AGENDA

Lower Cape Fear Water & Sewer Authority
1107 New Pointe Boulevard, Suite # 17, Leland, North Carolina
9:00 a.m. – Regular Monthly Board Meeting
June 11, 2018

MEETING CALL TO ORDER: Chairman Sneeden

INVOCATION

PLEDGE OF ALLEGIANCE

APPROVAL OF CONSENT AGENDA

C1 - Minutes of Regular Board Meeting May 14, 2018
C2 - Kings Bluff Monthly Operations and Maintenance Report
C3 - Bladen Bluffs Monthly Operations and Maintenance Report
C4 - Bladen Bluffs Weekly Reports: May 11, 2018 through June 1, 2018
C5 - Budget Amendment #2

OLD BUSINESS

OB1 - Public Hearing and Approval of Fiscal Year 2018-2019 Budget and Budget Ordinance for Funds Appropriations in Specified Amounts

Public Hearing:

- Motion to Open Public Hearing in accordance with North Carolina General Statute Section 159-12 (b)
- Motion to Close Public Hearing

Approval of Fiscal Year 2018-2019 Budget and Budget Ordinance

A. Operating Fund Appropriations for Fiscal Year 2018-2019 in the Amount of $4,855,014.00
B. Enterprise Fund/Capital Project Fund Appropriations for Fiscal Year 2018-2019 in the Amount of $3,354,503.00

OB2 - Intermediate Booster Pump Station Structure Improvements (Tony Boahn, P.E., McKim & Creed)
OB3 - Report on Distinction Between Owner Liability and Customer/Operator Liability as Defined in the Bladen Bluffs Regional Surface Water System Water Supply Agreement (John Wessell, General Counsel)

NEW BUSINESS

NB1 - Resolution Accepting the *Lower Cape Fear Water & Sewer Authority Kings Bluff Regional Raw Water Supply Facilities FY 2017-2018 Annual Inspection Report* (Tony Boahn, P.E., McKim & Creed)

EXECUTIVE DIRECTOR REPORT

EDR1 - Customers' Water Usage Report as of May 31, 2018

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, July 9, 2018 at 9:00 a.m. in the Authority's office located at 1107 New Pointe Boulevard, Suite 17, Leland, North Carolina.

Consent Agenda (CA)	Lower Cape Fear Water & Sewer Authority

AGENDA ITEM

To: CHAIRMAN SNEEDEN AND BOARD MEMBERS

From: DON BETZ, EXECUTIVE DIRECTOR

Date: June 11, 2018

Re: Consent Agenda

Please find enclosed, 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 upon individually, if so desired.

C1 - Minutes of Regular Board Meeting May 14, 2018

C2 - Kings Bluff Monthly Operations and Maintenance Report

C3 - Bladen Bluffs Monthly Operations and Maintenance Report

C4 - Bladen Bluffs Weekly Reports: May 11, 2018 through June 1, 2018

C5 – Budget Amendment #2

Action Requested: Motion to approve/disapprove Consent Agenda

Lower Cape Fear Water & Sewer Authority
Regular Board Meeting Minutes
May 14, 2018

Chairman Sneeden called to order the Authority meeting scheduled on May 14, 2018 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.

Present: Norwood Blanchard, Wayne Edge, Larry Johnson, Al Leonard, William Milliken, Jackie Newton, Larry Sneeden, William Sue; Skip Watkins and Frank Williams

Present Electronically by Telephone: Trent Burroughs, Phil Norris, Charlie Rivenbark and Bill Saffo

Absent: None

Staff: Don Betz, Executive Director; Tony Boahn P.E., McKim & Creed and Amy Scruggs, Administrative Assistant

Guest: Bill Holman, North Carolina State Director, The Conservation Fund; John Nichols, Brunswick County Public Utilities Director; Glenn Walker, Brunswick County Water Resources Manager; Chad McEwen, Pender County Assistant County Manager; John Malone, Cape Fear Public Utility Authority Water Resources Manager and Heidi Cox, NC DENR Assistant Regional Engineering Supervisor, Public Water Supply Section Division of Water Resources

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

APPROVAL OF CONSENT AGENDA

C1 - Minutes of Regular Board Meeting April 9, 2018
C2 - Kings Bluff Monthly Operations and Maintenance Report
C3 - Bladen Bluffs Monthly Operations and Maintenance Report
C4 - Annual Retainer Engineering Services Agreement, McKim & Creed for Fiscal Year 2018-2019 in the Amount of $16,000.00
C5 - Annual Retainer General Counsel Services Wessell & Raney, L.L.P. for Fiscal Year 2018-2019 in the Amount of $15,000.00

Motion: Director Leonard **MOVED**; seconded by Director Newton, approval of the Consent Agenda Items as presented. Upon vote, the **MOTION CARRIED UNAMIMOUSLY.**

As a courtesy to Mr. Bill Holman as a guest speaker, Chairman Sneeden moved the New Business Agenda Item NB1 to follow the Consent Agenda.

NB1 – Presentation by Bill Holman, North Carolina State Director of The Conservation Fund
In his role as the State Director of The Conservation Fund, Mr. Holman

Mr. Holman explained that in his role as the State Director of The Conservation Fund he works with utilities throughout the state regarding water funds which are strategies for watershed protection and source water protection. In March at the public hearing for Pender County's interbasin transfer request, Mr. Holman stated he spoke in favor of the request because it looks appropriate as the best decision for the economy and the environment. It additionally ties the county's future water needs to the Cape Fear River which can help raise the regional awareness of Pender County along with its other Authority partners to invest in source water protection of the river. Mr. Holman gave a presentation addressing the water quantity and quality benefits of water funds. Issues identified as impacting water quantity and quality includes: population growth; land use change which involves stormwater runoff and groundwater recharge; sedimentation; more productive and intensive agriculture and climate change. Several examples of utilities investing in conservation, watershed and water source protection and restoration projects were provided. In alluding to the present concern of GenX and other chemical compounds in the Cape Fear River, Mr. Holman noted this region is fully aware that regulatory policies are important but insufficient in assuring supplies of clean water; therefore, water users should collaborate and invest in protecting their water quality & quantity. Strategies include investing in land conservation and restoration and water protection projects and these projects will only work with collaborative effort by a partnership of such entities as water utilities, electric utilities, landowners, soil and water districts, and the U.S. Army Corps of Engineers. Additionally, the conservation community would be very interested in working with the Authority and its other partners in developing a source water

public comment on the recommended Fiscal Year 2018-2019 Budget prior to the Board taking action on the recommended budget. In response to a question from Director Sue, Executive Director Betz stated it has been about three years since the Authority sought quotes on insurance coverage and new quotes can be sought during the new fiscal year.

NEW BUSINESS

NB2 – U.S. Army Corps of Engineers Information Meeting on the Cape Fear River Above Wilmington, N.C. Disposition Study

Executive Director Betz reported, the U.S. Army Corps of Engineers is considering conducting a disposition study on the Cape Fear River located above the City of Wilmington and an information meeting was held on May 1, 2018 to explain the study and provide an overview of the process. The purpose of the study is to determine the disposition of the three locks and dams along the Cape Fear River. For the past eight to ten years the Corps sought funding for this study and with the recently adopted budget funding is provided. It is anticipated the study will proceed and through the process the Corps will solicit comments on proposed actions as they develop their recommendation for Federal approval by Congress. An internal decision meeting will be scheduled at the end of May to determine if the study proceeds or if the study is terminated and the system remains in caretaker status. Executive Director Betz commented the Corps' ultimate goal is to transfer the responsibility of these locks and dams properties to new owners. In response to a question by Director Milliken, Mr. Boahn commented he did not have specific data; however, it is possible that removal of the dam could result in a drop in water level which would definitely have an impact on the Authority's Kings Bluff Raw Water Pump Station intakes. The intakes are referred to as runner river intakes and are designed to work within a running river.

NB3 - Closed Session in Accordance with N.C.G.S. Sec.143-318.11(6) to Consider Executive Director's Annual Evaluation (Chairman Blanchard)

Chairman Sneeden moved Item NB3 to the end of the agenda.

EXECUTIVE DIRECTOR REPORT

EDR1- Customers' Water Usage Report for Fiscal Year to Date Ending April 30, 2018

Executive Director Betz reviewed the current year comparison of actual to projected water use as of April 30th which is trending above projections.

EDR2 - Rental House Porch Repair

Executive Director Betz was notified by the current tenants that the front porch of the rental house is in need of repair. These areas have been taped off with red "Do Not Enter" tape while repair quotes are being sought. Currently, two estimates have been received indicating an approximate cost of $7,000.00.

Motion: Director Leonard **MOVED**; seconded by Director Sue, approval for the Executive Director to award a repair contract to the lowest, informal bidder in an amount not to exceed $7,000.00. Upon vote, the **MOTION CARRIED UNAMIMOUSLY.**

EDR3 - 45th Annual Meeting of the Cape Fear River Assembly, May 22, 2018

The Cape Fear River Assembly will hold its 45th annual educational conference on May 22nd from 9:00 – 5:00 p.m. at the UNCW Center for Marine Science. Board members interested in attending can contact staff for assistance with registration.

Additional EDR Item

Executive Director Betz reported on old business associated with the Cary/Apex Interbasin Transfer modification request. As part of the Consent Judgment, the revised IBT Certificate calls for Fayetteville PWC and Lower Cape Fear Water & Sewer Authority to receive a copy of the Cary/Apex annual Discharge Report and in April the Authority received a copy of the 2017 report. Correspondence received with the report indicated that because growth for both Cary and Apex has been greater in the Cape Fear basin portion of their service areas, which are served by the Western Wake Regional, the actual discharge is substantially higher than the required discharge and that trend is anticipated to continue. Executive Director Betz recalled this case went to court at a major expense to the involved parties and to the State because Cary/Apex fought not to have a discharge. The data provided in the 2017 report, confirms Cary and Apex's 3-year running average of actual discharge to the Cape Fear basin was 4.83 MGD which exceeded the state required discharge of 1.67 MGD by 3.16 MGD.

conservation plan to assure a future supply of clean water. Mr. Holman commented the Authority is one of the great models of water collaboration in North Carolina by pulling together resources and sharing cost and infrastructure to deliver a very important resource to this region of the state. Since this type of effort requires a financial investment and the possibility of property taken off of tax rolls, Director Watkins asked what type of program and cost Mr. Holman envisions for this region. Mr. Holman said a good first step would be to determine the cost of a conservation plan which he estimated could be similar to Raleigh's in the range of $50,000.00. He said the Authority and partners would need to determine their contribution amounts plus non-profit conservation groups such as The Conservation Fund raise money to support such efforts He also pointed out the importance for the partners to engage in developing the conservation plan suited to this region and offered to meet again with the Authority in order to prepare an estimate.

Chairman Sneeden provided additional information about source water protection planning. He reported that in 2014 the North Carolina General Assembly passed House Bill 894. *An Act to Improve Source Water Protection Planning*. Based on an assessment conducted by North Carolina Department of Environmental Quality (NCDEQ), the location at the Kings Bluff intakes has a moderate susceptibility rating for its potential to be impacted by contamination incidents. It seems the bill will eventually require water suppliers operating a public water system treating and furnishing water from surface water to create and implement a source water protection plan. In light of Mr. Holman's presentation, House Bill 894 and with Cape Fear Public Utility Authority, Brunswick County and Pender County operating public water systems utilizing raw surface water from the Cape Fear River, Chairman Sneeden recommended these members should research the Bill's requirements and determine if they wish to participate in a collaborative effort in developing a source water protection plan in order to make a recommendation to the Authority's full Board. In conclusion, Director Williams said it is imperative that such a plan is driven by the stakeholders rather than implementing an "off the shelf" template plan provided by a non-profit agency.

