

LCBPU ANNUAL UPDATE TO LCC

Chris Merz – Superintendent

Michael R. Gooding PE, RLS – CHAIRMAN

Danny Walker – Vice-Chairman

Steve Shelton – Secretary

Mark Bolden Board Member

Brian Watt – Board Member

PURPOSE

Provide the Lincoln County Commission with an update on the financial and operating status of the County's water system. This update follows completion of the audit closing the 2017 fiscal year (June 30 2017).

THE BOARD

- Mike Gooding – Chairman – Term ends – July, 2019
 - BS Civil Engineering, MS Civil Engineer-Public Works
 - Professional Engineer (TN, AL), Registered Land Surveyor (TN)
 - 19 years with US Army Corp of Engineers, Program\Construction Management & Engineering
 - Special Perspective Brought to the Board – Engineering/Construction Management

- Danny Walker – Vice Chairman – Term ends - July, 2019
 - BS, Agriculture
 - American Society of Agronomy-Certified Crops Adviser
 - Volunteer Fire Fighter/Emergency Medical Responder since 1998
 - Special Perspective Brought to the Board – Volunteer Fire Fighter/ Agriculture

- Steve Shelton – Secretary - Term ends - July, 2018
 - BS, Aerospace Technology, MS, Management, MS, Strategic Studies
 - 29 years engineering and program management
 - 25 years Active/Reserve US Army
 - Special Skill Brought to the Board – Financial and Strategic Planning

- Mark Bolden – Term Ends – July, 2020
 - Inspector & New Development Coordinator
 - Serve on the City of Madison technical review committee for utilities
 - Grade 1 water and grade 1C sewer certifications
 - 20 years utility experience; 10 years with City of Madison Water Department
 - Special Perspective Brought to the Board – Deep understanding of public water and sewer system design, installation, and operation

- Brian Watt – Term Ends – July, 2018
 - Past Steel Fabrication Contractor assisting manufacturing companies with industrial maintenance process, logistics and construction
 - Residential and Light Commercial Builder in Lincoln County for 15+ years
 - Special Perspective Brought to the Board – County residential and industrial development

AGENDA

- SYSTEM OVERVIEW
 - Current Status
 - Recent Improvements/Initiatives
 - Strategic Plan
 - FINANCIALS
 - Results of 2017 Audit and Position at close of 2017
 - Recent Initiatives
 - Strategic Plan
 - Scorecard
 - Capital Improvement Plan
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CHAIRMAN'S GUIDANCE TO THE BOARD

Sound financial and engineering decisions to the benefit of our rate payers and the system they own will be the foundation of every action this board will take in the execution of its responsibilities under the auspices of TCA 5-16.

PRIORITIES

- Stop the bleeding! – Leaks are expensive and waste precious resources
 - Upgrade the system – Upgrade mains to proper sizing, replace bad PVC pipe, bring in modern systems
 - Support County Efforts to Attract Industry – Install distribution systems and connect to redundant supply sources to reliably meet volume demands
 - Plan for the future
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SYSTEM OVERVIEW

Current Status – Distribution System

- The Lincoln County water system is made up of two water systems that are not connected. The Highland Rim System and the Mulberry / Belleville system
- 737 miles of pipe in ground – PVC, Galvanized, Iron, much of it poorly bedded
- 9,323 customers – *13 customers per mile!* (Rural water systems typically have 30 or more customers per mile)
- Leaks Remain a Major Focus of the Board
 - Significant drain on financial and water resources
 - 48.5% average water loss for fiscal year ending June 30, 2015
 - 40.2% average water loss for fiscal year ending June 30, 2017
 - Targeting 30% average water loss for fiscal year ending June 30, 2019
- Mains still contain a significant amounts of PVC pipe; (all known segments of galvanized pipe have been replaced) – approach is to replace with Ductile Iron Pipe (DIP) when repairs are of sufficient scale to require it – decades-long effort required
- Main diameters remain undersized in many places – focus on replacement is driven by contribution to leaks, or distribution/transfer flow demands

