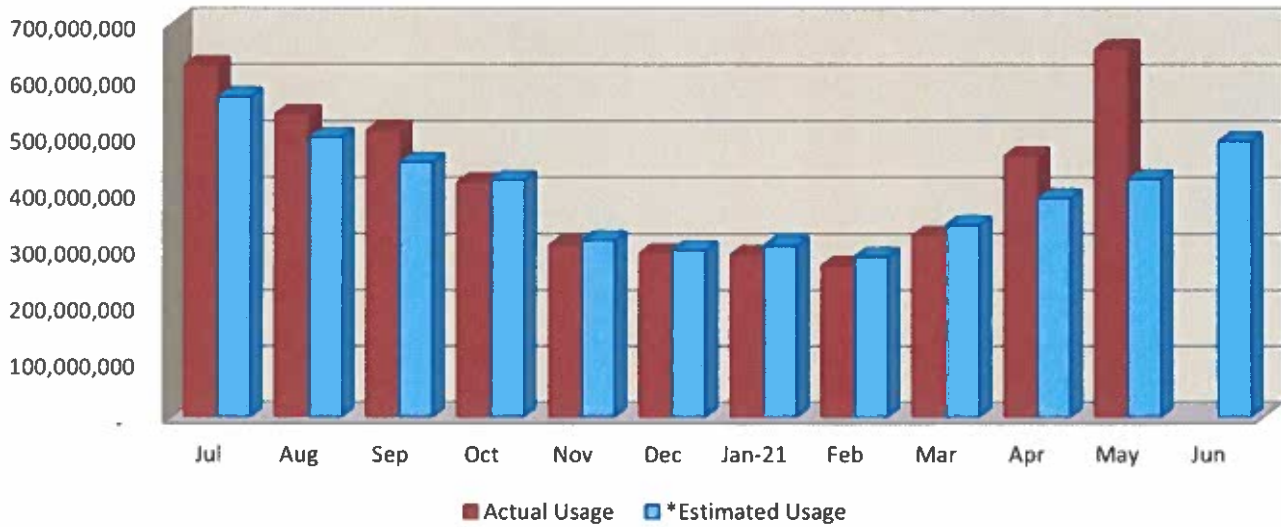
Structure #2



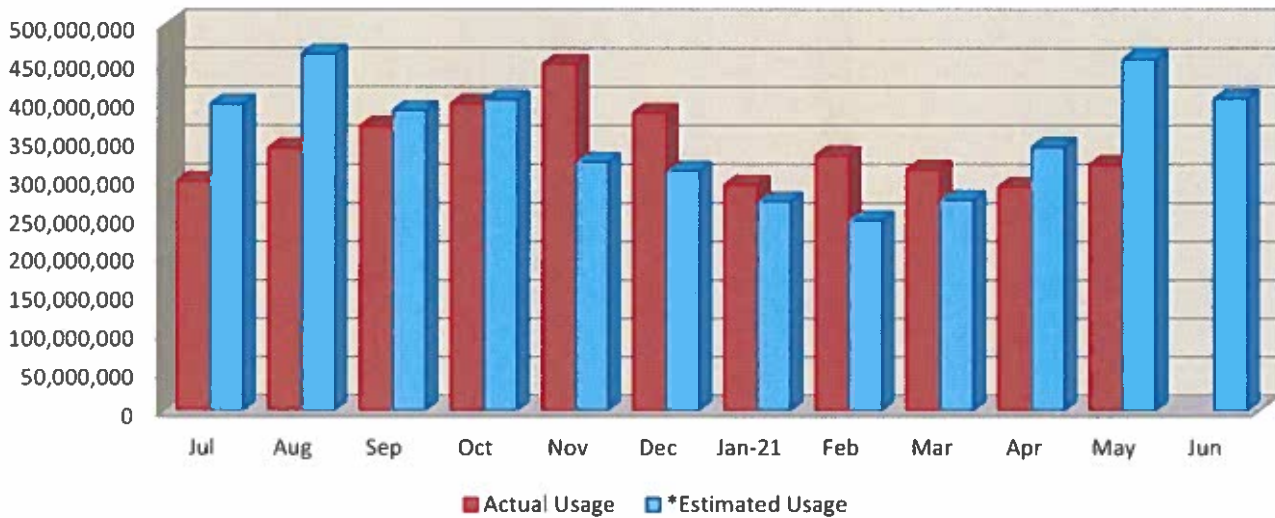
Structure #1

Neil's Eddy Pod

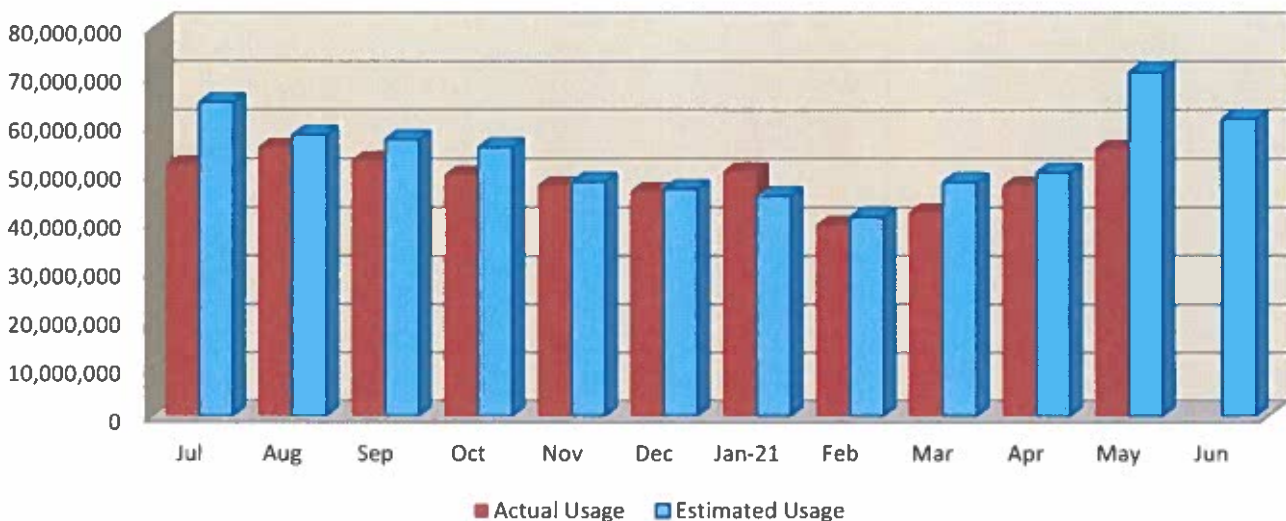
Brunswick County Water Usage FY 20-21



CFPUA Water Usage FY 20-21



Pender County Water Usage FY 20-21



OPERATING FUND BUDGET PERFORMANCE

Jul-1 through Apr 30

Income	Approved	Amended	Jul 1- Apr 30	Jul 1- Apr 30	Jul 1- Apr 30	Budget As of 4/3
	Annual Budget	Annual Budget	Kings Bluff	Bladen Bluffs	OF BUDGET	
3000-01 - OPERATING REVENUE						
3001-01 - 01 Bruns County Public Utility	1,303,072	1,315,872	1,096,975		1,096,975	83%
3002-01 - 01 CFPUA	1,162,726	1,162,726	941,518		941,518	81%
3003-01 - 01 Pender County	175,975	175,975	131,469		131,469	75%
3004-01 - 01 HWY 421 - Invista	70,642	46,642	30,307		30,307	65%
3005-01 - 01 Praxair, Inc	2,989	2,989	1,374		1,374	46%
3006-01 - 01 Bladen Bluffs Revenue	2,454,409	3,079,409		2,035,360.83	2,035,361	66%
Bladen Admin Reimb	81,972	81,972		75,740	75,740	92%
3007-01 - Sales Tax Refund Revenue	56,000	67,200		67,220.17	67,220	100%
Total 3000-01 - OPERATING REVENUE	5,307,784	5,932,784	2,201,641	2,178,321	4,379,962	74%
3100-00 - OF NONOPERATING REVENUE						
3120-00 - Revenue-Other						
Interest & Investment Revenue	25,321	25,321	2,299		2,299	9%
FEMA Reimbursement	25,000	31,000	62,410		62,410	201%