OLD BUSINESS

OB1- Report on the March 23rd Design Meeting for the Kings Bluff Raw Water Pump Station Parallel Transmission Main Project (Tony Boahn, P.E., McKim & Creed)

Mr. Boahn recalled the design schedule was postponed for approximately five months pending discussion of the utility partners regarding allocation pipe supply, capacity and financial responsibility. With the partners reaching agreement on these matters the project design meetings resumed on March 23rd. Mr. Boahn summarized the meeting reporting that based on the customer's capacity goal of 96 million gallons per day (MGD) the agreed upon recommendation is for a 54-inch, welded steel raw water main with the option to bid ductile iron as an alternative pipe material. The initial capital cost for steel pipe is estimated at $58,300,000.00 and iron pipe is estimated at $69,000,000.00. Correspondingly the life cycle cost to 2062 is estimate at $154,900,000.00 and $165,500,000.00. The new 54-inch main, in concert with the exiting 48-inch main, will provide approximately 107 MGD which slightly exceeds the maximum 20% 7Q10 withdraw of 106 MGD. The Preliminary Design Memo is now complete and the remaining design schedule is revised as follows:

30% Design Submittal	June 7, 2018
60% Design Submittal	October 2, 2018
90% Design Submittal	February 19, 2019
Final Contract Documents	April 1, 2019

OB2- Finance Committee Comments and Review of Draft Budget for Fiscal Year 2018-2019 (Chairman Sneeden)

Chairman Sneeden reported the Finance Committee met prior to the board meeting and reviewed the budget draft for Fiscal Year 2018-2019 (FY 18/19) which will be presented formally for recommendation to the full board at the June 11, 2018 board meeting. Executive Director Betz briefed the Board on the draft budget. In the current fiscal year the Authority was restored to its pre-hurricane Matthew financial balances. As noted in the budget message, the Parallel Transmission Main Project continues through the upcoming fiscal year and it is anticipated the partners will develop an additional contract for the bid package leading to the financing, Local Government approval and award of the construction of the transmission main in early Fiscal Year 19-20. The total annual debt service of $1,015,660 is funded by the water rate which will remain at $0.2717/1,000 gallons based on customers' projected, combined average, annual use of 24.93 MGD. This equates to total water rate revenue of $2,472,151.00. This is a significant increase over the current year budget. Appropriations are fairly stable with the largest being for insurance, energy, debt service and operation and maintenance. There is an increase in the Bladen Bluffs Regional Surface Water System appropriations, which are 100% reimbursable to the Authority by Smithfield Farmland. As of June 30th the estimated fund balances are: $103,170.00 for Renewal & Replacement Fund; $280,000.00 for Right of Way Fund; $462,630.00 for System Development Fund and $2,508,945.00 for Enterprise Fund. The budget also includes costs associated with modifications to the booster pump station which may be appropriated from the System Development Fund. The utility partners will meet this week to discuss booster pump station modifications and the estimated cost. At the June board meeting there will be a public hearing for

NB3 - Closed Session in Accordance with N.C.G.S. Sec.143-318.11(6) to Consider Executive Director's Annual Evaluation (Chairman Blanchard)

Motion: Director Watkins **MOVED**; seconded by Director Williams, to go into closed session in accordance with North Carolina General Statute Section 143-318.11(a) (6) to discuss the evaluation of the Executive Director. Upon vote, the **MOTION CARRIED UNAMIMOUSLY**.

At 10:05 a m the board went into closed session At 10:18 a m the board returned to open session

DIRECTOR'S COMMENTS AND/OR FUTURE AGENDA ITEMS

None

PUBLIC COMMENT

None

ADJOURNMENT

There being no further business, Chairman Sneeden adjourned the meeting at 10:20 a.m.

Respectfully Submitted:

Al Milliken, Secretary

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: Don Betz

FROM: Jack Hogan

DATE: 6/4/18

SUBJECT: Monthly Maintenance Report for May 2018

Mr. Betz,

Maintenance and Operations at the Kings Bluff Pump Station for the month of May was performed on a routine scheduled program as prescribed in the station standard operational procedures. Other items include the following.

KB personnel completed the air starter installation on # 1 & # 2 EMD generators. Both Units are now on the air starter system.

KB personnel completed painting of the airlines and manifolds on both # 1 & # 2 starter systems.

KB personnel completed testing of the air starter system on both units and they are now in auto standby.

KB personnel have started cleaning of the generator garage and building. Removing all obsolete equipment and trash.

Contractors:

Underwood Pump Co. came to the station and completed trim tabbing the # 1 GE motor to try and lower motor vibration readings that have been reading higher than # 4 & # 5 motors.

NEWCOMB completed quarterly pest control spraying of the pump station and generator building.

Palmetto Fence Co. completed repairs to the entrance gate at Kings Bluff.

Thank you,
Jack Hogan

Smithfield®

To: Don Betz - LCFWASA

From: James Kern – Bladen Bluffs SWTP ORC

Date: 6/1/18

Subject: May 2018 Operations

During the month of May the Bladen Bluffs SWTP operated a total of 17 days, treating 43.83 million gallons of water.

We used:

30,791 lbs. of aluminum sulfate (Alum)

7,869 lbs. of sodium hydroxide (Caustic)

1,018 lbs. of sodium hypochlorite (2,044 gallons of 6% Chlorine Bleach)

James Kern
Water Treatment Plant Supervisor

Smithfield.
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(910) 862-3114
(910) 862-3146
(719) 761-0026 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: 5/11/2018

ISSUE:	PLAN OF ACTION:
Various leaks on fitting in chemical room	Rescheduled for next week
Air compressor #1 and #2 failing	FIXED
Alum pump making odd noise	Milton Roy/Plumber here May 18
Permanganate pumps N/A	Milton Roy/Plumber here May 18
Need screens on chemical overflows	FIXED
Air on finished water line (maybe from GAC)	Scheduled to replace GAC #2 air relief May 14
Lights needed on lagoons	Quote obtained, future project
Lights out in pipe gallery/outdoors/sign	Lights FIXED outdoors/scheduling pipe gallery
Settle channel mud valve leaking	Scheduled for June 8
Junction box on GAC #2 needs replacement	Allegiance electric completing ASAP
Grass needs to be pulled in lagoons	COMPLETE
Settle basin full/need to land apply	COMPLETE
Floc basin #2 mud valve broke	FIXED
Floc basin #1 mud valve broke	FIXED
Toilet not flushing	FIXED

Bladen Bluffs SWTP Maintenance Report

Date: 5/18/2018

ISSUE:	PLAN OF ACTION:
Various leaks on fitting in chemical room	Scheduled for May 24
Alum pump making odd noise	FIXED
Permanganate pumps N/A	FIXED
Air on finished water line (maybe from GAC)	REPLACED air relief on GAC #2, have ACControls working on solution for air
Lights needed on lagoons	Quote obtained, future project
Lights out in pipe gallery/outdoors/sign	Lights FIXED outdoors/scheduling pipe gallery
Settle channel mud valve leaking	Scheduled for June 8
Junction box on GAC #2 needs replacement	Allegiance electric completing ASAP
Post CL17 not working correctly	FIXED

Lower Cape Fear Water & Sewer Authority
Leland, North Carolina

BUDGET AMENDMENT #2
Fiscal Year 2017 - 2018

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 2017-2018 Annual Budget Ordinances as follows:

Section 1: To amend the **Operating Fund** the appropriations are to be changed as follows:

Operating Fund:	**Increase**
4047-01 – Auditor	$ 3,600
4048-01 – Engineer	6,600
4080-01 – Miscellaneous Expense	2,200
4501-00 – Sales Tax Expense	18,200
4510-01 – Bladen Bluffs O&M Expense	288,500
4530-01 – Kings Bluff O&M Expense	40,600
4546-01 – Bladen Bluffs Interest Debt Service	12,000
	$ 371,700

The total increase of appropriations is primarily due to an increase in Bladen Bluffs Regional Surface Water System Facility operation and maintenance costs and related sales tax costs. Operating revenue for this increase has already been received from Smithfield Farmland. An additional increase is due to an unbudgeted maintenance project for blasting and painting of the surge tanks at the Kings Bluff pump station as identified in the *Kings Bluff Water Supply System Annual Inspection Report* prepared by McKim & Creed. Receipt of raw water revenue budgeted in accordance with customers' water use projections has exceeded the budgeted amount; therefore, the additional operating revenue is available for this maintenance project. To budget this increase in appropriations, the following revenues will be amended.

Operating Fund:	**Increase**
3000-01 – Raw Water Operating Revenue	$ 53,000
3006-01 – Bladen Bluffs Operating Revenue	318,700
	$ 371,700

Section 2: To amend the **Enterprise Fund**, the following is to be increased:

Enterprise Fund:	
3170-04 – Transfer In (From Operating Fund)	$ 317,149.73

To amend the **Operating Fund**, the following is to be decreased:

Operating Fund:	
4998-01 – Transfer Out (To Enterprise Fund)	$ 317,149.73

In accordance with the federally declared disaster of Hurricane Matthew, the Authority filed a Subgrant Application with FEMA for Public Assistance in the amount of $2,581,934.95 to reimburse Brunswick

County and Cape Fear Public Utility Authority (CFPUA) for their costs incurred to repair a joint failure in the Authority's 48-inch existing raw water transmission main. On July 6th the Authority received written notice that a FEMA check was issued on July 5th for approximately 85% of the total amount and was informed a FEMA check for the remaining 15% would be issued upon receipt of documentation from the Authority verifying that all costs were paid in full. With approval of Budget Amendment #1, the transfer of funds from the Enterprise Fund to the Operating Fund provided for full payment to Brunswick County and Cape Fear Public Utility and for payment verification to FEMA. In November, 2017 upon receipt of reimbursement by Brunswick County for SmartBall inspection costs not covered by FEMA assistance, the Authority was restored to its pre-hurricane financial position. This transfer of funds from the Operating Fund to the Enterprise Fund restores the Enterprise Fund pre-hurricane fund balance.

Section 3: To amend the **Renewal & Replacement Fund (R&R)**, the following is to be increased:

R&R Fund:

3170-05 – Transfer In (From Right of Way Fund - ROW)	$	141.34

To amend the **Right of Way Fund (ROW)**, the following is to be decreased:

ROW Fund:

4998-06 – Transfer Out (To Renewal & Replacement Fund)	$	141.34

This fund was established in fiscal year 2006-2007 to hold a deposit of $280,000.00 for the use of the Authority's right of way for the placement of a road and utilities. The terms of the agreement provided that the accrued interest would go to the Authority. This transfer of funds maintains the Right of Way Fund balance at $280,000.00 and transfers the accrued interest into the Authority's Renewal and Replace Fund.

Section 4: 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:

_____

Don Betz, Finance Officer

This Budget Amendment adopted this 11th day of June, 2018.

_____

Larry Sneeden, Chairman

ATTEST:

_____

Al Milliken, Secretary

Old Business (OB1)	Lower Cape Fear Water & Sewer Authority

AGENDA ITEM

To: CHAIRMAN SNEEDEN AND BOARD MEMBERS

From: DON BETZ, EXECUTIVE DIRECTOR

Date: June 11, 2018

Re: Public Hearing and Approval of Fiscal Year 2018 – 2019 Budget and Budget Ordinance for Fund Appropriations in the Specified Amounts

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Please find enclosed for the Board's consideration, appropriations for the listed funds for operation of the Authority for the Fiscal Year beginning July 1, 2018 and ending June 30, 2019.

Public Hearing: In accordance with North Carolina General Statute Section 159-12 (b), prior to adopting the budget ordnance, the Board shall hold a public hearing at which time any persons who wish to be heard on the budget may appear.

Motions to Open Public Hearing

1. A motion is made by _____ to open a public hearing on the FY 2018-2019 Budget.

2. The motion is seconded by _____.

Motions to Close Public Hearing

1. A motion is made by _____ to close the public hearing.

2. The motion is seconded by _____.

Staff would recommend approval of the Fiscal Year 2018-2019 Budget.