SYSTEM OVERVIEW

Current Status – Supply System

- LCBPU currently relies on two sources of supply:
 - Highland Rim Aquafer (Taft and Flintville)
 - FPU
- Highland Rim Aquafer:
 - Very low cost of production - \$1.20 / 1000 gallons
 - Highly reliable – No loss of production during the 2016 100-year drought
 - Currently Supporting 100% of the Lincoln No. 1 water system needs (improvement from 87% previously)
 - Likely incapable of meeting large scale industrial needs or residential growth beyond 8 years

(NOTE FYSA: Setting just 90 (1% growth) residential taps per year, disregarding commercial/industrial growth, each requiring a minimum of 7,000 gallons per month, means the utility will need over 5,000,000 additional gallons per month at the 8 year mark, or possibly more if higher growth occurs.)

- FPU
 - Sourcing from Elk river – significantly more expensive to process than aquafer water
 - Currently supporting Mulberry and Belleville portions of the system
 - Declining dependence in support of current customer base as we bring leaks down
 - Ability to support county industrial needs or to augment firefighting needs remains uncertain as evidenced by recent events
 - FPU's stated position is City comes first – option to cut LCBPU off
 - FPU wants to be exclusive provider for LCBPU water for any purchased water
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SYSTEM OVERVIEW

Recent Improvement/Initiatives – Distribution System

- 6-inch Ductile Iron Pipe Replacement – Policy now requires 6-inch minimum for all new mains – DIP required in all cases
- Development Driven Extensions – Policy now requires developer to pay for mains required as a direct result of the development. Board reserves right to contribute or to upgrade sizing if deemed to the benefit of the system. Board exercised this option in support of Runway Center 10-inch main installation).
- Leaks – Down from 50% (2014) to 40% (2017) –
 - 2016 drought's dry conditions helped in identification of hard to find leaks
 - Zone Meter Installation (began in 2016) continues and is proving valuable in finding leaks
- Radio Read Meters – Program begins in 2018 with completion in 2019
 - Increased billing accuracy
 - Ability to notify customers of leaks on their services near real time
 - More Efficient use of labor resources
 - Close to real time identification of unaccounted for flow increases
- Stirring systems installed in tanks for improved water quality

SYSTEM OVERVIEW
Recent Improvement/Initiatives – Supply System

- FPU Contract Discussions Underway
 - Request for contract draft sent to FPU in January 2017
 - Draft contract received from FPU in November 2017
 - As presented, rates and exclusivity clause, coupled with FPU right to truncate services in emergency circumstances are not advantageous to LCPBU (TCA 5-16-107) and cannot be agreed to without violation statute
 - Will continue at non-contract rates while reducing dependency through leak elimination as negotiations continue
- Board directed the superintendent to initiate discussions with Madison County, AL Water System with a view to:
 - Providing a redundant water source(s) to meet emergency needs
 - Enhancing ability to support County Industrial Growth initiative
 Connection allowed under TCA 5-16-107 with County Commission approval

Current Residential Water Rates

FPU Inside City	FPU County	LCBPU
9.46 min for first 748 gal	12.30 min for first 748 gal	22.81 min
5.37/1000 above 748 gal	6.98/1000 above 748 gal	5.05/1000 gal

Current Rates FPU Charges LCBPU

Wells Hill	Belleville	Mulberry
10.13 min first 748 gal	9.83 min first 748 gal	10.13 min first 748 gal
4.42/1000 next 6732 gal	5.51/1000 next 6732 gal	5.91/1000 next 6732 gal
4.53 gal/1000 over 7480 gal	4.13 gal/1000 over 7480 gal	4.53 gal/1000 over 7480 gal