Refunds / Insurance Proceeds/ Other			12,732		12,732	
3170-01 - Non-operating Revenue - OF		60,000	238,584		238,584	398%
3170-04 - Non-operating Revenue - EF		0			0	
3900-01 R&R Fund Appropriated	178,290	192,190				0%
2900-00 Fund Balance	0	14,500	14,500		14,500	100%
Total 3100-00 - OF NONOPERATING REVENUE	228,611	323,011	330,525	0	330,525	102%
Total Income	5,536,395	6,255,795	2,532,166	2,178,321	4,710,487	75%
Expense						
4000-01 - ADMINISTRATION EXPENDITURES						
4001-01 - Salary - gross	163,206	171,506	106,367	41,005	147,372	86%
4010-01 - Per Diem= mileage+per diem pay	58,600	58,600	27,943	14,650	42,593	73%
4012-01 - Vehicle Allowance	5,200	5,200	2,400	2,000	4,400	85%
4015-01 - Payroll Taxes	16,002	19,702	10,953	4,016	14,968	76%
4029-01 - Retirement Employer's Part	17,790	22,290	10,553	4,470	15,023	67%
4036-01 - 401K Employer PD Contribution	4,925	5,475	2,775	1,235	4,010	73%
4038-01 - Payroll Processing Exp	2,900	2,900	2,028		2,028	70%
4038-01 - Insurance Group	36,260	50,460	21,137	9,065	30,202	60%
4039-01 - Insurance, Property	120,000	138,000	74,982	28,830	103,812	75%
4048-01 - Attorney	40,000	40,000	15,538		15,538	39%
4047-01 - Auditor	7,000	8,200	5,400	2,800	8,200	100%
4048-01 - Engineer	50,000	70,500	4,300	5,000	9,300	13%
4049-01 - Information Technology	0	3,000	680		680	23%
4055-01 - Office Maint/Repair/General	14,000	17,000	15,404		15,404	91%