A. Operating Fund Appropriations for Fiscal Year 2018-2019 in the Amount of $4,855,014.00
B. Enterprise Fund/Capital Project Fund Appropriations for Fiscal Year 2018-2019 in the Amount of $3,354,503.00

Action Requested: Motion to approve/disapprove Budget Ordinance for Fiscal Year 2018-2019

ANNUAL BUDGET

Fiscal Year 2018 - 2019

LOWER CAPE FEAR WATER & SEWER AUTHORITY
1107 NEW POINTE BLVD., SUITE 17
LELAND, NORTH CAROLINA 28451

AUTHORITY BOARD OF DIRECTORS

LARRY SNEEDEN, CHAIRMAN	NEW HANOVER COUNTY
WAYNE EDGE, VICE CHAIRMAN	BLADEN COUNTY
WILLIAM A. MILLIKEN, SECRETARY	BRUNSWICK COUNTY
TRENT BURROUGHS, TREASURER	COLUMBUS COUNTY
CHARLIE RIVENBARK, ASST. TREASURER	CITY OF WILMINGTON
NORWOOD BLANCHARD	PENDER COUNTY
LARRY JOHNSON	BLADEN COUNTY
AL LEONARD	COLUMBUS COUNTY
JACKIE NEWTON	PENDER COUNTY
PHIL NORRIS	BRUNSWICK COUNTY
BILL SAFFO	CITY OF WILMINGTON
WILLIAM SUE	BRUNSWICK COUNTY
SKIP WATKINS	NEW HANOVER COUNTY
FRANK WILLIAMS	BRUNSWICK COUNTY

DON BETZ, EXECUTIVE DIRECTOR

AMY SCRUGGS, ADMINISTRATIVE ASSISTANT

LOWER CAPE FEAR WATER & SEWER AUTHORITY
BUDGET MESSAGE
Fiscal Year 2018 -2019

June 11, 2018

Chairman Sneeden and Board Members:

In accordance with North Carolina General Statute 159 Article 3 entitled *The Local Government Budget and Fiscal Control Act*, please find enclosed the recommended Budget for the fiscal year beginning July 1, 2018 and ending June 30, 2019.

The Public Hearing on the Annual Budget will be held during the regularly scheduled monthly meeting of the Authority at 9:00 a.m. on Monday, June 11, 2018 in the conference room of the Authority's office located at 1107 New Pointe Boulevard, Suite # 17, Leland, North Carolina.

A legal notice was published on May 16, 2018 in accordance with the above referenced Statute.

The enclosed fiscal year 2018-2019 (FY18-19) budget documents are presented in accordance with the General Statutes.

The Authority's Annual Budget is the blueprint for the allocation of the water revenues to the operation of the core business of providing raw water from the Cape Fear River to the Authority's customers' treatment processes within its service area. A slight increase in water demand is included in the FY18-19 budget which will help offset similar increases in necessary expenditures. Highlights of the budget plan are presented below.

In FY 18-19, the Authority is expecting the Interlocal Agreement with Brunswick County and the Cape Fear Public Utility Authority (CFPUA) for the design of the 54-inch parallel transmission main to be completed by McKim & Creed, the design engineers. The Authority is contributing the use of its 75 foot right-of-way as an in-kind contribution to the design cost of $1,500,000.00. Brunswick County and CFPUA are equally funding the cost of design in their respective budgets. CFPUA is managing the design project with participation from Brunswick County and the Authority. It is anticipated that the parties will develop an additional contract for the bid package leading to the financing, Local Government approval and award of the construction of the transmission main in early FY 19-20. The construction period is expected to be 24 months.

During FY 17-18, the Authority received full reimbursement from FEMA for the transmission main failure as a result of Hurricane Matthew in October of 2016. In addition the Authority received full reimbursement for the mitigation measures of the SmartBall inspection of the 14-mile section of the 48-inch main as a result of a grant applied for by Brunswick County. These measures have restored the Authority's finances to pre-disaster balances.

The Annual Budget includes the Operating Fund, the Renewal & Replacement Fund, ROW Fund, System Development Charge Fund and the Enterprise Fund/Capital Project Fund.

OPERATING FUND: This fund receives all income from customers, interest earnings and sales tax refunds for operating expenses and disperses all expenditures necessary for the day to day operation of the Authority's Kings Bluff Raw Water Pump Station (KBRWPS) and its Bladen Bluffs Regional Surface Water System (BBRSWS).

Kings Bluff Raw Water Pump Station:
The major components of operating expenditures are energy and operation & maintenance contract along with the other administrative expenses.

A) Utilities/Energy: The Authority entered into a contracted curtailment demand program (Demand Response Automation Rider) to receive energy credits on a monthly basis for and performance credit during three curtailment events. These credits have provided for a means to offset rate increases. The original contract agreement has ended. The Authority is in the second year of a two year renewable period that is subject to be renewed for an additional two years.

B) Administrative Expenses: The FY 18-19 budget includes a salary adjustment of 2.4% for the Executive Director position and 3.0% for the Administrative Assistant position. The salary adjustment total is reflected in the Bladen Bluffs Budget. The engineer's cost is being held constant in 2018-2019. The engineer will continue to perform an annual inspection report of the Authority's two systems as this is a requirement of the Bond Orders.

In consultation with the Authority's Finance Committee, it is recommended that the Authority continues its KBRWPS raw water rate of $0.2717 per 1,000 gallons based upon the projected combined average annual use of 24.93 million gallons per day (MGD) of water by Brunswick County, CFPUA, Highway 421, Praxair and Pender County. The raw water rate will provide for the $1,015,660.00 in debt service encumbered as a result of the $5,507,451.00 Series 2012 Refunding Revenue Bond at 1.95% and the $3,000,000.00 Series 2010 Revenue Bond, subsidized by the Federal Budget. The debt funded the necessary expenditures for Phase I and Phase II Capital Improvements at the KBRWPS.

The Authority issued a contract termination notice effective March 1, 2020 regarding the 6.5 MGD original contract for Cape Industries on Highway 421. A new water supply agreement for 2.5 MGD is being prepared to make available a raw water supply to Invista on Highway 421 as it provides a non-potable process water component to two other companies. The Authority serves as a backup water supply to the ground water well system that supplies Fortron and Southern States.

Bladen Bluffs Regional Surface Water System:
All BBRSWS debt service principal and interest payments for the $21,375,000.00 Variable Rate Special Facility Revenue Bonds (Bladen Bluffs) Series 2010 is made by Smithfield Farmland with the liability held in the name of the Authority. The December 1, 2018 bond payment will be $695,000.00. Interest is paid monthly. The company pays the monthly interest and annual bond payments directly to the Trustee.

BBRSWS is operated by Smithfield Farmland under the terms of the Operation and Maintenance Agreement. The company pays the Authority on a monthly basis for all the operating costs to include the Authority's staff time associated with the accounting. The vendor and miscellaneous costs associated with the operating of the treated water plant are processed through the Authority as the company does not have the accounting staff on site to handle the duties. The operating staff has been on site for six years and through the budget process the Authority is able to observe the necessary operational costs of the plant in advance of the date that the Authority may want to assume the operating duties. This fund functions as a "pass through" fund with the accounting of revenues and expenditures having no net impact on the bottom line.

RENEWAL & REPLACEMENT FUND (R&R): This fund has been established and funded for unexpected operational and maintenance repair needs during the fiscal year. It is estimated that the R & R Fund will have a balance of $63,119.00 as of June 30, 2018.

RIGHT OF WAY FUND (ROW): This fund was established in fiscal year 2006-2007 to hold a deposit of $280,000.00 for the use of the Authority's right of way for the placement of a road and utilities. The terms of the agreement provided that the accrued interest would go to the Authority. As of June 30, 2018, the ROW Fund will have an estimated balance of $280,000.00.

SYSTEM DEVELOPMENT CHARGE FUND: This fund was established in the fiscal year 2007-2008 to provide for the receipt of system development charges from Pender County in accordance with the Water Supply Agreement adopted by the Pender County Board of Commissioners and the Board of Directors of the Authority in September 2006. The agreement provided for semi-annual payments for a period of 10 years. The final payment of $51,336.12 was received from the County during the prior fiscal year. These funds will be held in reserve for the future capital improvement needs of the Authority's facilities and system. The balance of the fund at June 30, 2018 is estimated to be $462,633.00.

ENTERPRISE FUND/CAPITAL PROJECT: This fund was established and funded with various revenue sources and is used for operations or acquisition and construction of major projects. At year end closeout revenue in excess of expenditures from the Operating Fund may be journalized to this fund as undesignated. As of June 30, 2018, the Enterprise Fund will have an un-appropriated balance of $2,548,752.00.

The budget also includes $26,000.00 for engineering, design and permitting costs associated with modifications to the booster bump station for improvements to protect it from weather elements. It is anticipated these improvements will be a significant cost factor and if approved by the Board of Directors will be completed during the fiscal year.

It is anticipated that during the actual construction of the new parallel line that one or more interconnections between the LCFWASA line and the existing CFPUA line will be funded by the Authority in 2020-2021.

While the recommended budget will most likely not provide any significant surplus at June 30, 2019, it is the directive of the Board that any extraordinary income or surplus be directed to the Capital Reserve Fund.

The budget message transmittal is paired with the budget ordinances and is the basis for the staff's work directive during the fiscal year.

As Budget Officer, I would like to take this opportunity to acknowledge the valuable assistance of the Finance Committee in the preparation of these documents.

Cordially,

Don Betz
Executive Director

Lower Cape Fear Water & Sewer Authority
Operating Fund
Water Rate Calculation
FY 2018 -2019

REVENUE		
*Water Rate Revenue	$	**2,472,151**
Bladen Bluffs	$	2,327,331
Sales Tax Refund	$	37,000
Federal Tax Subsidy	$	18,532
	$	**4,855,014**

EXPENDITURES		
Administration Expense	$	466,713
Operating Expense	$	2,327,641
Debt Service Expense	$	2,060,660
	$	**4,855,014**

***Calculation of Water Rate Revenue**

Brunswick County	12.09	MGD	* 365 =	4,414	MGY
CFPUA	11.08	MGD	* 365 =	4,046	MGY
Pender County	1.42	MGD	* 365 =	519	MGY
HWY 421	0.30	MGD	* 365 =	110	MGY
Praxair, Inc.	0.03	MGD	* 365 =	11	MGY
	24.93	MGD		9,099	MGY

Raw Water Rate

Brunswick County.....	4,414	MG	x	$0.2717 =	$	1,199,249
CFPUA.....	4,046	MG	x	$0.2717 =	$	1,099,243
Pender County.....	519	MG	x	$0.2717 =	$	140,933
HWY 421.....	110	MG	x	$0.2717 =	$	29,751
Praxair, Inc.....	11	MG	x	$0.2717 =	$	2,975
	9,099	**Total Water Revenue**			**$**	**2,472,151**