SYSTEM OVERVIEW

Strategic Plan

- Board directed formulation of a 5-year capital improvement plan in 2016
 - Superintendent Merz presented the plan upon initiation of the 2017 Fiscal Year
 - Plan is to stand as a living document
 - Highlights include:
 - Upgrade and recommissioning of Skinem tank
 - Enables reconditioning of other tanks on a rotational basis
 - Supports Industrial Growth plans for runway center
 - Increases overall holding capacity by 500,000 gallons
 - Reconditioning of all tanks (required action)
 - Raising tanks (e.g, Crystal Ridge) to support inter-system transfers
 - Main diameter upgrades to support inter-system transfers (various locations)
 - Installation of SCADA controls across system
 - Purchase of capital equipment
 - Connection to redundant source(s) to meet growth and emergency needs in a cost-effective manner, following models presented by other electrical and water utilities
 - Continual removal and replacement of PVC pipe in the course of repairs to establish a sustainable system in the long term
 - Plan is based on conservative use of financial resources
 - Cash flow focused
 - Emphasis on avoiding new debt
 - Allows for annual increases in assets to support debt reduction and future growth
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FINANCIAL OVERVIEW

Results of 2017 Audit and Position at close of Fiscal Year 2017

- Total Assets = \$30,940,176
- Total Debt = \$6,105,000 2015 Bonds & \$4,580,873 2010 Bond (Paid off August 2017)
- Cash on Hand - \$5,844,084 – (Now \$1.8mil for 180 Days of Operating Capital after August bond payoff)

Recent Initiatives

- 2015 – Restructured Debt to lower interest rate and shorter term
 - \$30,515 in saving on annual basis
 - \$2.2M savings over the life of the note
 - Reduced term of debt by 16 years
- 2016 – Began use of Local Investment Pool to maximize return on cash held on account
- 2016 – Adopted informal policy to rotate auditor every three years to ensure a fresh look at LCBPU finances – rotation will overlap board tenures
- 2017 – Paid off Rural Development Fund (RDF) loan of \$4.58M
 - Savings of \$205,056 per year in annual payments
 - Savings of \$2.7M over the life of the note
 - Eliminated requirement to fund special reserve account at a rate of \$29,000/month

Strategic Plan

- Execute system strategic plan inside cash flow
 - Eliminate current \$6.1M debt by 2025
 - Position the utility to take on strategic capital debt by 2025
 - Hold rates at or below inflation adjusted increases
 - Develop a water treatment plant
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Scorecard

METRIC	TARGET	CURRENT	COMMENTS
Debt per Customer	< \$1000	\$1,128.30	Our debt per customer number is reasonable given the historic 1% growth rate over the past 20 years and low users per mile. Target number would need to increase to support system needs if substantial growth occurred
Debt to Equity Ratio	<.5	.32	Low debt to equity ratio supports financial plan to cash-flow strategic initiatives and establish reserves for large scale growth initiative in future
Operating Ratio (OR)	>1.0	1.20	OR drives ability to establish reserve funds and is a measure of sustainability in response to Tennessee Statutory Requirements for Utilities. Serves as Test of Revenue Self Sufficiency. Loss rates (leaks) directly impact this number.
Full Cost Recovery Ratio (FCRR)	>1.0	1.05	The Full Cost Recovery Ratio sets a higher standard for ideal full-cost pricing by including annual debt service in the denominator of the previous OR calculation. Our elimination of debt helps this number.
Return on total Assets	2.0 – 2.7 %	2.13 % (up from .83 % in 2016)	Measure of Operating Efficiency - Elimination of interest payments associated with debt reduction efforts is a reason for success in this area
Day of Operating Cash on Hand	>180 days	210 days	Monitored to ensure minimum level of cash reserves are maintained