Office Utilities	3,000	5,500	4,282		4,282	78%
Office Expense	9,100	36,000	32,681		32,681	91%
4070-01 - Travel & Training	15,000	16,000	13,591		13,591	85%
4080-01 - Miscellaneous Expenses	17,000	17,000	7,255		7,255	43%
Total 4000-01 - ADMINISTRATION EXPENDITURES	679,983	687,333	358,269	113,071	471,339	69%
4500-01 - OPERATING EXPENDITURES						
4501-00 - Sales Tax Expense - Other	56,000	56,000		45,317	45,317	81%
4510-01 - Bladen Bluffs Expenses	1,257,430	1,882,430		1,466,963	1,466,963	78%
4520-01 - Utilities-Energy Pump Station	925,000	852,050	538,784		538,784	63%
4530-01 - Kings Bluff O&M Expenses	453,609	453,609	264,650		264,650	58%
4535-01 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	11,616		11,616	50%
4545-01 - Series 2010 Bond Principal (BB)	790,000	790,000		790,000	790,000	100%
4546-01 - Series 2010 Bond Interest (BB)	275,000	275,000		21,339	21,339	8%
4998-05- Transfer to R&R- KB R&R Expense	196,201	196,201		-	0	0%
4547-01- 421 Relocation NHC Loan Principal	390,000	390,000		364,333	364,333	93%
4548-01- 421 Relocation NHC Loan Interest				25,667	25,667	
7400-01 - Capital Expense		60,000	60,000		60,000	100%
Total 4500-01 - OPERATING EXPENDITURES	4,956,412	5,566,462	875,051	2,713,619	3,588,670	64%
Total Expense	6,636,395	6,255,795	1,233,319	2,826,690	4,060,009	65%

Executive Director Highlighted Activities:

