

PUBLIC WORKS COMMISSION  
MEETING OF WEDNESDAY, NOVEMBER 8, 2017  
8:30 A.M.

Present: Wade R. Fowler, Jr., Chairman  
D. Ralph Huff, III, Vice-Chairman  
Darsweil L. Rogers, Secretary  
Evelyn O. Shaw, Treasurer

Others Present: David W. Trego, CEO/General Manager  
Jay Reinstein, Assistant City Manager  
Jim Arp, City Council Liaison (VIA TELECONFERENCE)  
Melissa Adams, Hope Mills Town Manager  
Jerry Newton, Development Services Director (City)  
PWC Staff

Absent: Michael Boose, Cumberland County Liaison  
Media

REGULAR BUSINESS

Chairman Fowler called the meeting of Wednesday, November 8, 2017, to order.

APPROVAL OF AGENDA

Upon motion by Commissioner Rogers and seconded by Commissioner Shaw, the agenda was unanimously approved.

CONSENT ITEMS

Upon motion by Commissioner Shaw and seconded by Commissioner Rogers, the Consent Items were unanimously approved.

- A. Approve Minutes of meeting of October 25, 2017
- B. Approve Resolution No. PWC2017.12 authorizing use of the design-build contracting method for the Bramblegate Road and Clifton Drive Bank Stabilization project.

COMMENTS: In 2013, the General Assembly enacted legislation authorizing the use of new contracting methods for public construction projects, one of which is design-build. Design-build is an integrated approach to a construction project that delivers both design

(architectural or engineering) and construction services under one contract with a single point of responsibility. Selection of the design-build team is made via the “qualifications-based” selection method outlined in G.S. 143-64.31.

- C. Approve Resolution No. PWC2017.13 allowing the CEO and General Manager To Make Certain Information Confidential Consistent with North Carolina General Statutes Section 133-33

END OF CONSENT

Mr. Jay Reinstein, Assistant City Manager, introduced Mr. Jerry Newton. He is the new Director of Development Services for the City of Fayetteville, reporting to Mr. Reinstein. Mr. Newton will oversee Building Inspection, Planning and Zoning. He comes to the City with over 30 years of experience.

#### FISCAL YEAR 2017 SPEND ANALYSIS

Presented by: Mark Cannady, Procurement Supervisor

Mr. Trego, CEO/GM stated the Commission has requested a detailed analysis of PWC’s spending. He stated when we set goals we need the macro and micro data behind it to make smart decisions. He asked Mark Cannady to pull together data based on the fiscal 2017 results. Mark has done this and has done an excellent job. Mr. Trego stated Mark can also create more detailed reports if needed.

Mark Cannady, PWC Procurement Supervisor stated one of our strategic items for the last fiscal year was to improve vendor capacity. He stated we wanted to quantify what we are currently spending locally to determine deficiencies in local spend expectations.

Mr. Cannady, also stated PWC wanted to relay the information that is in the spend analysis to the community to show insight into our contracting and segment within the contracting community. If they wanted to enhance, expand or build capacity in those areas, we would have the data for them.

Mr. Cannady stated he extracted the raw data from the Oracle Business Intelligence Module and the Procurement Card provider. He also validated the data to ensure it was correct. He stated he went through a cleansing process (scrubbing) where filters were applied to the data. He also enhanced the data, to make it better to interpret. He stated he is now at the last stage which is reporting and then determining the direction the Commission wants to take.

Mr. Cannady reported the following Overall Spend.

FUND	FUND NAME	SPEND	SPEND %
001	ELECTRIC UTILITY FUND	\$ 189,479,058	72%
002	WATER RESOURCES UTILITY FUND	\$ 29,952,747	11%

045	SERIES 2014 WATER/WASTEWATER CPF	\$ 9,538,347	4%
054	SERIES 2016 WATER AND WASTEWATER CPF	\$ 8,774,177	3%
049	ANNEXATION PHASE V - AREAS 16 & 17 CPF	\$ 7,793,836	3%
055	FLEET MAINT INTERNAL SVC FND	\$ 5,328,661	2%
044	SERIES 2014 WATER CONNECT CPF	\$ 2,704,410	1%
003	METER FUND	\$ 2,391,655	1%
052	ANNEXATION PHASE V - AREAS 18 & 19 CPF	\$ 1,590,093	1%
043	SERIES 2014 ELECTRIC CONNECT CPF	\$ 1,441,907	1%
048	2013 PO HOFFER PHASE 1 STATE REVOLVING LOAN CPF	\$ 1,043,201	<1%
053	NCDOT CAPITAL PROJECT FUND	\$ 531,832	<1%
046	SERIES 2014 LED LIGHTING CPR	\$ 546,581	<1%
056	ANNEXATION PHASE V, AREA 20 AND 21 CPF	\$ 522,003	<1%
037	ANNEXATION PHASE V AREAS 8-13	\$ 215,000	<1%
000	NO SPECIFIED FUND	\$ 6.00	<1%
TOTAL		\$ 261,853,514	100%