LCBPU CAPITAL IMPROVEMENTS						
MULTI-YEAR PLAN						
NO.	CAPITAL PROJECTS	FISCAL YEAR	ESTIMATED \$	FUNDING	STATUS	TOTALS
1	Upgrade Phone System in Administration, Payment Center and Garage Buildings	2017-18	\$6,000	Res/Rev	Complete	
2	Purchase 8.5 ton Excavator with articulating boom for pipeline installation projects	2017-18	\$100,000	Res/Rev	Complete	
3	Add Variable Frequency Drives to Raw Water Pumps at Taft WTP to control plant flow	2017-18	\$30,000	Res/Rev	Engr. Design	
4	Payment Center security improvements	2017-18	\$50,000	Res/Rev	Started	
5	Purchase and Install mixers for Childress, Mulberry and Crystal Springs Tanks	2017-18	\$27,000	Res/Rev	Engr. Design	
6	McBurg-Dellrose Road Water Line Replacement	2017-18	\$200,000	Res/Rev	In Progress	
7	Zone meter installations	2017-18	\$30,000	Res/Rev	On Going	
8	Add SCADA and VFD Control to Wells Hill Pump Station to Control Filling and Cycling of Childress Tank	2017-18	\$60,000	Res/Rev	Started	
9	SCADA Controlled PRV Station at Cheatham Road Transferring Water to Hot Rock Tank	2017-18	\$50,000	Res/Rev	Started	
10	Convert meters to radio read - Phase I	2017-18	\$306,250	TN SRF	Funding	Payments
11	Contingency and Engineering Fees for Phase I Meter AMI Project	2017-18	\$57,850	Res/Rev		
12	Matching Funds for 10" DI Water Lines in Runway Centre Industrial/Business Park	2017-18	\$129,000	Res/Rev	Contracted	
13	CDBG 12" Water Main Upgrade from Blanche Road at Philpot Road to Ardmore Highway at Pepper Road - Phase I	2017-18	\$525,000	CDBG	Not Funded	
14	Matching Funds towards CDBG Blanche / Taft main 12" DI main replacement	2017-18	\$78,448	Res/Rev		
15	Purchase forklift for unloading pipe and handling heavy inventory items	2017-18	\$29,496	Res/Rev	In Progress	\$769,346
16	Convert meters to radio read - Phase II	2018-19	\$685,200	TN SRF	Funded	Payments
17	Contingency and Engineering Fees for Phase II Meter AMI Project	2018-19	\$57,850	Res/Rev		
18	SCADA Controlled Duplex Pump Stations at Prospect Road and at Lincoln Road (275), both Pumping to Childress Tank	2018-19	\$350,000	Res/Rev		
19	Construct pump station along Gunter Hollow Road and to pump to Unity Tank	2018-19	\$150,000	Res/Rev		
20	Upgrade Belleville Pump Station with New Pumps, Valves and Variable Frequency Drives	2018-19	\$60,000	Res/Rev		
21	Install SCADA Control on the three Wells at Elora	2018-19	\$30,000	Res/Rev		
22	12" Water Main Upgrade from Blanche Road at Philpot Road to Ardmore Highway at Pepper Road - Phase II	2018-19	\$175,000	Res/Rev		\$765,000
23	Contingency and Engineering Fees for Phase II Meter AMI Project	2019-20	\$57,850	Res/Rev		
24	Raise Skinem Tank about 13' to work with Childress Tank; Blast & Paint Interior	2019-20	\$600,000	Res/Rev		
25	Purchase 6 ton Excavator and Trailer for setting taps	2019-20	\$80,000	Res/Rev		
26	Purchase HD Crew Truck through Statewide Contract	2019-20	\$52,000	Res/Rev		\$789,850
27	Purchase Tandem Axel Dump Truck from Statewide Contract	2020-21	\$200,000	Res/Rev		
28	Sand Blast and Paint Interior of Belleville Tank; Brush Blast and Paint Exterior	2020-21	\$110,000	Res/Rev		
29	Connect to Madison County at Hwy 431; including Pump Station and 8" piping to intersection with Old Huntsville Hwy.	2020-21	\$400,000	Res/Rev		\$762,000
30	Raise Crystal Springs Tank about 31' to work with Flintville and Childress Tanks; Blast & Paint Interior	2021-22	\$500,000	Res/Rev		
31	Install On-site Generator at Wells Hill Pump Station	2021-22	\$75,000	Res/Rev		
32	Install On-site Generator at Flintville Water Treatment Plant	2021-22	\$100,000	Res/Rev		
33	Install On-site Generator at Elora WTP	2021-22	\$100,000	Res/Rev		\$775,000