Water Rate

$2,472,151 / 9,098,834 = **$0.2717**

Lower Cape Fear Water & Sewer Authority
2018 - 2019 Annual Budget

FUND: OPERATING

		Amended	Fiscal Year 2018-2019		LCFWASA
		LCFWASA 2017-2018 Budget	KINGS BLUFF	BLADEN BLUFFS	FY 18-19 Budget
REVENUES:					
Operating					
Brunswick County	3001-01	*1,210,592*	1,199,249		1,199,249
Cape Fear Public Utility Authority	3002-01	1,057,658	1,099,243		1,099,243
Pender County	3003-01	119,303	140,933		140,933
HWY 421	3004-01	29,751	29,751		29,751
Praxair, Inc.	3005-01	2,975	2,975		2,975
Bladen Bluffs Revenue	3006-01	*2,155,500*		2,327,331	2,327,331
Sales Tax Refund Receivable	3007-01	*38,200*	0	37,000	37,000
	SUBTOTAL	**4,613,979**	**2,472,151**	**2,364,331**	***4,836,482***
Nonoperating					
Other Revenue (Hurricane Matthew)	3120-01	2581935	0		0
Federal Tax Subsidy	3125-01	27,419	18,532		18,532
Transfer In	3170-01	*317,150*	0		0
	SUBTOTAL	**2,926,504**	**18,532**		**18,532**
TOTAL REVENUES		***7,540,483***	**2,490,683**	**2,364,331**	**4,855,014**
EXPENDITURES:					
Administration					
Salaries	4001-01	157,300	131,178	29,422	160,600
Per Diem & Mileage - Board Members	4010-01	49,600	49,600		49,600
FICA Taxes (Social Security + Medicare)	4019-01 & 4024-01	15,330	13,750	1,850	15,600
Retirement	4029-01	13,700	11,755	1,945	13,700
401K Plan	4035-01	4,712	4,230	590	4,820
Miscellaneous Payroll Expenses	4036.01	2,145	2,000	145	2,145
Insurance, Group	4038-01	29,570	23,844	7,326	31,170
Insurance, Property & Liability	4039-01	102,750	76,604	28,553	105,157
Attorney	4046-01	14,000	11,000	4,000	15,000
Auditor	4047-01	*11,350*	7,500	2,000	9,500
Engineer	4048-01	*22,600*	9,500	6,500	16,000
Office Maintenance/Repair/Common Charge	4055-01	9,560	11,060		11,060
Office Utilities	4058-01	2,700	2,700		2,700
Office Expenses (telephone/printing/advertising etc.)	4059-01	8,656	8,661		8,661
Travel & Training	4070-01	7,500	9,500		9,500
Vehicle Expense	4075-01	5,000	5,000		5,000
Miscellaneous Expense	4080-01	*6,700*	6,500		6,500
SUBTOTAL		***463,173***	***384,382***	***82,331***	***466,713***
Operating					
Sales Tax Expense	4501-01	*38,200*		37,000	37,000
Bladen Bluffs O&M Expense	4510-01	*1,182,250*		1,200,000	1,200,000
Utilities/Energy - Kings Bluff Pump Station	4520-01	650,000	700,000		700,000
O&M Expenses Kings Bluff (Contract, Phone, Vehicles, Miscel.)	4530-01	*385,241*	364,641		364,641
Hurricane Matthew Expense	4335-01	2,581,935	0		0
O&M Expenses Kings Bluff Booster Pump Station	4537-01	0	26,000		26,000
Series 2010 Bond-Principal Debt Service (PNC)	4541-01	351,430	361,305		361,305
Series 2010 Bond-Interest Debt Service (PNC)	4542-01	60,932	41,182		41,182
Series 2012 Bond-Principal Debt Service (ST)	4543-01	556,732	567,589		567,589
Series 2012 Bond-Interest Debt Service (ST)	4544-01	56,440	45,584		45,584
Series 2010 Bladen Bluffs Principal Debt Service (BB)	4545-01	645,000		695,000	695,000
Series 2010 Bladen Bluffs Interest Debt Service (BB)	4546-01	252,000		350,000	350,000
Transfer Out	4998-01	*317,150*			
SUBTOTAL		***7,077,310***	***2,106,301***	***2,282,000***	***4,388,301***
TOTAL EXPENDITURES		***7,540,483***	**2,490,683**	**2,364,331**	**4,855,014**

BUDGET ORDINANCE
FY 2018-2019
Lower Cape Fear Water & Sewer Authority

BE IT ORDAINED by the Governing Board of the Lower Cape Fear Water & Sewer Authority:

Section 1: It is estimated that the following revenues will be available in the **Operating Fund** for the fiscal year beginning July 1, 2018, and ending June 30, 2019:

REVENUES	
Brunswick County	$ 1,199,249
Cape Fear Public Utility Authority	1,099,243
Pender County	140,933
Hwy 421	29,751
Praxair	2,975
Bladen Bluffs Revenue	2,327,331
Sales Tax Refund	37,000
Federal Tax Subsidy	18,532
TOTAL REVENUES	**$ 4,855,014**

The following amounts are hereby appropriated in the **Operating Fund** for the operation of the Authority and its activities for the fiscal year beginning July 1, 2018, and ending June 30, 2019:

APPROPRIATIONS	
Administration	$ 466,713
Operating	
Sales Tax Expense	37,000
Bladen Bluffs Expense	1,200,000
Utilities/Energy – Kings Bluff Pump Station	700,000
O&M Expense – Kings Bluff	364,641
O&M Kings Bluff Intermediate Booster Pump Station	26,000
Series 2010 Revenue Bond-Principal Expense (PNC)	361,305
Series 2010 Revenue Bond-Interest Expense (PNC)	41,182
Series 2012 Revenue Bond-Principal Expense (ST)	567,589
Series 2012 Revenue Bond-Interest Expense (ST)	45,584
Series 2010 Revenue Bond-Principal Expense (BB)	695,000
Series 2010 Revenue Bond-Interest Expense (BB)	350,000
TOTAL APPROPRIATIONS	**$ 4,855,014**

Section 2: The Board of Directors of the Lower Cape Fear Water & Sewer Authority hereby establishes a raw water rate of $0.2717 per 1,000 gallons as July 1, 2018 for raising the necessary revenue to balance the appropriations noted in Section 1.

Section 3: It is estimated that the following revenues will be available in the **Enterprise/Capital Project Funds** for the fiscal year beginning July 1, 2018, and ending June 30, 2019:

REVENUES		
Renewal & Replacement (R&R) – Fund Balance	$	63,119
Right of Way (ROW) – Fund Balance		280,000
System Development Charge Fund – Fund Balance		462,633
Enterprise Fund – Fund Balance		2,548,751
TOTAL ESTIMATED REVENUES	**$**	**3,354,503**

The following amounts are hereby appropriated in the **Enterprise/Capital Reserve Funds** for the fiscal year beginning July 1, 2018, and ending June 30, 2019:

APPROPRIATIONS		
Renewal & Replacement (R&R) - Future Needs	$	63,119
Right of Way (ROW) - Appropriated Fund Balance		280,000
System Development Charge Fund - Future Capital Needs		462,633
Enterprise Fund - Appropriated Fund Balance		2,548,751
TOTAL APPROPRIATIONS	**$**	**3,354,503**

Section 4: Copies of this Budget Ordinance shall be furnished to the Finance Officer to be kept on file for direction in the disbursement of funds.

Adopted this 11th day of June, 2018

_____

Larry Sneeden, Chairman

ATTEST:

_____

Al Milliken, Secretary

Old Business (OB2)

Lower Cape Fear Water & Sewer Authority

AGENDA ITEM

To: CHAIRMAN SNEEDEN AND BOARD MEMBERS

From: DON BETZ, EXECUTIVE DIRECTOR

Date: June 11, 2018

Re: Intermediate Booster Pump Station Structure Improvements (Tony Boahn, P.E., McKim & Creed)

During January's winter weather, the booster pump station failed to perform due to freeze damage. Consequently, representatives from the Authority's customers met in February to discuss how to better protect the station from exposure to the elements. By consensus, the group's preference was the option of a shed-type enclosure (roof with open walls). Upon McKim & Creed obtaining cost estimates for construction of the structure, the group met once again on May 17th. Based on direction provided at this meeting, McKim & Creed prepared a Technical Memorandum which is provided with this agenda item.

Mr. Boahn will review the Technical Memorandum.

Action Requested: Presented as information

McKIM & CREED

TECHNICAL MEMORANDUM

TO: Mr. Don Betz, Executive Director
Lowe Cape Fear Water & Authority

DATE: May 30, 2018

FROM: Tony Boahn, PE

SUBJECT: Interim Booster Pump Station – Building Improvements
MC Project No. 01675-0046

NORTH CAROLINA PROFESSIONAL SEAL 025512 ENGINEER ANTHONY W. BOAHN
5-30-18

Background

The original Kings Bluff Regional Raw Water System (constructed early 1980's) was designed to convey raw water from the Kings Bluff Pump Station to a 3 MG ground tank located near the City of Northwest. The primary customer of the original system was Brunswick County. The next phase of the Kings Bluff system entailed construction of a 48-inch raw water main (1990's) that provided raw water supply to CFPUA and other industrial customers along US 421 in New Hanover County. These customers (which now include Pender County) are supplied via gravity flow from the ground tank. As raw water demands increased, the existing system was eventually unable to meet minimum pressure requirements for customers downstream of the ground tank during peak summer demands. To address this issue, the LCFWSA constructed the Interim Booster Pump Station (IBS) in 2013, which includes three diesel driven raw water pumps capable of producing 29 MGD at pressures sufficient for customer needs (See **Figure 1**).

When originally constructed, the IBS diesel pumps were acquired via rental agreement with Mersino Pumps, who would wholly own and maintain the pumps. As part of the rental agreement, the pumps were to be installed by Mersino during the peak summer months and then removed during the non-peak months. Following the original installation, the LCFWSA purchased the pumps from Mersino, thereby affecting a permanent installation of the IBS.

In January 2018, the IBS experienced damage as a result of abnormal freezing temperatures, which caused failure of drain valves and air release valves at the site. As a result of this damage, the IBS was inoperable. Upon further review of the damage to the station components, it was also noted that continued exposure to the elements had created maintenance issues with control screens, piping, and other miscellaneous items at the facility. Subsequently, the LCFWSA authorized McKim & Creed to conduct a cursory evaluation of options to provide a shelter or structure to protect the facility from the elements, including freeze protection.

Evaluation of Options

Representatives of Pender County, Brunswick County, and CFPUA met to discuss the issues associated with the station and provided basic direction to McKim & Creed as to the type of improvements desired. Generally, the following criteria were developed:

1) Add a new shelter-type structure to protect the facility from the elements. The shelter would be open on all sides, but would be designed to be enclosed should the LCFWSA need to do so at a future date. **Figure 6** provides a sample illustration of a typical pre-engineered metal shelter-type structure.

2) Building design would include provisions for exhaust of diesel pumps.

3) Provide freeze protection for major elements. This would be a combination of heat trace and insulation.

4) Provide interior concrete slab. The current facility has concrete slabs where the pumps and fuel cells are installed and the new slab would fill in the open gaps for a complete floor space.

5) Provide interior lighting for maintenance personnel.

6) Ensure adequate access to the new structure to include gravel access

7) The building will not be equipped with a hoist or trolley system to remove pumps.

Based on these criteria, two options were evaluated.

- **Option 1** – The structure would be designed as an A-frame style with the ridge running along the long axis of the pump station site. See **Figure 2** and **3** for schematics of Option 1.

- **Option 2** – The structure would be designed as an A-frame style with the ridge running along the short axis of the pump station site. See **Figure 4** and **5** for schematics of Option 1.

Budgetary opinions of probable cost were developed for each option, which are provided as follows:

Option 1

Item	Estimated Amount
Construction	$330,000
Contingency	$50,000
Technical Fees	$40,000
Total	**$420,000**

Option 2 (Recommended)

Item	Estimated Amount
Construction	$275,000
Contingency	$40,000
Technical Fees	$35,000
Total	**$350,000**

Review of the options indicated that both provided similar protection for the facility, access and expandability. In addition to the lower capital cost associated with Option 2, it was determined that this configuration was more conducive for maintenance and operations of the facility due to reduced building column requirements, resulting in improved access to equipment. Therefore, based on the criteria evaluated, Option 2 is the most cost-effective option for building improvements to the IBS facility.