He stated staff analyzed over 40,000 invoices. He noted the majority of spending is through the Electric Utility Fund which pays Duke Energy Progress for our electric usage. He stated the first filter was to deduct non procurement related expenditures. Below reflects the deductions:

Activity Name	Spend
PROGRESS ENERGY	\$ 134,992,809
CITY OF FAYETTEVILLE	\$ 12,653,972
HOPE MILLS REFUNDS	\$ 5,511,283
MISC. EXPENSES*	\$ 4,828,347
PROCUREMENT CARD	\$ 2,264,164
ELECTRIC TO WATER TRANSFER	\$ 1,816,924
INSURANCE EXPENSE	\$ 1,769,966
TAXES	\$ 1,710,552
PRINCIPAL PAYMENTS	\$ 1,566,733
CUMBERLAND COUNTY	\$ 1,260,992
GARNISHMENTS PAID	\$ 945,107
FT BRAGG WATER CONTRACT	\$ 939,409
OTHER ACCTS PAYABLE-CURRENT	\$ 624,394
DEPOSIT REFUNDS PAYABLE	\$ 552,104
PAID INTEREST	\$ 526,604
DEPT. OF ENERGY	\$ 516,014
CLAIMS	\$ 401,659

FINAL BILL CR BALANCE PAYABLE	\$ 362,720
BILL CREDITS	\$ 357,547
RECS	\$ 262,380
NCDOT PROJECTS	\$ 259,428
TOTAL	\$ 174,483,108

Mr. Cannady stated once the \$174,483,108 was deducted from the gross, the balance was about \$88M which reflects the potential contracting spending for FY2017. He stated the majority was coded as Contractual Services (projects such as PO Hoffer expansion, water main rehab). He also noted soft services are categorized in Facilities & Grounds Maintenance. He stated the entire list entails over 150 categories. The chart below details where the dollars were spent:

COST TYPE	SPEND
CONTRACTUAL SERVICES	\$ 47,119,669
PURCHASES / ADDITIONS	\$ 8,831,301
INVENTORY	\$ 7,861,078
EQUIPMENT & REPAIR PARTS	\$ 4,480,724
MATERIALS & SUPPLIES	\$ 2,742,698
CHEMICALS (NON INVENTORY ISSUED)	\$ 2,311,245
FACILITIES & GROUNDS MAINTENANCE	\$ 2,022,758
COMPUTER SYSTEM CONTRACTS	\$ 1,816,885
MANAGEMENT CONSULTING	\$ 1,361,189
METERS - WATER - DIRECT PURCHASE	\$ 1,084,210
FUEL GAS & DIESEL	\$ 986,134
METERS - ELECTRIC	\$ 769,927
SLUDGE REMOVAL	\$ 752,019
TEMPORARY PERSONNEL FEES	\$ 725,623
POSTAGE/PRINT/STATIONERY	\$ 714,961
TELEPHONE EXPENSE	\$ 616,934
COMMUNITY RELATIONS	\$ 559,708
MAIN AGREEMENTS/NON-COMPUTER	\$ 532,455
CONTRACT LABOR	\$ 366,433
SECURITY SERVICES	\$ 315,484

Mr. Cannady stated last year we utilized approximately 820 vendors. Over 200 were local vendors. He detailed the top 25 vendors below. He noted State Utility Contractors worked on two annexation projects last year. The first Fayetteville (local) vendor on the list is Billy Bill Grading. He anticipates they will move up into the top 5 because they have recently

won a contract. He stated we will use this analysis as a baseline for next year. Discussion ensued.

