



BOARD MEETING AGENDA – September 25, 2017

1. Call to Order

- NOTICE OF MEETING RECORDINGS

Meetings of Lehigh County Authority's Board of Directors that are held at LCA's Main Office at 1053 Spruce Road, Wescosville, PA, may be recorded for viewing online at lehighcountauthority.org. Recordings of LCA meetings are for public convenience and internal use only and are not considered as minutes for the meeting being recorded, nor are they part of public record. Recordings may be retained or destroyed at LCA's discretion.

- *Public Participation Sign-In Request*

2. Review of Agenda / Executive Sessions

3. Approval of Minutes

- *September 11, 2017 Board meeting minutes*

4. Public Comments

5. Action / Discussion Items:

FINANCE AND ADMINISTRATION

- *LCA Pension Program – 2018 Minimum Municipal Obligation (MMO) – information only (yellow)*
- *2018-2022 Capital Plans – Final Draft – information only (to be handed out at meeting)*
- *2018 Preliminary Budget – presentation & discussion*
- *2018 Western Lehigh Rates – Preliminary Review (to be handed out at meeting)*
- *Suburban Water Rate Study – presentation & discussion*

WATER

- *Suburban Division – 2017 Water Meter Replacement Project (pink)*

WASTEWATER

- *Design Phase Change Order – Park Pump Station Upgrade (blue)*

6. Monthly Project Updates / Information Items (1st Board meeting per month)

7. Monthly Financial Review (2nd Board meeting per month) – **August 2017 report attached**

8. Monthly System Operations Overview (2nd Board meeting per month) – **August 2017 report attached**

9. Staff Comments

10. Solicitor's Comments

11. Public Comments / Other Comments

12. Executive Sessions

13. Adjournment

UPCOMING BOARD MEETINGS

Meetings begin at Noon at LCA's Main Office, unless noted otherwise below.

October 9, 2017

October 23, 2017

November 13, 2017

PUBLIC PARTICIPATION POLICY

In accordance with Authority policy, members of the public shall record their name, address, and discussion item on the sign-in sheet at the start of each meeting; this information shall also be stated when addressing the meeting. During the Public Comment portions of the meeting, members of the public will be allowed 5 minutes to make comments/ask questions regarding non-agenda items, but time may be

extended at the discretion of the Chair; comments/questions regarding agenda items may be addressed after the presentation of the agenda item. Members of the public may not request that specific items or language be included in the meeting minutes.

REGULAR MEETING MINUTES
September 11, 2017

The Meeting of the Lehigh County Authority was called to order at 11:04 a.m. on Monday, September 11, 2017, at which time Chairman Nagle called an Executive Session regarding potential litigation. Other Members present at the commencement of the meeting were: Linda Rosenfeld, Kevin Baker, Jeff Morgan, Richard Bohner, Norma Cusick, Scott Bieber, Ted Lyons and Deana Zosky. Authority Staff present were Liesel Gross, Brad Landon, Ed Klein, Chuck Volk, Chris Moughan, John Parsons, Susan Sampson, and Lisa Miller. Phil DePoe entered the meeting at 12:05 p.m.

The Executive Session ended at 12:23 p.m.

Chairman Nagle announced a break at 12:23 p.m. The meeting reconvened at 12:28 p.m. at which time the regular meeting was called to order.

REVIEW OF AGENDA

Chairman Nagle announced that today's Board meeting is being videotaped and streaming live and recordings will be posted to the Authority's website.

Chairman Nagle noted there was an Executive Session at 11:00 a.m. prior to the regular meeting; the topic was potential litigation. There are no additional agenda changes.

APPROVAL OF MINUTES

August 28, 2017 Regular Meeting Minutes

Richard Bohner suggested several corrections for grammar, word choice and phrasing. Scott Bieber asked that on page 2, fourth paragraph under the 2018-2022 Draft Capital Plans heading, the reference to *Little Lehigh Creek* be changed to *Spring Creek*.

On a motion by Richard Bohner, seconded by Ted Lyons, the Board approved the Minutes of the September 11, 2017 meeting as corrected above (9-0).

PUBLIC COMMENTS

Joyce Marin, a Longswamp Township, Berks County resident with a Macungie mailing address, stated she read an article in the newspaper regarding blending and wants to learn more about this topic. Ms. Marin also stated she is concerned about the overall water table and how groundwater is being monitored because wells in her neighborhood are going dry. Liesel Gross addressed her concerns stating that weekly reports are posted on the Authority's website showing surface water and groundwater conditions within the Little Lehigh Creek basin. The Authority has established new drought triggers based on a collection of measures including the water level in the Little Lehigh Creek, a groundwater quarry in Fogelsville and a monitoring well in the Lower Macungie area. All triggers and other supplies are showing normal levels and Ms. Gross added that the Authority has not heard of any private wells going dry. Ms. Gross asked Ms. Marin to contact her after the meeting with information on the wells that are going dry so the Authority can use this information with other evaluations the Authority is doing. John Parsons gave an update on the status of the watershed monitoring project being led by Al Guiseppe of Spotts, Stevens and McCoy.