- Letters sent requesting opposition to portions of HB 640 and 687 regarding Inter Basin Transfers
- Sent inquiry to Secretary Dionne Delli-Gatti regarding the Lock and Dam disposition
- Continue working on Authority Comparisons with Bill Rivenbark and the UNC Financial Center-Received 4th, still waiting on the fifth submission.
- Filled the Administrative Assistant Position
- Contacted each partner with monthly update
- Cyber Review with partner utilities started May 25th, 2021

AGENDA
Lower Cape Fear Water & Sewer Authority
1107 New Pointe Boulevard, Suite # 17, Leland, North Carolina
10:15 a.m. – Long Range Planning Committee Meeting
June 7, 2021

MEETING CALL TO ORDER: CHAIRMAN LEONARD

PRESENTATION: IN DEPTH REVIEW AND ANALYSIS OF CURRENT WATER SUPPLY AGREEMENTS

DISCUSSION: DIRECTORS COMMENTS AND QUESTIONS

ACTION/DIRECTION: MORE INFORMATION TO BE PRESENTED IN AUGUST

ADJOURNMENT

AGENDA
Lower Cape Fear Water & Sewer Authority
1107 New Pointe Boulevard, Suite # 17, Leland, North Carolina
8:30 a.m. – Personnel Committee Meeting
June 7, 2021

MEETING CALL TO ORDER: CHAIRMAN LEONARD

PRESENTATION: JOB DESCRIPTION FOR KINGS BLUFF ADMINISTRATOR

DISCUSSION: DIRECTORS COMMENTS AND QUESTIONS

**ACTION/DIRECTION: RECOMMEND TO FULL BOARD FOR CONSIDERATION AT
ITS REGULAR MEETING TO FOLLOW**

ADJOURNMENT

LCFWASA EXISTING WATER SUPPLY AGREEMENTS

Customer	Current Agreement	Term of Agreement
Brunswick County	<ul style="list-style-type: none"> Fourth Amended and Restated Water Supply Agreement dated December 10, 2012 	<p>Forty (40) years from January 1, 1991. Continues in effect beyond initial 40-year term for successive 10-year terms unless terminated by LCFWASA or County by written notice of termination at least one (1) year prior to expiration of initial term or any extended term thereafter.</p>
CFPUA (City of Wilmington)	<ul style="list-style-type: none"> Water Supply Agreement dated January 1, 1991 First Amendment to Water Supply Agreement dated January 15, 2002 Second Amendment to Water Supply Agreement dated April 17, 2007 Corresponding Memorandum of Understanding (MOU) between City and LCFWASA dated August 7, 2007 	<p>Forty (40) years from date of execution of original Agreement. Continues in effect beyond initial 40-year term for successive 10-year terms unless terminated by LCFWASA or City (CFPUA) by written notice of termination at least one year prior to the expiration of initial term or any extended term.</p>
Pender County	<ul style="list-style-type: none"> Water Supply Agreement dated September 1, 2006 First Amendment to Water Supply Agreement dated December 7, 2009 Second Amendment to Water Supply Agreement dated September 10, 2012 	<p>Forty (40) years from date of execution of original Agreement. Continues in effect beyond initial 40-year term for successive 10-year terms unless terminated by LCFWASA or County by written notice of termination at least one (1) year prior to the expiration of initial term or any extended term.</p>
Smithfield Packing Company (SPC)	<ul style="list-style-type: none"> Amended and Restated Treated Water Supply Agreement dated December 18, 2009 	<p>In effect from date of execution until Debt Obligations and any additional Debt Obligations or financing issued or borrowed to pay Project Costs have been paid or provision made for their payment as provided in the Debt Obligation Authorization. Continues in effect beyond initial term until terminated by LCFWASA or SPC. No termination shall become effective until two (2) years after written notice thereof shall have been given to other party.</p>
Strepan Co. (formerly Invista)	<ul style="list-style-type: none"> Water Supply Agreement dated March 11, 2019 	<p>In effect for a period of ten (10) years from date of execution. Automatically renews for subsequent terms of ten (10) years unless terminated as provided for in Agreement. Either party has right to terminate Agreement at any time and for any reason by giving other party two (2) years notice of intent to terminate.</p>
Praxair	<ul style="list-style-type: none"> Water Supply Agreement dated August 1, 1992 	<p>In effect until terminated by Authority or Praxair. No termination shall become effective until two (2) years after written notice is given to other party by certified mail.</p>