VENDOR NAME	CITY	SPEND
STATE UTILITY CONTRACTORS INC.	Monroe	\$ 5,509,465
INSITUFORM TECHNOLOGIES, INC.	Atlanta	\$ 4,673,754
M.B. KAHN CONSTRUCTION CO. INC	Columbia	\$ 4,278,444
HEITKAMP, INC.	Watertown	\$ 4,198,892
SENSUS USA	Pittsburgh	\$ 3,773,849
T.A. LOVING CO. INC.	Goldsboro	\$ 3,505,717
BILLY BILL GRADING	Fayetteville	\$ 2,914,752
SANDY'S HAULING & BACKHOE SVC	Roseboro	\$ 2,736,204
PIKE ELECTRIC, LLC	Memphis	\$ 2,374,094
MYTHICS, INC.	Virginia Beach	\$ 1,666,527
ANIXTER INTERNATIONAL INC.	Dallas	\$ 1,616,204
WESCO DISTRIBUTION, INC.	Fayetteville	\$ 1,430,282
COASTAL POWER AND ELECTRIC CO.	Currie	\$ 1,297,847
MECHANICAL JOBBERS MARKETING	Lithonia	\$ 1,227,598
STUART C IRBY CO	Rocky Mount	\$ 1,144,604
PRISM CONTRACTORS, INC.	Williamsburg	\$ 1,039,613
LEE ELECTRICAL CONSTRUCTION	Aberdeen	\$ 969,959
WK DICKSON & CO., INC.	Charlotte	\$ 967,793
HD SUPPLY WATERWORKS, LTD.	Fayetteville	\$ 841,281
LOOKS GREAT SERVICES OF MS, INC.	Columbia	\$ 836,866
BTS TIRE & WHEEL DISTRIBUTORS	Fayetteville	\$ 816,888
EMTEC CONSULTING SERVICES, LLC	Chicago	\$ 805,411
SYNAGRO CENTRAL, LLC	Chicago	\$ 775,793
ERMCO	Dyersburg	\$ 731,340
MOORMAN, KIZER & REITZEL, INC.	Fayetteville	\$ 702,136

Commissioner Fowler stated a number of those on the list which are outside the city hire locally though it is not reflected on the list. Mr. Cannady affirmed stating staff researched and added back to our local spend figures when we determined a contractor hired locally or spent locally. He stated he will show this information on a subsequent slide. Mr. Cannady stated staff will place an affidavit within our bid packets (similar to SDBE participation) to assist us in tracking what is local.

Commissioner Rogers noted five of the twenty five vendors are local. Mr. Cannady stated there is a lot of participation. He noted there are only 2 water and sewer contractors which actively bid on our jobs, though there are 17 certified as general contractors within Cumberland County. He stated we will see if we can increase the participation. Commissioner Rogers asked to what extent we have been able to identify who is local that might be a competitor. Mr. Cannady responded we went through the General Contracting Board to identify who is local and qualified. We called these companies to find out why

they are not participating. He gave examples. He stated for some it is a business case decision.

Commissioner Huff asked if there are local firms that do what Lee Electrical Construction does. Mr. Cannady stated there are several; we are doing work with one now, but some have chosen thus far not to bid on projects. Discussion ensued.

Council Member Arp asked about the small company contract opportunities. He asked about the period of performance. What time period do we consider? Mr. Cannady responded it is an ongoing annual contract, with option to renew. If it is project based it may expand over several years. Discussion ensued.

Mr. Cannady stated the second component of the analysis was the Procurement Card expenditures. He stated staff pulled all the transactions for the year, which totaled over 16,000 transactions. We had over \$2.6M in these transactions. \$1.9M was spent locally. He stated we utilize procurement cards a lot in our Fleet Department.

Commissioner Shaw asked if the decision to use a P-Card at any particular location is subjective. Mr. Cannady responded yes. There is a limit of \$1,000 per transaction on a procurement card. We also have ways to pay the financial institution thru our procurement card. He stated only the Procurement Department can purchase tools. Mr. Miller stated a lot of the vendors give a rebate if we pay through a procurement card. Additional discussion ensued.

Commissioner Shaw asked “where is the red flag” for the Procurement Department if the same vendor is always used. Mr. Cannady stated using analysis such as this will reveal trends. When we see those trends, we check with the card holder. Additional discussion ensued.