Figures

- *Figure 1 – Current Interim Booster PS Site*
- *Figure 2 – Option 1*
- *Figure 3 – Option 1*
- *Figure 4 – Option 2 (Recommended)*
- *Figure 5 – Option 2 (Recommended)*
- *Figure 6 – Typical Shelter Structure*

END OF TECHNICAL MEMORANDUM

Figure 1 - Current Interim Booster PS Site

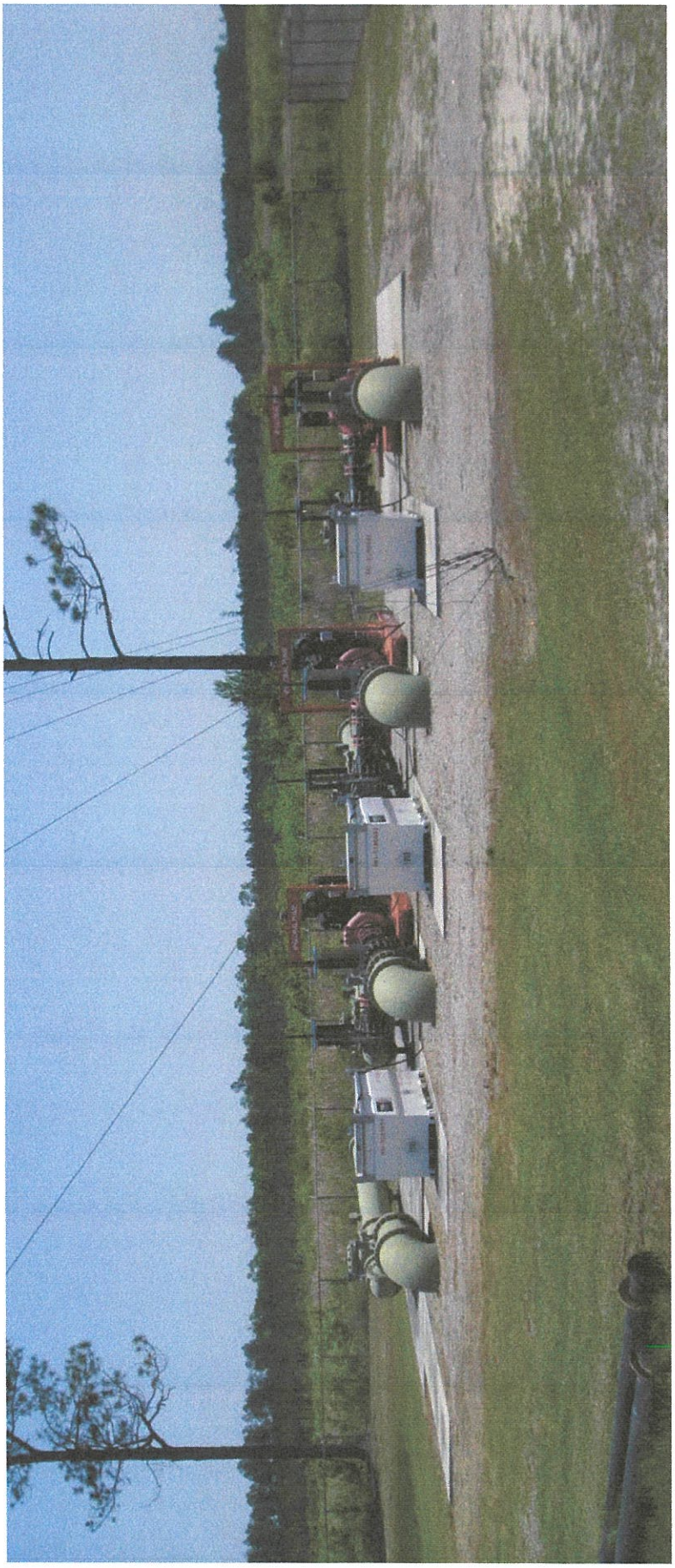


Figure 2 - Option 1

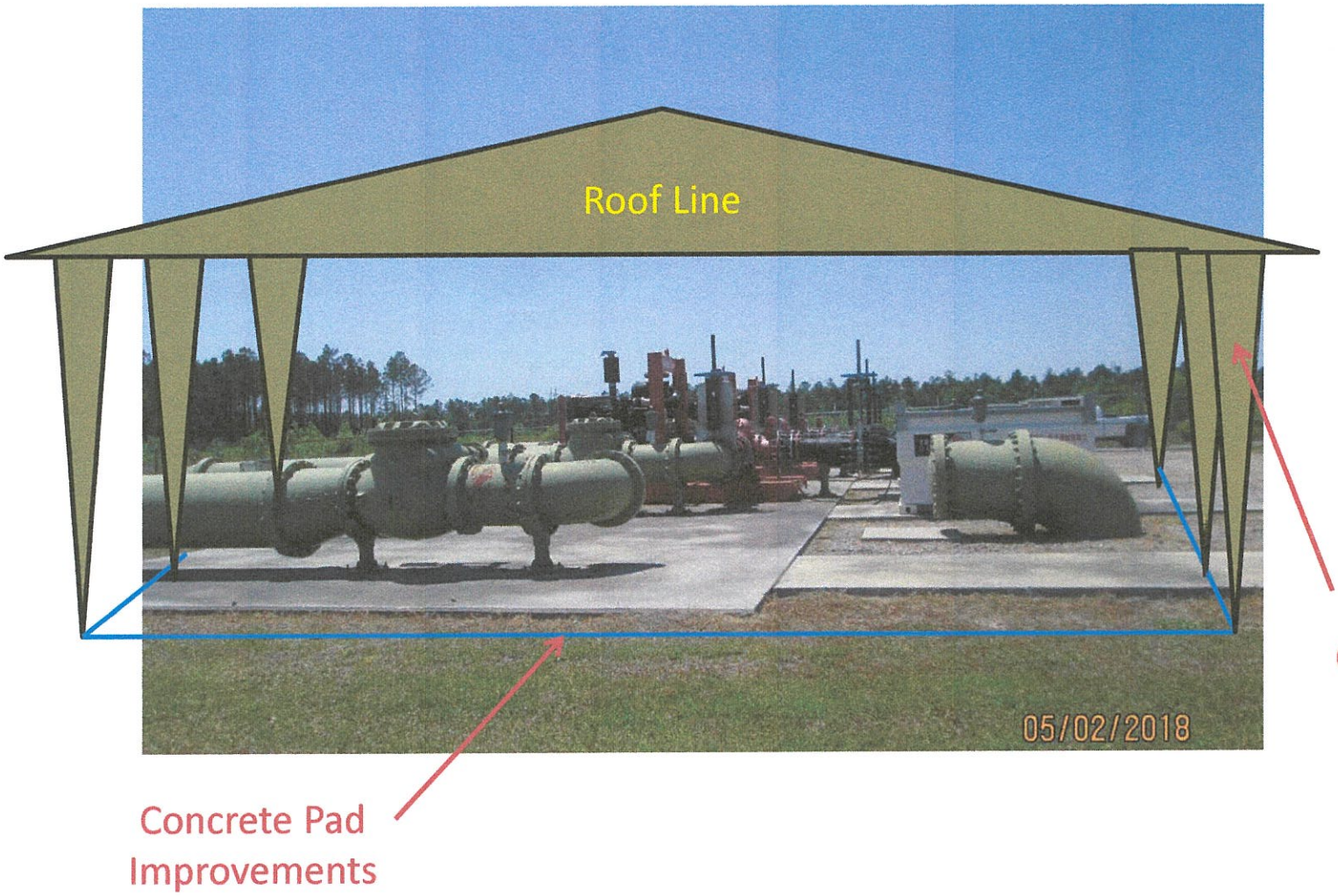


Figure 3 - Option 1

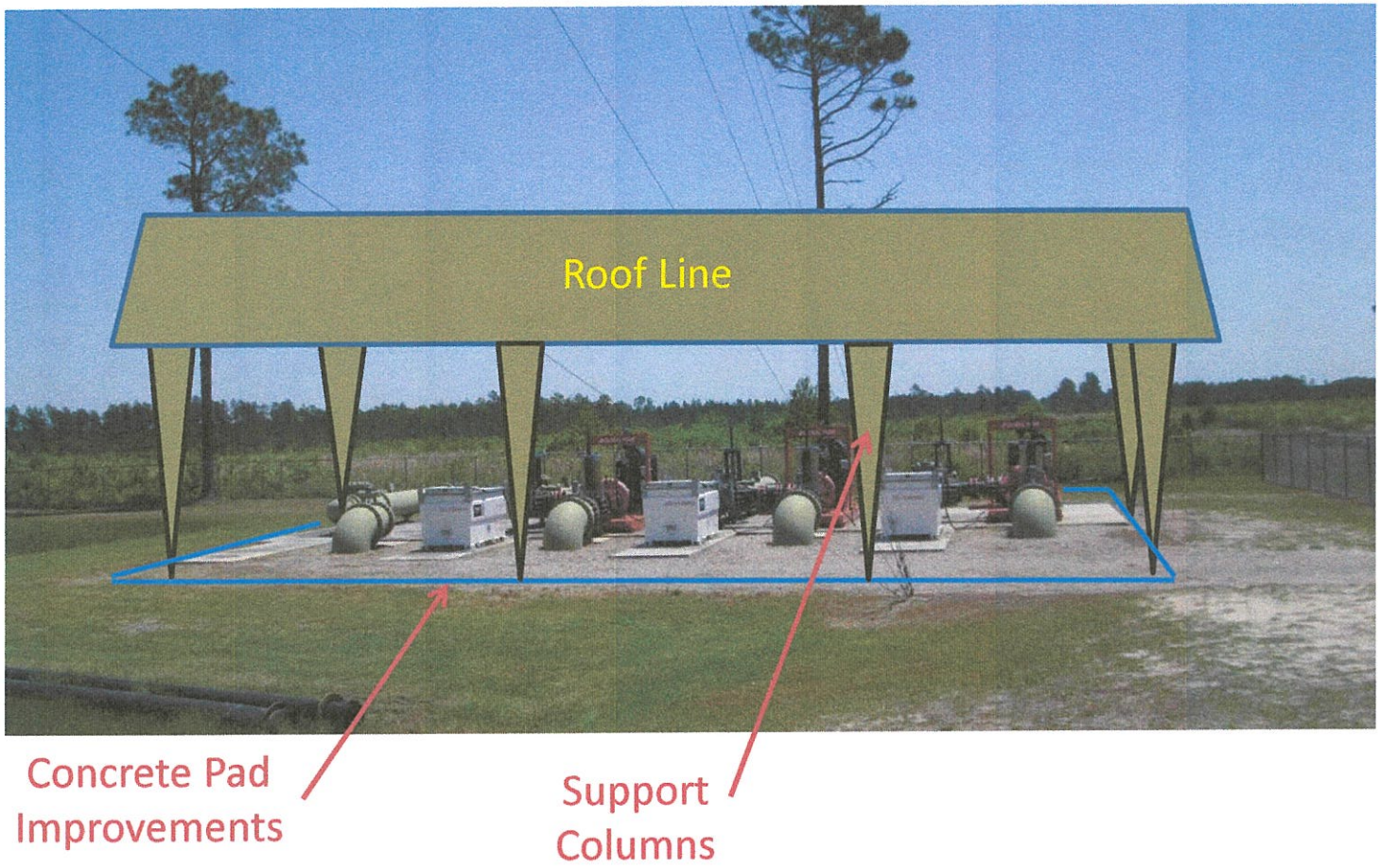


Figure 4 - Option 2 (Recommended)