ACTION AND DISCUSSION ITEMS

2018-2022 Capital Plans – Review of Public Comments Received

Chuck Volk handed out the comments that were received from the Lehigh Valley Planning Commission (LVPC) and comments received from the City of Allentown (COA). Liesel Gross noted the Authority received the comments from the City late on Friday. The comments will be reviewed and the Authority will respond to them. The Board requested to see the Authority's response to the City when complete. Ms. Gross noted that more detail of the City Division water projects will be provided in the presentation of the Water System

Master Plan that Arcadis will be presenting next. The Board asked if there were any public comments. There were none. The LVPC and COA comments will be placed on the Authority's website.

Allentown Division – Water System Master Plan Presentation

John Parsons, who was the project manager for this project, gave an overview of the study. Tony Dill and Marnie Bell were present from Arcadis and gave a PowerPoint presentation providing the scope and key findings of the Water System Master Plan. The purpose of the plan was to assess the current condition and remaining useful life of the water system infrastructure (excluding distribution system piping), identify prioritized projects that reduce risk, improve reliability, enhance operations, and develop a capital improvement plan (CIP) that encompasses 50-year planning period and addresses short and long term needs.

Deana Zosky asked how the Authority is integrating all study results with other planning documents and the budget. Chuck Volk said that the results were put into the Capital Plan.

In response to Board member questions about the Lehigh River intake project outlined in the plan, John Parsons commented that a lot of work has been done with the Pennsylvania Department of Environmental Protection (DEP) on the taste and odor regarding the Lehigh River, since that has been a complaint of customers at times when the Lehigh River intake has been used to provide water. The taste and odor problem originates from Geosmin and MIB (Methyl-Isoborneol) found in the water, especially during low-flow conditions that the Lehigh River often experiences.

Ted Lyons asked what would happen if the Authority loses use of the Little Lehigh Creek intake. John Parsons explained the water plant would struggle to keep up with the system demands, especially if not using the Lehigh River intake.

John Parsons provided three hardcopies of the entire report for anyone who wants to review it.

Kevin Baker asked if anything in the report provided a level of surprise. John Parsons said they were not surprised by the results of the report because it's an old system and the results are typical of an old system.

Liesel Gross said the master plan was submitted to the City in August and they are currently reviewing it.

CH2M Contract Extension

Kevin Baker recused himself from this discussion because of a professional relationship with CH2M through his employment. A Conflict of Interest Disclosure form was signed and will be attached to the Minutes. Liesel Gross provided a memorandum describing the Operations & Maintenance Contract Renewal and introduced Joe Nattress, Kevin Dahl, and Diana Heimbach from CH2M. Chuck Volk gave a brief background of the work and negotiations regarding the services CH2M provides.

Joe Nattress presented a PowerPoint overview of the processes and operation of the industrial wastewater pretreatment plant (PTP) in Fogelsville along with a background of CH2M and its history of working relationship with the Authority.

Liesel Gross described the history and negotiations regarding the contract renewal between the Authority and CH2M. Highlights of the contract terms and changes in three major areas include rate setting, the waste hauler program, and guaranteed cost savings/process improvements.

The Board commented on the waste hauler program regarding testing and registration. Diana Heimbach responded describing how the haulers are checked and the frequency of testing. Haulers must be pre-registered and permitted prior to unloading at the plant.

Liesel Gross explained the benefits of extending the contract with CH2M that result in cost savings and process improvements. Joe Nattress described three capital improvements which are possible because of

the longer term of the contract that will be at no additional cost to the Authority but will result in shared cost savings for both parties.

Liesel Gross reviewed the process the Authority used to analyze and evaluate the competitiveness of CH2M's pricing and drafted a summary comparing the costs for LCA to operate the plant itself with its own personnel versus CH2M operating the plant. The cost is very similar however, if the Authority were to operate the plant, the Authority would not have the benefit of CH2M engineering expertise and public outreach, the transition cost would be significant because of upfront costs due to the costs incurred to hire personnel and purchase replacement equipment, as well as the costs to implement capital investments that CH2M will fund.

Liesel Gross said that based on the review of the contract by Authority Staff and Brad Landon, and in addition to the strong partnership with LCA and CH2M, it is recommended the proposed O & M contract be approved.

Deana Zosky stated her concerns regarding capacity and long-term maintenance strategies as it relates to industrial customers and the ability of the Authority to recover the full cost of maintaining the facility. She also asked how the Authority is protected against any risks associated with the waste hauler program; Joe Nattress and Diana Heimbach explained the risks and explained how the new program will serve to minimize the risk to the Authority and CH2M, holding permitted haulers and waste generators responsible for the waste they discharge to the facility.

On a motion by Jeff Morgan, seconded by Norma Cusick, the Board approved the CH2M contract extension and authorized Staff to execute the contract with the ability to make any minor changes in the final version that do not materially change the terms in the version shared with the Board and reviewed for the meeting (8-0). Kevin Baker recused himself.