VENDOR NAME	P-CARD LOCAL SPEND	DEPARTMENT
OTHER LOCAL SPEND* (<\$20,000)	\$815,208	Misc.
NAPA	\$227,376	Fleet
LAFAYETTE FORD	\$164,147	Fleet
GILL SECURITY SYSTEMS, INC.	\$89,202	Facilities
MECHANICAL AND MAINTENANCE	\$54,565	Electrical Construction
FAST SIGNS	\$54,068	Facilities
WATER WORKS SUPPLY	\$52,328	W/R Construction
UP & COMING MAGAZINE	\$44,570	CCR
POWER SWAIN	\$41,013	Fleet
301 ENVIRONMENTAL CLEAN UP	\$35,390	Environmental
QUALITY CONCRETE	\$34,490	Misc.
BILL'S MOBILE CRANE SERVICE	\$34,409	Misc.
APPLIED INDUSTRIAL TECHNOLOGIES	\$34,018	Misc.
TRANSOURCE	\$33,882	Fleet

HOPE MILLS SAW & MOWER	\$33,226	Misc.
D&J MOTOR COMPANY	\$33,226	Misc.
CONSOLIDATED ELECTRICAL DISTRIBUTION	\$32,631	Electrical Construction
H&H FREIGHTLINER	\$31,047	Fleet
HUBBARD KITCHEN AND BATH	\$27,915	W/R Construction
WILLIAMS OFFICE SUPPLY	\$27,756	Misc.
NATIONWIDE TRANSMISSION	\$26,277	Fleet
O'REILLY AUTO PARTS	\$24,163	Fleet
GREGORY POOLE EQUIPMENT	\$20,809	Fleet
<b>TOTAL</b>	<b>\$1,971,716</b>	

Ms. Gloria Wrench, Procurement Manager stated staff has communicated to the departments what our expectations are, as far as getting multiple quotes and not going to the same vendor all the time. We are also instituting a requisition checklist. We have communicated these new requirements to the Chief Officer level and their direct reports. We will also conduct training for others. She stated this was the last fiscal year, but hopefully next year you will see a change. Discussion ensued.

Mr. Cannady then summarized the spending analysis. He noted the available local spend is \$45,442,802. This is the amount that we should be able to spend in the region. He stated we actually spent \$20,495,447.00.

OVERALL INVOICED SPEND	\$ 261,853,513.00
NON-PROCUREMENT DEDUCTIONS	\$ (174,483,108.00)
TOTAL NON-AVAILABLE LOCAL SUPPLIERS/CONTRACTORS	\$ (44,551,767.00)
PROCUREMENT CARD ADJUSTMENT	\$ 2,624,164.00
TOTAL LOCAL AVAILABLE SPEND	\$ 45,442,802.00

TOTAL LOCAL SPEND	\$ 20,495,447.00
TOTAL NON-LOCAL SPEND	\$ 24,947,356.00
TOTAL LOCAL AVAILABLE SPEND	\$ 45,442,802.00
LOCAL SPEND	\$ 15,864,569.00
TOTAL NON-LOCAL PAID TO LOCAL SUBCONTRACTORS/SUPPLIERS	\$ 2,659,161.00
TOTAL LOCAL PROCUREMENT CARD SPEND	\$ 1,971,717.00

TOTAL LOCAL SPEND	\$ 20,495,447.00
NON-LOCAL SPEND	\$ 26,954,069.00
TOTAL NON-LOCAL PAID TO LOCAL SUBCONTRACTORS/SUPPLIERS	\$ (2,659,161.00)
PROCUREMENT CARD SPEND – NON-LOCAL	\$ 652,448.00
TOTAL NON-LOCAL SPEND	\$ 24,947,356.00

Mr. Cannady stated he is confident our local utilization is approximately 45%. He stated it is our baseline for next year and we hope to exceed that number.

Mr. Trego stated what is very obvious in this number is we are doing a decent job where there is local competition. But for almost half of the dollars we spend, there is no local competition. He stated that is a telling number. Some of the businesses have left and for some of the businesses we will not have a local competitor. There are a lot of manufacturer reps that have territories. They may have an office in Charlotte that includes the Fayetteville area and they will never have a local office in Fayetteville.

He stated we need to further parse out the \$45M and take a look at the non-local and determine how much of that figure will never be local. Further discussion ensued.

Commission and staff discussed the Raeford Road project and possible local participation in the project.

Mr. Cannady stated when suppliers come in and stay in our hotels it also boosts our economy but we are only tracking contract spend.