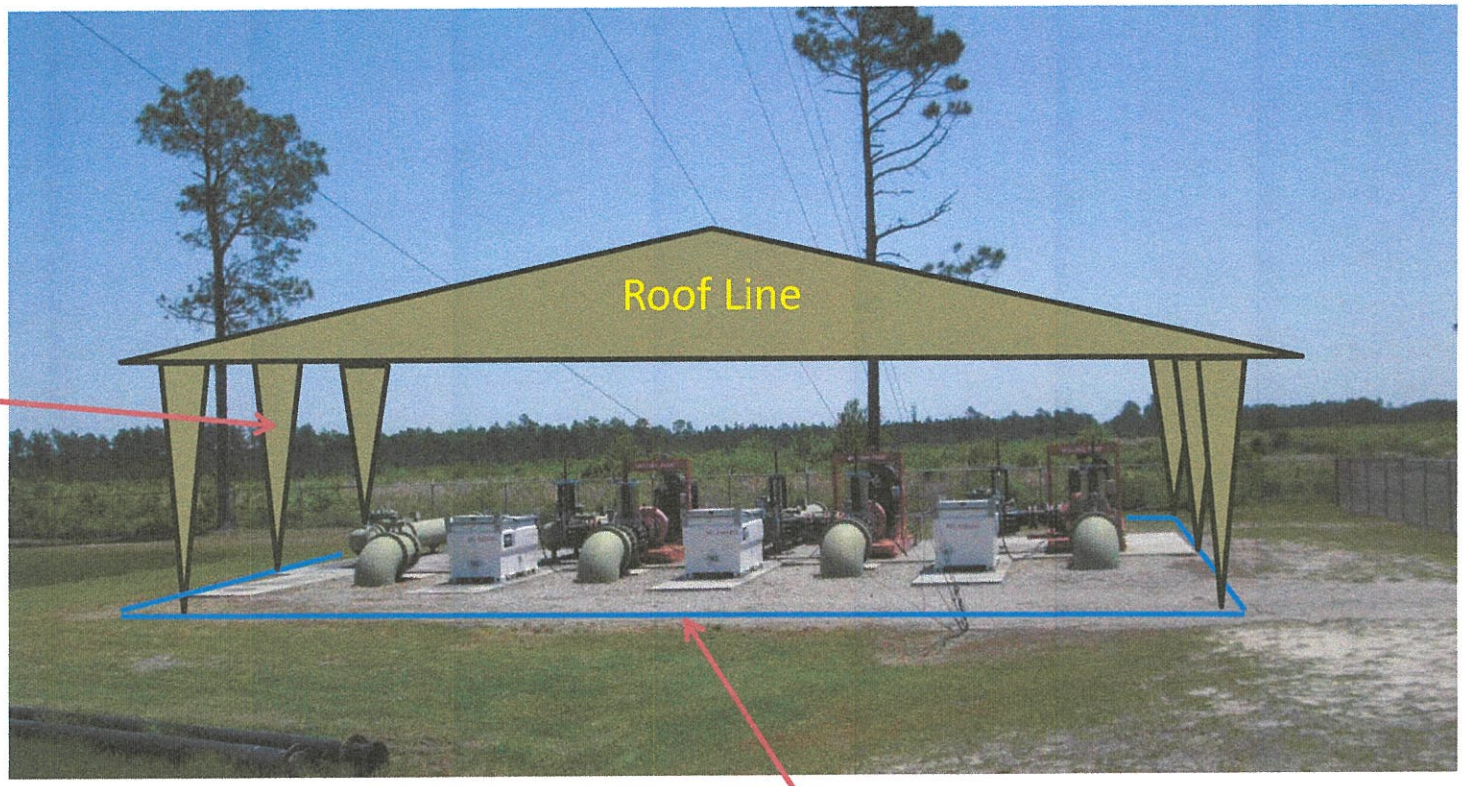


Figure 5 - Option 2 (Recommended)

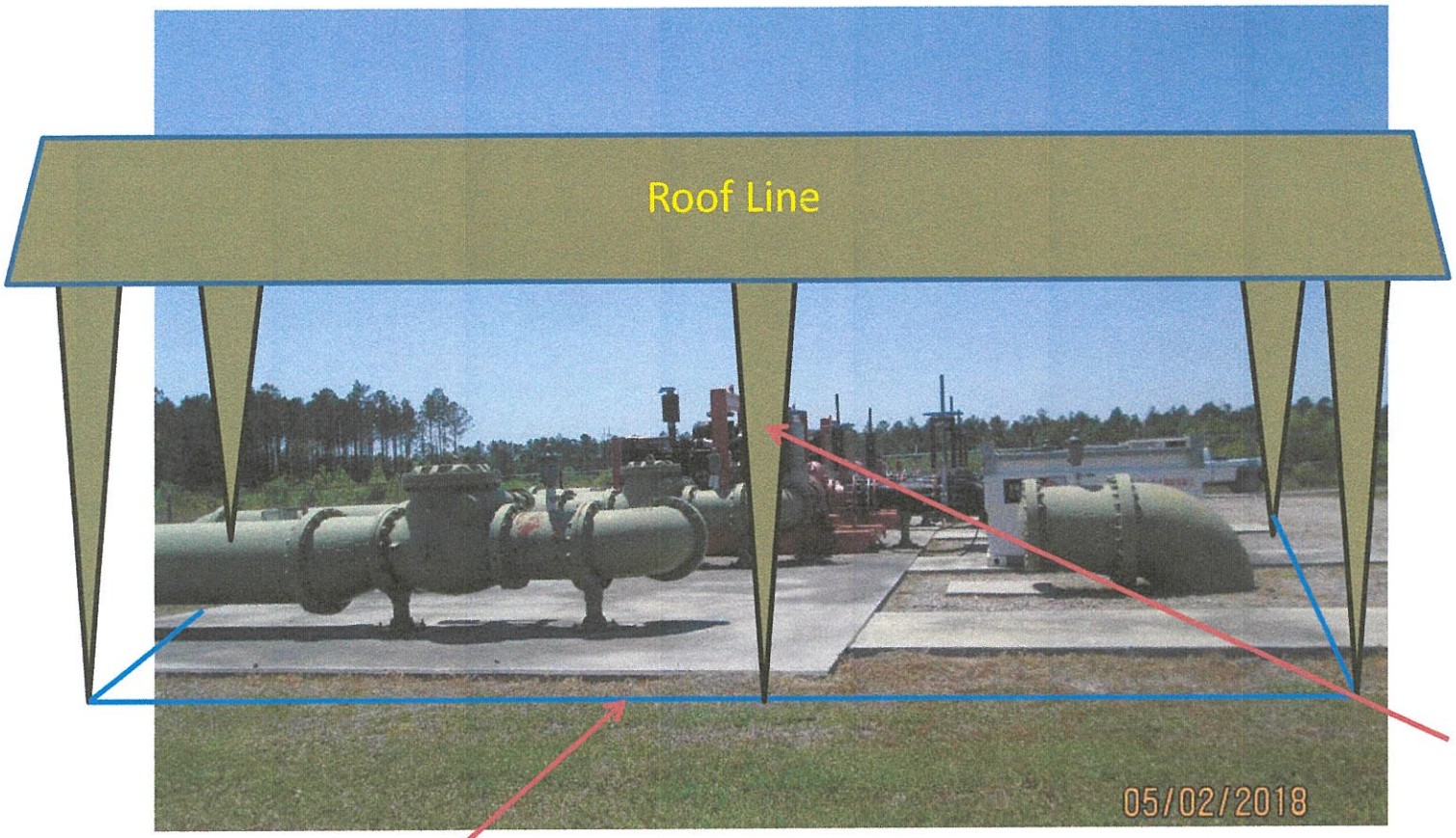
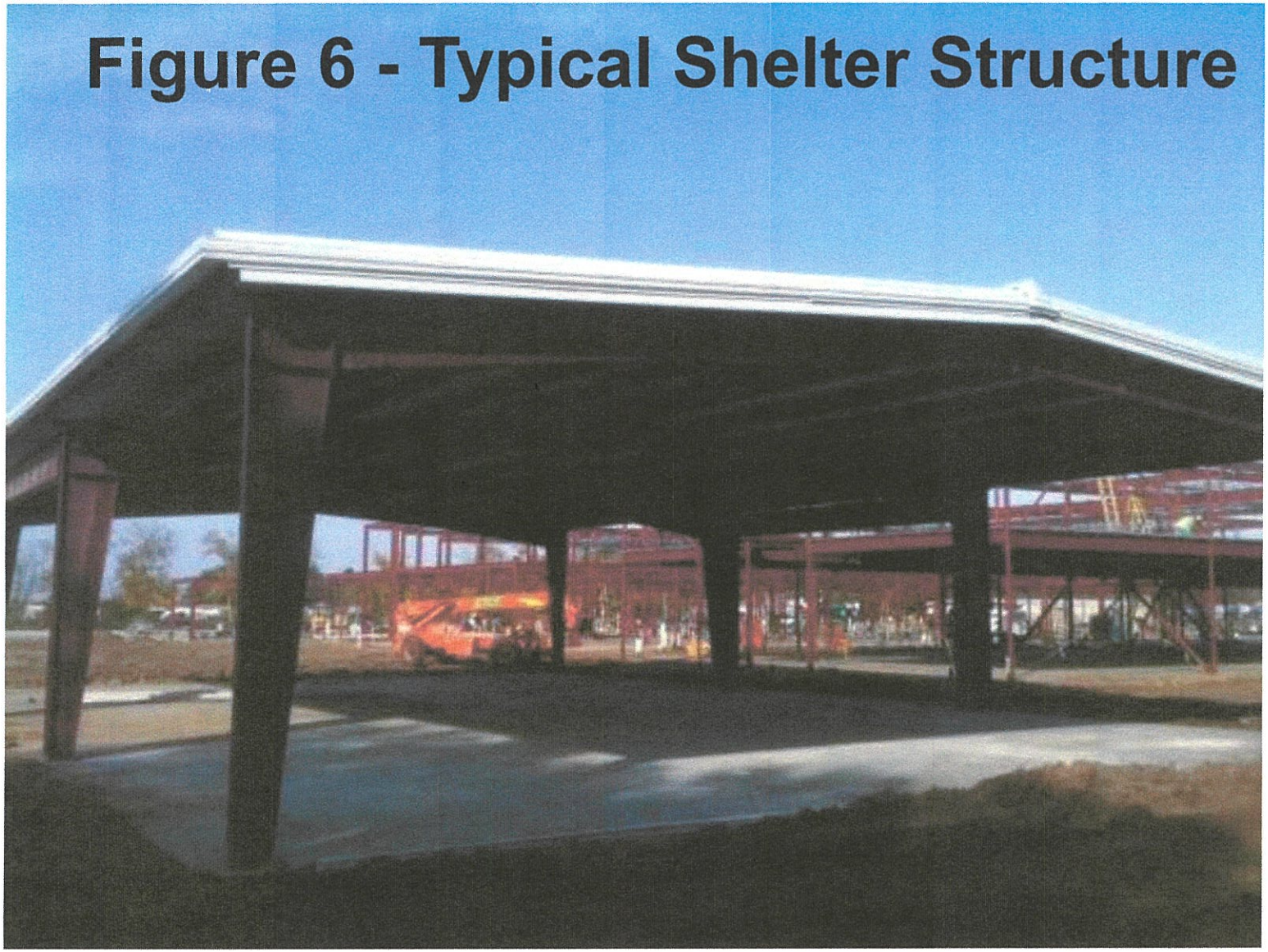


Figure 6 - Typical Shelter Structure



Old Business (OB3)

Lower Cape Fear Water & Sewer Authority

AGENDA ITEM

To: CHAIRMAN SNEEDEN AND BOARD MEMBERS

From: DON BETZ, EXECUTIVE DIRECTOR

Date: June 11, 2018

Re: Report on Distinction Between Owner Liability and Customer/Operator Liability as Defined in the Bladen Bluffs Regional Surface Water System Water Supply Agreement (John Wessell, General Counsel)

Much like the Kings Bluff Raw Water Pump Station, the Bladen Bluffs Regional Surface Water System (BBRSWS) is owned by the Authority with the operation and maintenance (O&M) of the facility contractually performed by a customer of the Authority. Just as with Brunswick County, the Authority has two separate agreements with Smithfield Farmland as a customer and operator. These two agreements are a Water Supply Agreement and an O&M Agreement. However, unlike the O&M Agreement with Brunswick County, Smithfield's O&M agreement stipulates that as long as it is the Authority's only customer of the BBRSWS, the Authority will pay an annual fee of $1.00 for all operation and maintenance costs of the facility.

Mr. Wessell will review the distinction between owner liability of the Authority and customer/operator liability of Smithfield Farmland as defined in the Water Supply Agreement.

Action Requested: Presented as information

SECTION 1 - INTRODUCTION

1.1 FACILITIES

The Lower Cape Fear Water and Sewer Authority is a regional organization with sponsoring members that are comprised of Bladen, Brunswick, Columbus, New Hanover, and Pender Counties, as well as the City of Wilmington. The Authority was created to aid development of a water supply system for the sponsoring member governments, which are primarily located in southeastern North Carolina. The Authority currently owns and operates, in partnership with Smithfield Farmland Corporation, the Bladen Bluffs Regional Surface Water Treatment Facility (BBRSWTF), which is supplied raw water from the Cape Fear River. The facility is a 6.0 Million Gallon per Day (MGD) drinking water facility located near the Town of Tarheel in Bladen County, approximately opposite of the Smithfield Farmland Corporation Facility on NC Highway 87 (See ***Figure 1 – Vicinity Map***). Construction was completed March 1, 2012 and the facility was placed into service on April 1, 2012. Primary components of the facility include (See ***Figure 2 – General Site Plan***):

- 30 MGD Raw Water Intake
- 12 MGD (Current Maximum Pumping Capacity) Raw Water Pumping Station & Raw Water Pipeline. The Raw Water Pumping Station includes two (2) 6 MGD pumps, with a slot for a third future pump.
- Four (4) Filters
- Flocculation and Settling Tanks
- Two (2) 1.7 MG Residuals Basins
- Two (2) Standby Generators
- Four (4) Granular Activated Carbon Tanks
- Chemical Building
- Administration Building
- Two (2) 2 MGD Clearwells (Owned by Smithfield Farmland Corporation)

The Bladen Bluffs facility currently only supplies treated water to Smithfield Farmland Corporation, as there are currently no other customers served by BBRSWTF.