DRAFT 5/27/21

LCFWASA – OTHER AGREEMENTS

Customer	Agreement	Term of Agreement – Other Provisions
Brunswick County	<p>Operation and Maintenance Agreement</p> <ul style="list-style-type: none"> • Agreement dated October 10, 1983 • Operation and Maintenance Agreement dated April 6, 2020 • Amendment to Operation and Maintenance Agreement dated September 14, 2020 	<p>(See 4/6/20 Agreement)</p> <p>Agreement shall continue until terminated. Either party may terminate agreement upon two year's written notice to other party. Termination shall occur at expiration of such two year notice period.</p> <p>Added indemnification and insurance provisions to Agreement.</p>
	<p>Interlocal Agreement</p> <ul style="list-style-type: none"> • Interlocal Agreement Regarding Raw Water Pipeline Design, Construction and Ownership dated July 8, 2019 	<p>Design and construction of new raw water transmission main and related infrastructure within existing LCFWASA easement/right-of-way, generally extending 14 miles from LCFWASA Kings Bluff pump station to LCFWASA ground storage tank in Brunswick County (the "System Improvements" or "Project").</p> <p>(Section 3) Brunswick's Capacity Allocation: 52.08% of the total LCFWASA raw water system capacity. Estimated allocation to Brunswick County upon completion of the System Improvements shall be increased by 26 MGD to 50 MGD.</p> <p>(Section 4) CFPUA's Capacity Allocation. 39.58% of the total LCFWASA raw water system capacity. Estimated allocation to CFPUA upon completion of the System Improvements shall be increased by 15 MGD to 38 MGD.</p> <p>(Section 17) Agreement effective upon execution by LCFWASA, CFPUA and Brunswick County; remains in effect until ownership of System Improvements is transferred to LCFWASA.</p>

DRAFT 5/28/21

<p>Brunswick County (continued)</p>	<ul style="list-style-type: none"> Amendment 1 to Interlocal Agreement Regarding Raw Water Pipeline Design, Construction and Ownership dated August 14, 2019 	<p>LCFWASA shall own the System Improvements.</p> <p>Brunswick County and CFPWA shall receive and have perpetual contract rights to the water allocations in Sections 3 and 4 (see above).</p> <p>LCFWASA responsible for securing five additional easements.</p> <p>Section 17 of original agreement deleted and shall be reserved.</p>
	<p>Other</p>	
	<ul style="list-style-type: none"> See Miscellaneous Agreement 	

Customer	Agreement	Term of Agreement – Other Provisions
CFPUA (City of Wilmington)	<p>Agreement related to water delivery</p> <ul style="list-style-type: none"> • Agreement between LCFWASA, City of Wilmington and First Citizens dated July 1, 1995 • Amended and Restated Agreement dated July 1, 2000 	<ul style="list-style-type: none"> • Identifies point of water delivery (easement area) pursuant to Water Supply Agreement. • Establishes parties' respective ownership of equipment. • Increases requirement for water pressure at point of delivery.
	<p>Interlocal Agreement</p> <ul style="list-style-type: none"> • Interlocal Agreement Regarding Raw Water Pipeline Design, Construction and Ownership dated July 8, 2019 	<ul style="list-style-type: none"> • Amends and restates original Agreement to the extent it applies to ownership of equipment. • City agrees to reimburse LCFWASA for 50% of power bills for the facility for each fiscal year.
		<p>Project: Design and construction of new raw water transmission main and related infrastructure within existing LCFWASA easement/right-of-way, generally extending 14 miles from LCFWASA Kings Bluff pump station to LCFWASA ground storage tank in Brunswick County (the "System Improvements" or "Project").</p> <p>(Section 3) Brunswick's Capacity Allocation: 52.08% of the total LCFWASA raw water system capacity. Estimated allocation to Brunswick County upon completion of the System Improvements shall be increased by 26 MGD to 50 MGD.</p> <p>(Section 4) CFPUA's Capacity Allocation: 39.58% of the total LCFWASA raw water system capacity. Estimated allocation to CFPUA upon completion of the System Improvements shall be increased by 15 MGD to 38 MGD.</p>