Mr. Trego stated we are concentrating on the MSA which is a two county area. But if you look at the list regionally with the surrounding counties the percentage goes up to 60%. From the list of leading non-local contractors some of them are regional. Discussion ensued regarding the definition of local and non-local.

Mr. Cannady then focused on the following slide. He stated these are the segments of work if vendors wanted to expand their businesses they could consider. He noted PWC has contracted to purchase transformers from a firm in Hoke County and the Connect project has ended.

### Non-Local Supplier/Contractor Spend Categories

Supplier/Contractor Type	Spend
WATER/SEWER/SLUDGE CONTRACTORS	\$ 17,965,000



ELECTRICAL SERVICES CONTRACTORS/SUPPLIERS	\$ 9,316,886
INFORMATION SYSTEMS RENEWALS/CONSULTANTS	\$ 6,165,517
CONNECT PROJECT	\$ 4,308,097
WATER/SEWER CHEMICAL SUPPLIERS	\$ 4,201,503
FLEET REPAIR/SUPPLIERS	\$ 1,666,661

Commissioner Shaw asked if there has been any consideration of talking to the staff at Fayetteville Tech in an effort to add to their curriculum some of these service expertise classes whereby these companies can develop employees to become experts in these fields. She mentioned the work Mr. Russell has done in going to Nash County Community College to recruit linemen because there were none here. He then went to Fayetteville Tech to request they offer lineman classes.

Commissioner Rogers responded. He stated the committee which has been formed (Building Small/Local Business Capacity) which includes Hope Mills, Spring Lake, The School Board, Cape Fear Valley, City of Fayetteville, Cumberland County and PWC, and attending those meetings is Teddy Warner from the EDC. He stated the effective interaction with FTCC is when the EDC (Economic Development Corporation) identifies the need with existing or new industry for training, they approach FTCC and say, here is a need we have identified. FTCC cannot offer to just one person, but if there is a group who has the need and an ongoing need, they will put it in place. FTCC simply needs to see the volume. Commissioner Rogers stated it is through the collective conversation where these needs and the remedies are identified.

He stated David Trego presented the spend analysis to his committee. He hopes that all the other parties will do a similar analysis and then parse it back to see where the opportunity is. Additional discussion ensued.

Commissioner Rogers thanked Mr. Cannady and the Procurement team for a great presentation. He also thanked Commissioner Shaw for her insight and knowledge of procurement. She was influential in steering the conversation in the right direction.

Commissioner Rogers stated the committee is proceeding, though it has had some growing pains. He stated they originally wanted to look at all the surrounding counties but there were some voices who were not interested in the expanded view of local; so they have backed it down to Cumberland and Hoke Counties. They are going to move forward and look for ways to create a one-stop opportunity for people to go to one of our websites and click at procurement for all. Additional discussion ensued.

Mr. Trego asked the Commissioners to take a look at the more detailed report. If there is additional information they are looking for, Mark Cannady can research and create the detail they are in need of and they can make informed decisions going forward.

Commissioner Shaw also thanked Mr. Cannady and the Procurement Department. She stated she recognized it was a lot of work. Also a compliment is due to those who put the

information in the system. He would not have been able to access if it was not there. She thanked Mr. Miller (Finance) and the IT Department.

Commissioner Fowler stated it was very good news considering what we were shooting for. Mr. Trego stated the City has a goal of 40% (where available) and we were at 45%, so it is comparable to where the City Council set. He felt good about where we were. Commissioner Shaw stated this needs to be communicated to the greater community. Mr. Trego replied we are now including this information in our standard speech when we go out into the community.

#### UPDATE ON PWC'S CYBER SECURITY PROGRAM

Presented by: Paul Rao, Director of Information Systems

Mr. Paul Rao, Director of Information Systems stated 156 million is the latest number of people affected by the Equifax breach or hack. He stated it is a growing trend and one of The Information Systems Department's strategic goals is to have a cyber-security and a physical security plan to protect sensitive data within PWC.

Power and Utility attacks alone make up for 28% of all cyber-security attacks against industries. (He stated this data may have gone down since the Equifax breach). Within the power and utility, power and water combined account for 47% of all attacks.

Mr. Rao noted there have not been any significant attacks here in the US. But right before Christmas last year, in one area of Ukraine, hackers hacked into the control system, substation data and the call centers. They disabled power to 285,000 consumers. He stated there was no ransom or threat offered, though some forensic evidence points it could have been done by some Russian influencers prior to the Crimea succession that Russia took over. It appeared to be just a threat of what they could do.