1.2 BASIS OF ANNUAL INSPECTION & SCOPE OF WORK

A condition of the authorizing Bond Order requires the following shall be provided by an independent engineering firm:

- Inspect the project at least once each fiscal year
- Prepare a report that sets forth:
  - ✓Whether the properties or facilities have been maintained in good repair, working order, and condition
  - ✓Whether they have been operated efficiently and economically
- Recommendations with respect to maintenance, repair, and operation of the facility during the ensuing Fiscal Year, and an estimate of the appropriations that should be made for such purposes
- The insurance to be carried for the facility per the bond requirements
- Extensions, improvements, renewals, and replacements that should be made during the ensuing fiscal year
- Any necessary or advisable revisions to the service charges

The results and findings of this annual inspection are summarized in the following sections of this report. The FY 2017-2018 inspection of the Authority's facilities was conducted in May 2018.

1.3 OPERATING ARRANGEMENTS

The Authority maintains limited full-time staff, consisting of an Executive Director and an Administrative Assistant, for the administration of the Authority's programs and the coordination of water supply activities in the Region. The Authority contracts for operations and maintenance of BBRSWTF with Smithfield Farmland Corporation. Smithfield Farmland Corporation provides the personnel and resources to operate and maintain the Authority's

water treatment facility and also administers outside maintenance contracts as needed for effective operation of the system. Thus, Smithfield Farmland Corporation is designated the "Contract Operator" of the system. Currently, BBRSWTF generally operates on a 5-day work week (Sunday through Thursday) and the treatment process is in shut-down mode over most weekends. This schedule varies depending upon the production requirements of the Smithfield Farmland Corporation facility.

New Business (NB1)	Lower Cape Fear Water & Sewer Authority

AGENDA ITEM

To: CHAIRMAN SNEEDEN AND BOARD MEMBERS

From: DON BETZ, EXECUTIVE DIRECTOR

Date: June 11, 2018

Re: Resolution Accepting the *Lower Cape Fear Water & Sewer Authority Kings Bluff Regional Raw Water Supply Facilities FY 2017-2018 Annual Inspection Report* (Tony Boahn, P.E., McKim & Creed)

The existing Standard Provisions for Water Supply Agreements with all customers and the existing Bond Order requires an annual inspection of all the facilities associated with the pump station by a qualified engineer to report on readiness, identify any deficiencies and make recommended repairs and capital improvements. A copy of the report will be provided to Brunswick County Utilities as the operator of the facility.

Enclosed is an excerpt of the report providing a summary of the inspection items.

Mr. Boahn will present an overview of the complete report.

Action Requested: Motion to approve/disapprove

Resolution Accepting the *Lower Cape Fear Water & Sewer Authority Kings Bluff Regional Raw Water Supply Facilities FY 2017-2018 Annual Inspection Report*

Resolution Accepting the Lower Cape Fear Water & Sewer Authority Kings Bluff Regional Raw Water Supply Facilities FY 2017-2018 Annual Inspection Report

Whereas, the Lower Cape Fear Water & Sewer Authority, (the Authority) provides within its Standard Provisions for Water Supply Agreements with all customers in Article II, Section 2.5 entitled Inspection of the System, and which states, in part, "As required by any applicable Bond Order, the Authority shall cause a consulting engineer to inspect the System at least once every 12 months and to submit to the Authority a report identifying any operational, maintenance, or repair problems of the Water System and setting forth for the next ensuing 12-month period his recommendations as to any revisions that should be made in the methods of operation or maintenance of the Water system and any repairs that must be made to maintain the Water system in such period;" and

Whereas, the existing Bond Order Series 2010 Section 7.06, Consulting Engineer reads, in part, "the Authority covenants that it will, for the purpose of carrying out the duties imposed on the Consulting Engineers by this Bond Order, employ an independent engineer or engineering firm or corporation as Consulting Engineers. The Authority further covenants that it will cause the Consulting Engineers to make an inspection of the System at least once each Fiscal Year and promptly submit to the Authority Executive Director a report setting forth (a) their findings whether the properties of the System have been maintained in good repair, working order and condition and whether they have been operated efficiently and economically and (b) their recommendations respecting the proper maintenance, repair and operation of the System during the ensuing Fiscal Year"; and

Whereas, in accordance with the above references and the annual operating budget for FY 2017-2018, the Authority's consulting engineer has provided the Annual Inspection Report with recommendations for repairs or normal maintenance items; and

Whereas, the Authority budgets on an annual basis appropriations for the operation and maintenance of the Kings Bluff Raw Water System with Brunswick County Utilities under a long term Operation and Maintenance Agreement.

Now Therefore Be It Resolved, that the Chairman and Board of Directors for the Authority, accepts the *Lower Cape Fear Water & Sewer Authority Kings Bluff Regional Raw Water Supply Facilities FY 2017-2018 Annual Inspection Report.*

This Resolution Adopted this 11th day of June, 2018.

_____

Larry Sneeden, Chairman

ATTEST:

_____

Al Milliken, Secretary

Lower Cape Fear Water & Sewer Authority

Kings Bluff Regional Raw Water Supply Facilities

FY 2017-2018 Annual Inspection Report

Kings Bluff Raw Water Pump Station

Interim Raw Water Booster Pump Station

Prepared by

McKIM&CREED

243 North Front Street
Wilmington North Carolina
F-1222

May 2018

NORTH CAROLINA PROFESSIONAL SEAL 025512 ENGINEER ANTHONY W. BOAHN

5-23-18

SECTION 6 - SUMMARY

6.1 READINESS

The Authority's Regional Water Supply System, consisting of the Kings Bluff Pumping Station, Interim Booster Pumping Station, standby generators, pipelines, metering vaults and the 3 MG raw water storage reservoir is in good condition and sufficient state of readiness. The facilities have been well maintained and are fully capable of providing a high level of service to its customers.

6.2 MAJOR CAPITAL IMPROVEMENTS

The Authority is currently working towards a 3-phase implementation to upgrade and expand the Kings Bluff Raw Water System, which is generally described as follows:

- Phase I – Comprehensive upgrade and expansion of the Kings Bluff raw water pumping facility, completed in 2009, as previously described in this report.
- Phase II – 60-inch diameter intake pipeline and three (3) 27.5 MGD intake screens with air backwash system, completed in December 2010, as previously described in this report.
- Phase III This phase involves construction of a future parallel 14 mile raw water transmission main from the Kings Bluff pumping facility to the 3 MG ground reservoir. As of the date of this report the Authority, in partnership with Cape Fear Public Utility Authority and Brunswick County, are moving forward with design and permitting of the project. Design services began in July 2017 and the project is anticipated to be ready for formal bidding in the summer of 2019.

Interim Booster Pump Station

As previously noted in Section 1.1 of this report, the Authority completed construction of the Interim Booster Pump Station (IBS), located at the 3 MG ground tank site, in June of 2013. The

IBS provides a capacity of 29.1 MGD as well as increased pressures to customers on the US Highway 421 portion of the system, which are Pender County, Invista, Praxair, and CFPUA.

As previously noted in this report, the Authority is conducting a cursory evaluation of alternatives to provide a covered structure at the interim booster pump station site to protect it from freezing and sun damage. At the time of this report, the evaluation has not been completed; however, preliminary evaluations indicate that a structure would be advantageous to protect the assets at this site. If approved by the Board of Directors, a capital expenditure would be necessary to make the necessary improvements. It is anticipated that a presentation of the evaluation will be made to the Board of Directors at the June 2018 meeting.

SUMMARY OF RECOMMENDED ACTION ITEMS

Items identified in this report that requires attention or corrective actions are summarized as follows and also detailed in the enclosed appendices. Items with a **(New)** designation are items that were observed during the current year inspection and all others are items that remain from the previous year inspection findings:

Kings Bluff Pump Station Facility, Raw Water Intakes & Air Backwash Systems

1. Continue to monitor bearing temperatures for all raw water pumps.
2. Investigate master metering inaccuracies at the Kings Bluff Pump Station.
3. Monitor storage containment area in pump building for leaks during rain events.
4. Repair broken hand wheel operators on exterior valves.
5. Continue to maintain warning signage for the intake screens in the Cape Fear River and ensure that it is in readable and viewable condition.
6. **(New)** Paint light duty generator frame
7. **(New)** Replace broken catch basin grate in parking lot.
8. **(New)** Replace broken deck boards and handrails on pier leading to air backwash buildings.

9. **(New)** Evaluate older air backwash building for structural repairs due to visible signs of rot on exterior walls.
10. **(New)** Clean both backwash building to remove flood debris and bugs.
11. Repaint surge tank piping mounted to pump station exterior wall.
12. Recommend yearly painting of 1,000 gallon surge air tanks
13. **(New)** Continue to monitor filters on incoming well water and replace as needed. Consider testing of well water to ensure the water is suitable for potable use.

Generator Building

1. **(New)** Evaluate generator building for replacement of failing insulation in conjunction with possible addition of exhaust fans to improve conditions in the generator building.
2. **(New)** Diesel tank interstitial leak sensor is inoperable on west tank. Tank is currently not in use; however, if placed back into service the leak sensor should be repaired.

3 Million Gallon Ground Reservoir & Interim Booster Pump Station

1. Calcification present on exterior tank wall. O&M staff should continue to monitor the tank walls for any new cracks or leaks.
2. Recommend coordinating annual test of Interim Booster PS with CFPUA and Brunswick County.
3. Recommend development of Standard Operating Procedure for testing and maintaining the Interim Booster PS.
4. **(New)** Recommend consideration of shelter or structure to improve protection of the station from freezing and sun damage (evaluation currently underway at the time of this report).