<p>CFPUA (City of Wilmington) (continued)</p>	<ul style="list-style-type: none"> Amendment 1 to Interlocal Agreement Regarding Raw Water Pipeline Design, Construction and Ownership dated August 14, 2019 	<p>LCFWASA shall own the System Improvements. Brunswick County and CFPUA shall receive and have perpetual contract rights to the water allocations in Sections 3 and 4 (see above). LCFWASA responsible for securing five additional easements. Section 17 of original agreement deleted and shall be reserved.</p>
	<p>Other</p>	
	<ul style="list-style-type: none"> See Miscellaneous Agreement 	

Customer	Agreement	Term of Agreement – Other Provisions
Smithfield Packing Company (SPC)	<p>Ground Lease</p> <ul style="list-style-type: none"> <li data-bbox="451 447 557 892">Ground Lease Agreement between SPC (landlord) and LCFWASA (tenant) dated August 13, 2007 <li data-bbox="557 447 690 892">Amended and Restated Ground Lease Agreement between SPC (landlord) and LCFWASA (tenant) dated July 12, 2010 	<p>(See Amended and Restated Lease Agreement)</p> <p>(Section 6.1) Unless earlier terminated pursuant to provisions of Lease, term of Lease shall commence on Effective Date and end 180 days after termination of the Amended and Restated Treated Water Supply Agreement.</p>
	<p>Operation and Maintenance Agreement</p> <ul style="list-style-type: none"> <li data-bbox="735 447 943 892">Operation and Maintenance Agreement between LCFWASA and SPC (Operator) dated March 1, 2012 	<p><u>Project:</u> Treated water system to provide SPC up to 4 mgd of treated water at SPC's packing plant on US Highway 87 near Tarheel, NC.</p> <p>(Section 4) Compensation.</p> <p>(Section 8) Either party may terminate agreement upon giving 1 year's written notice to other party. Termination shall occur at expiration of such 1 year notice period. [Note: Other provisions related to LCFWASA sale of water from Project to other parties].</p>
	<p>Other</p> <ul style="list-style-type: none"> <li data-bbox="974 447 1291 892">Agreement for Development (Project Development Agreement - PDA) dated October 1, 2006 	<p><u>Project:</u> Up to 30 mgd raw water intake and pumping station on Cape Fear River at Bladen Bluffs (Bladen County) and a 4 mgd water treatment plant, along with 20-million-gallon storage reservoir (subject to additional expansion for Additional Users).</p> <p>(Section 5.2) Upon approval and acceptance of constructions bids for Project, and upon closing of issuance of LCFWASA's debt for purpose of construction of the Project, Agreement shall terminate and shall be succeeded and superseded by the terms of the Treated Water Supply Agreement.</p>

Customer	Agreement	Term of Agreement – Other Provisions
Pender County	(No agreements other than Water Supply Agreement).	
Stepan Co. (formerly Invista)	Other	
	<ul style="list-style-type: none"> See Miscellaneous Agreement 	
Praxair, Inc.	Other	
	<ul style="list-style-type: none"> See Miscellaneous Agreement 	
Miscellaneous Agreement	<ul style="list-style-type: none"> Agreement between LCFWASA, Brunswick County, City of Wilmington, Cape Industries, Takeda, Praxair and First Citizens Bank and Trust Company (Trustee) dated December 2, 1992 	<ul style="list-style-type: none"> LCFWASA payment to Brunswick County. Brunswick County rescinds and releases certain County Benefits. LCFWASA to issue additional revenue bonds. Other customers (City, Cape, Takeda, Praxair) and Trustee consent.