Mr. Rao stated though this happened a long way from here, we should not think that it cannot happen here in the U.S. Our systems are protected a little better than theirs but are still vulnerable to these types of threats.

Mr. Rao stated if you look back over the last five to six years, the trend of cyber security incidents reported by federal agencies is growing at almost an exponential scale. He stated since 2005 ransomware attacks have grown.

Mr. Rao stated there has been an increase in the number of threats in the last several years. Hackers will try to infest your system with some type of virus, malware or ransomware, where they hold your data for ransom and unless you pay them you will not be able to retrieve your data. He stated we have had only one ransomware incident in the past 1 ½ years. We were able to retrieve the data without paying the ransom.

Mr. Rao stated hackers use the following tactics to breach your computer:

- 62% of breaches featured hacking
- Over half of breaches included malware (51%)

- 81% of hacking-related breaches leveraged either stolen and/or weak passwords
- 43% were social attacks
- Errors were causal events in 14% of breaches. The same proportion involved privilege misuse
- Physical actions were present in 8% of breaches

Paul Rao stated a good password entails the following: upper case letters; lower case letters; numbers; and symbols. He stated passwords should be nine digits long.

Mr. Rao stated PWC has taken the following measures. We are in a constant repetitive mode of access, defend and prevent. The IS Department has two full-time security analysts. They ran a report which analyzed the last 30 days of emails received at PWC. He stated we received almost 3 million emails and almost 68% were either spam or malicious. We have to block or quarantine them, yet some still are able to get through. They can come through valid websites.

Commissioner Fowler stated he has noticed increased phishing, spam or malicious emails in his personal email account. Commissioner Shaw asked why is it some emails are not received when they come from a known email address. She stated she has had issues with sending and/or receiving emails from the CEO or Clerk. Discussion ensued.

Mr. Rao stated we are in the process of implementing Security Incident & Event Management software. The implementation will be completed by next year. It is an operational dashboard control center purely focused on security incidents. We are able to graphically see various components of our network and where the threats are. It is one place where our security team and network team can go to for security type threats.

Mr. Rao stated as part of the Access Phase, we have contracted with an independent company in North Carolina that focuses on SCADA Security Audits. It accesses the vulnerability of the SCADA systems (both electric and water). He stated the report that came back exposed vulnerabilities and revealed some corrective actions staff can take. He stated staff has completed some tasks and are in the process of completing others, including the firewall between our corporate network and SCADA network. They found a few of the physical servers where the SCADA equipment was located needed enhanced physical security. They are looking at improved access control methods and finally they will evaluate if they can actively monitor the SCADA with the SIEM system as they do with their corporate networks. Mr. Trego stated it was the SCADA system in Ukraine that was hacked.

Mr. Rao stated one of the leading vulnerabilities in any organization is the lack of awareness of its employees of what constitutes suspicious emails; what should they send to IS. The department has instituted a mandatory Online Security Awareness Training. It takes about 1 ½ to 2 hours of an employee's time. It helps to mitigate some threats. IS understands that many times people are not aware of threats, so they are utilizing PWC's most valuable assets (employees) to help protect other assets. Mr. Rao stated training is customized to each department. He stated we will have 100% completion by November 30. As of now, 95% of

employees have completed training. Information Systems is trying to implement the thought process of 'Think before You Click'.

Commissioner Rogers asked how often employees will have to take the training. Mr. Rao stated it is annual. It will begin again in January. Commissioner Rogers also asked if it is part of the Onboarding Process. Mr. Rao stated staff is still evaluating to see if it is viable to make it part of the Onboarding Process. Ms. Fritzen stated we do have a process in place to catch or train the new employees. We did not forget about them.

Mr. Rao stated we found that our Web Portal was vulnerable so we implemented an additional security technique to prevent non-humans from attempting to access the website. We use CAPTCHA. The customer has to type the text as seen on the screen. Computers cannot duplicate it.

He stated we have a lot of contractors that need to dial into our systems in order to support them. They have passwords, but we wanted to enhance the security. We implemented Two Factor Authentication. Once the user enters the password, the system sends a text to the mobile number on file and the user will have to enter that information before access is granted. Discussion ensued.