Raw Water Main System

1. Mow/Clear overgrown areas along pipeline route.
2. **(New)** Continue to monitor and evaluate need to paint manhole ring and covers and concrete flat-tops for manholes, valves, blow offs where required.
3. Repaint, replace or upgrade PVC pole markers.
4. Exercise all valves and blow-offs annually.
5. Add bollards to protect manhole within "The Bluffs" development access drive.
6. Evaluate and repair the damaged pipe joint in the ARV manhole near Phelps Truck Sales on US-421.
7. Periodically operate the emergency connection at the Dak Industries (former) site.
8. **(New)** Ensure that valves and ARV's can be properly operated with current valve box configuration. Noted that some valve boxes appeared to be out of plumb and could create issues with operations.
9. **(New)** Repair 1" PVC discharge pipe on sump pump at the Northwest WTP meter vault

END OF REPORT

Executive Director's Report (EDR)	Lower Cape Fear Water & Sewer Authority

AGENDA ITEM

To: CHAIRMAN SNEEDEN AND BOARD MEMBERS

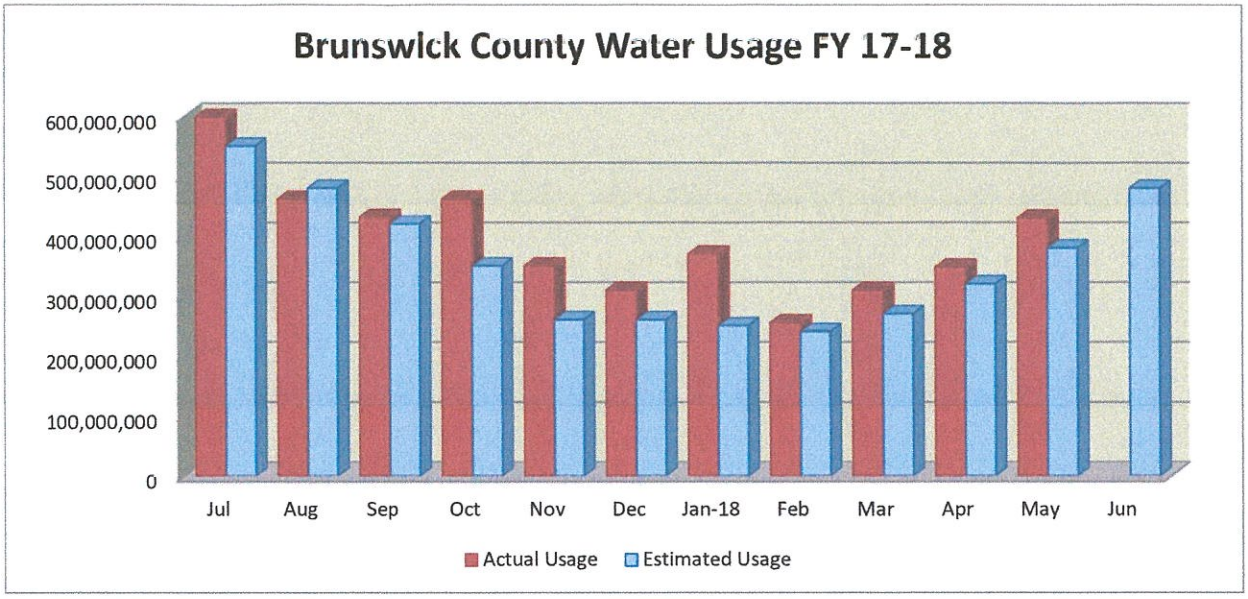
From: DON BETZ, EXECUTIVE DIRECTOR

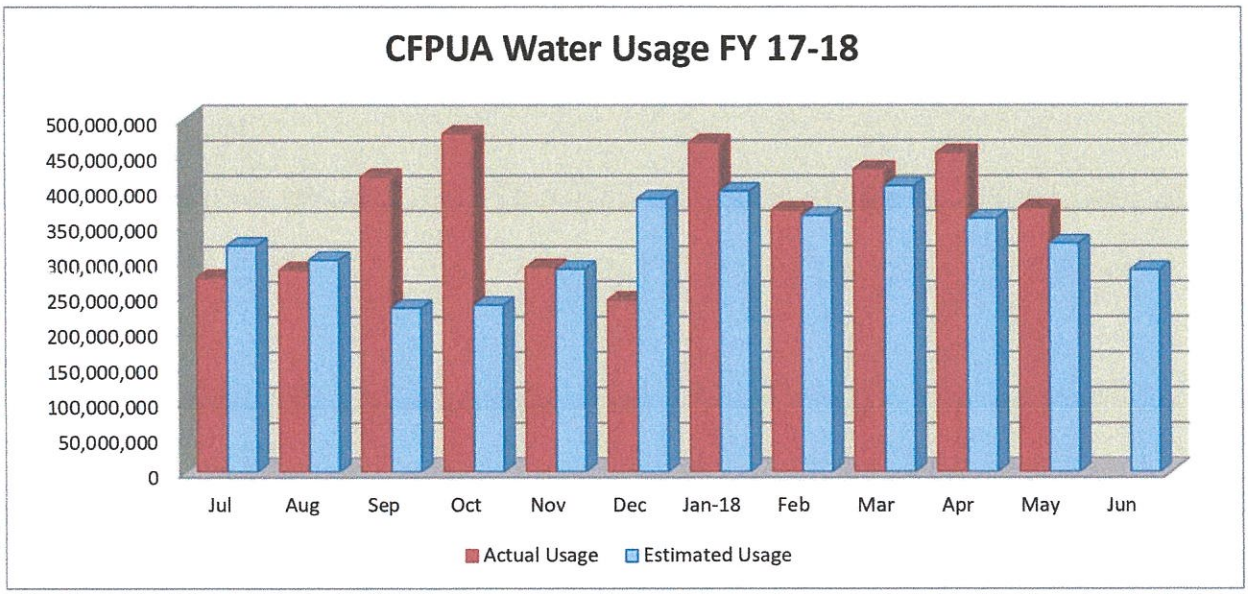
Date: June 11, 2018

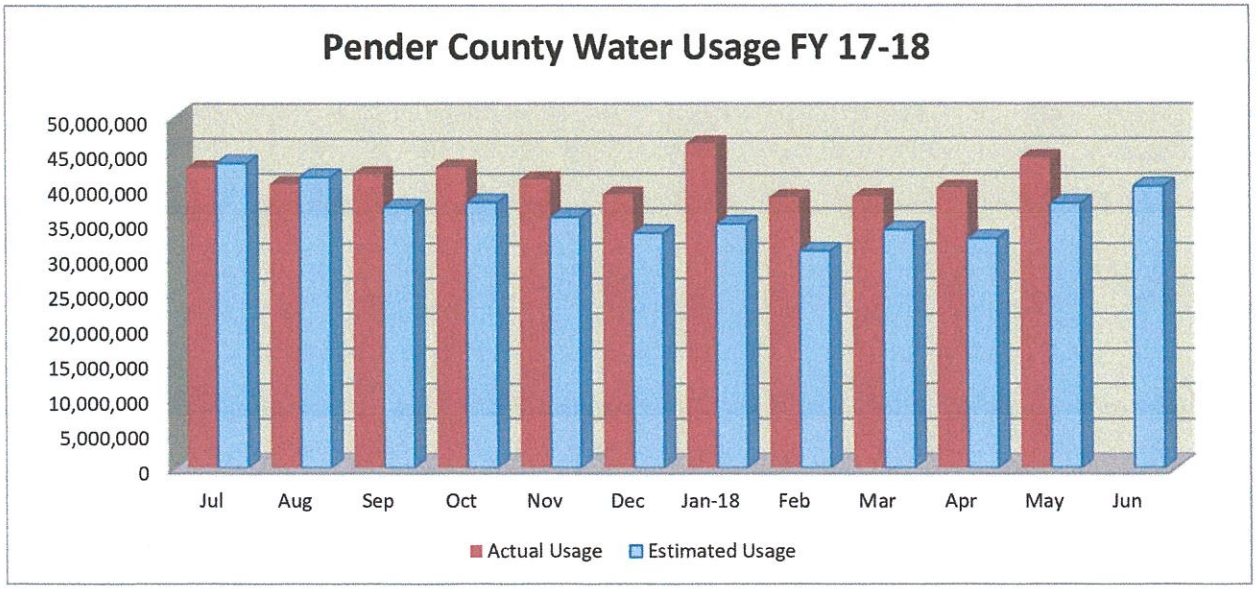
Re: Executive Director's Report

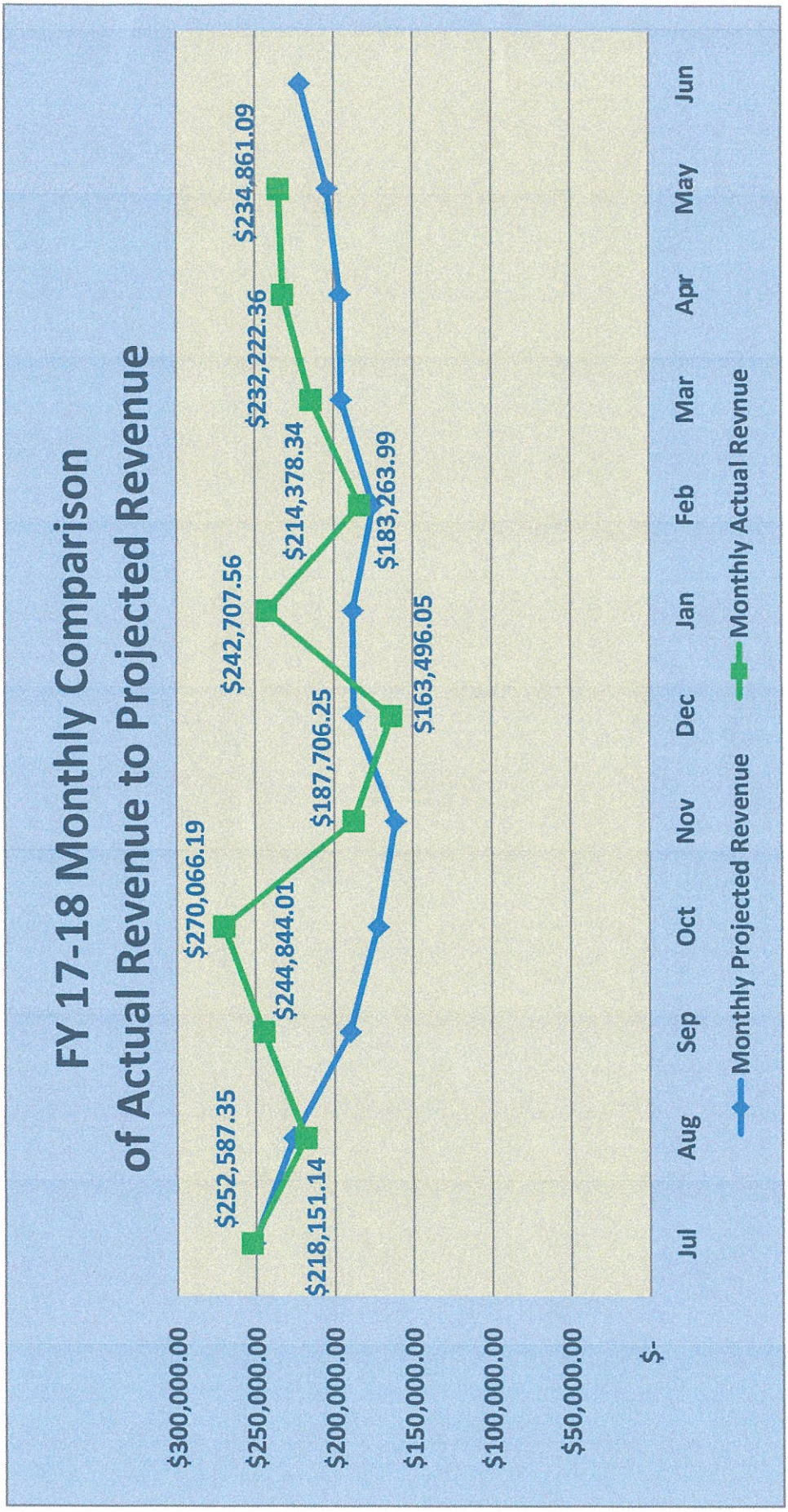
EDR1- Customers' Water Usage Report as of May 31, 2018

Action Requested: For information purposes only


Brunswick County Water Usage FY 17-18
600,000,000
500,000,000
400,000,000
300,000,000
200,000,000
100,000,000
0
Jul
Aug
Sep
Oct
Nov
Dec
Jan-18
Feb
Mar
Apr
May
Jun
Actual Usage
Estimated Usage


CFPUA Water Usage FY 17-18
500,000,000
450,000,000
400,000,000
350,000,000
300,000,000
250,000,000
200,000,000
150,000,000
100,000,000
50,000,000
0
Jul
Aug
Sep
Oct
Nov
Dec
Jan-18
Feb
Mar
Apr
May
Jun
Actual Usage
Estimated Usage


Pender County Water Usage FY 17-18
50,000,000
45,000,000
40,000,000
35,000,000
30,000,000
25,000,000
20,000,000
15,000,000
10,000,000
5,000,000
0
Jul
Aug
Sep
Oct
Nov
Dec
Jan-18
Feb
Mar
Apr
May
Jun
Actual Usage
Estimated Usage


FY 17-18 Monthly Comparison
of Actual Revenue to Projected Revenue
$300,000.00
$250,000.00
$200,000.00
$150,000.00
$100,000.00
$50,000.00
$-
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
$252,587.35
$270,066.19
$244,844.01
$218,151.14
$242,707.56
$187,706.25
$214,378.34
$163,496.05
$232,222.36
$183,263.99
$234,861.09
Monthly Projected Revenue
Monthly Actual Revnue