Mr. Rao stated in summary we have a cyber-security plan and we are in year two of the three year plan. We are constantly in the cycle of accessing threats, defending against them and then taking preventative measures. He stated staff will provide another cyber security update when the Commission requests.

Commissioner Rogers asked where we stand in terms of what Mr. Rao considers best in class in this environment (cyber security). Mr. Rao responded for our size organization and the amount of data and systems we have, he would give us a 7 out of 10. He stated the reasoning for it is many of the items we want to implement require software and technology. We have budgeted for it so it is not a money issue; it tends to be a tech problem in terms of being able to implement the variety of different measures for the threats that are out there.

Mr. Trego stated he believes it is also a time issue. The previous IS Directors were more reactionary when it relates to security. When Paul Rao came to PWC he brought a proactive-ness. We did not begin the assessment until he arrived. Mr. Trego stated we were more in reaction mode. During that time we were implementing our Oracle systems and doing a lot of different things, so he is not criticizing the previous directors. Mr. Rao stated we needed to take a proactive approach. We began later than other firms of our size, so it is an element of time.

Ms. Fritzen stated when she stepped in and began to oversee Information Systems, we were simply checking emails. Seeing what was out there in the industry and having the assessment completed was huge. We were able to then layout a plan. She stated we physically could not do this in a year. We realized we didn't need another staff member but it is how you roll it out. Mr. Trego stated a lot of it is sequential.

Mr. Rao stated we do not have a process in place in the event of a major recovery. He stated when we identify a major threat, we need to identify the process we go through to recover

from the threat; quarantine what has affected us; and get us back up and running. He stated this will be implemented in 2018. Discussion ensued.

Commissioner Rogers stated he is interested in what we will do if something happens to Duke and also how will we handle onboarding new employees.

Council Member Arp stated this is a good discussion and relevant. He stated on the cyber security side most people think passwords are a hassle, but it is critical. He stated the weakest link, other than legacy technology, is your people and their access. In the cyber world that is how people rapidly gain the easiest access (fishing, malware). He asked if we are using a multilayer strategy. Mr. Rao answered yes we are. He stated there are several levels of protection. We are implementing two factor authentications for certain types of access. We have password change policies and enforcement. It is a multilevel approach to cyber security.

Council Member Arp stated having good cyber security, especially for critical infrastructure like PWC is hard to do in-house. Technology is evolving at such a rapid rate. There is a new generation of technology every 18 months or sooner now. He stated having the ability to reach out to someone who has that as their focus and intent is not a bad thing to look at as you develop your long term security and improvement strategy. He also asked about our critical incident response plan. He asked if we have a way to isolate, insulate and deny without disruption of services. Mr. Rao stated no, that is on our plate. We know we are lacking in incidence response plan and it is on target for 2018. Mr. Trego stated at some point when we have more information we will have a closed session.

Commissioner Fowler stated it was an excellent presentation and thanked Mr. Rao.

## GENERAL MANAGER REPORT

### **United Way Campaign for 2018**

Mr. Trego stated we have begun our campaign. We have had the first meeting with the management team and are shooting for 100% participation. He reminded commissioners on last year we had 99.5% participation.

### **Atlantic Coast Pipeline**

Mr. Trego stated the last time he updated the Commission, Governor Cooper required additional level of information on how the pipeline will affect rivers, land and the environment. Since then, the FERC (Federal Energy Regulatory Commission) has issued to them a Certificate of Need. It means FERC has authorized them to build the line. The ACP will still have to go through the states to work out any remaining issues. The biggest hurdle was getting FERC approval. He stated FERC has determined there is a need and what they have planned is a balance between all the different constituencies (the environment, need to get the natural there, how they are constructing and where they are placing it). Therefore they have authorized them to build the line.

## **Missing Man Table**

PWC is part of The Heroes Homecoming in Fayetteville. We are hosting the Missing Man Table. We are one of the 150 businesses in the country who have it and we are very happy to participate in this project.

## **REPORTS AND INFORMATION**

- A. Personnel Report – October 2017
- B. Position Vacancies
- C. Approved Utility Extension Agreement(s):
  - Aldi, (N.C.), LLC – water and/or sewer utility extension and water/sewer service to serve Aldi #104 @ Gillis Hill Road

## **ADJOURNMENT**

There being no further business, upon motion by Commissioner Rogers, seconded by Commissioner Shaw and unanimously approved, the meeting was adjourned at 9:55 a.m.