Allentown Division – Kline's Island WWTP Phase 1 AO Design Improvements

Phil DePoe gave an overview of the project to respond to the EPA Administrative Order to eliminate sanitary sewer overflows (SSOs) and specifically to eliminate the use of Outfall 003 at Kline's Island Wastewater Treatment Plant (KIWWTP) to discharge untreated wastewater to the Little Lehigh Creek during wet-weather events. He reviewed the City of Allentown's (City) proposed two options to address this, including options for flow equalization and blending. Kleinfelder had previously completed the conceptual design for these options including developing of cost estimates for two phases of work. The City is responsible for determining the scope of the project and paying for the work, and recently directed the Authority to proceed with final design of the first phase of work on the blending option only. Mr. DePoe explained that Kleinfelder developed a proposal to complete the final design of the work, and he described all the components at the KIWWTP that would be included in the design. Ultimately, the blending option would include addition of tanks and other treatment facilities so that peak flows that exceed the plant's current 87 million gallon per day (MGD) peak flow capacity to receive primary treatment and disinfection, blending the treated effluent with flows that receive full treatment, and resulting in effluent discharges that meet all permit requirements.

Liesel Gross explained that since this item had been tabled from the August 14, 2017 Board meeting agenda, Kleinfelder was asked to prepare an updated proposal that would include work stoppages at key points along the design schedule to allow for the City and Authority representatives to pursue regulatory and legislative outreach initiatives aimed at securing a formal decision on the blending alternative prior to spending the full amount of the design contract. She referenced the recent news article that clarified the regulatory position that no formal decision would be provided on blending until a permit application was submitted, and the final design is required to prepare the permit application. However, if the outreach to regulators is successful in securing a formal decision sooner, that could save all ratepayers unnecessary design expenses. Kleinfelder provided a revised proposal to capture this request, which was described in more detail in the memo distributed to the Board prior to the meeting.

Kevin Baker asked what would happen if the Authority did nothing at the KIWWTP, and Mr. DePoe explained that overflows at Outfall 003 would continue anytime peak flows would exceed 87 MGD.

Linda Rosenfeld asked for clarification of the conditions in which blending would be used and stated that if it is only during peak flow period, the water level in the river is so high that the blended effluent being discharge would have minimal impact. Mr. DePoe confirmed that the blending facilities would be used during storms when the wastewater flows exceed 87 MGD and that Kleinfelder's conceptual design work has confirmed there is no measurable difference in effluent quality for blended waste versus waste discharged if flow equalization facilities were constructed.

Deana Zosky expressed her concern for downstream users of the Lehigh River that would be receiving the blended effluent, and that the impact to environmental quality is important to consider.

Marisa Altman, Allentown resident, stated that she believes there is a lot of ambiguity about the blending issue and the true impact it would have on the environment. She expressed concern about the potential for increasing frequency of larger storms that create the peak flow conditions, and that the City and other communities need to address the root cause of the problem. She suggested that the use of green infrastructure for stormwater management could help mitigate the peak flows. She also asked what would happen if the City invests in blending facilities now, only to find later that regulations don't allow it.

Liesel Gross thanked Ms. Altman for her comments and reminded the Board and public that the facilities to be constructed at the KIWWTP are only a part of the overall solution being contemplated. In the Western Lehigh County region, the townships and boroughs have partnered together to develop strategies to improve their sewer systems and address leakage. This will reduce peak flows, and even more leakage will be removed if other communities and the City of Allentown complete more work in their own systems as well.

Dan Koplisch, consultant to the City of Allentown, provided a handout describing a study completed by Kleinfelder in 2016 to determine the water quality impact of blending. He explained that the permit requirements are established to protect the environment and sensitive ecosystems during very low-flow conditions when the KIWWTP discharge has the greatest impact on the environment. Because the blending facilities would only be activated during high-flow conditions, and the resulting discharge would continue to meet permit requirements, there is no measurable environmental impact caused by blending versus other alternatives. Blending is also the lowest cost alternative. Mr. Koplisch also distributed a diagram of the KIWWTP, showing the footprint of flow equalization tanks that would be required to achieve similar results as blending. He expressed concern over the ability to expand the plant in the future if flow equalization tanks are constructed and in the event that regulatory changes require additional treatment facilities to be added at the site.

Jeff Morgan asked for confirmation that the blending facilities would treat the peak flows and discharges would continue to meet permit requirements. Phil DePoe explained Kleinfelder's conceptual design work indicates all permit requirements would be met.

Ted Lyons asked about the work completed to date by Kleinfelder and if there is any reason that they completed more work than anticipated, as indicated in the Authority staff memo. Mr. DePoe responded that the consultant's familiarity with the KIWWTP facility and its operations staff allowed more work to be completed in the conceptual design phase, and this will result in a lower overall project cost as their final design proposal is also well below the anticipated design cost for this work.

On a motion by Scott Bieber, seconded by Linda Rosenfeld, the Board approved the professional services authorization, amendment number 2, for Kleinfelder in the amount of \$874,620.00 for the final design of the City Division Administrative Order Phase 1 Improvements, as amended by the updated proposal distributed and discussed by the Board (8-1). Deana Zosky opposed.

MONTHLY PROJECT UPDATES/INFORMATION ITEMS

Liesel Gross called the Board's attention to four items under Finance & Administration section of the report (the 2018-2022 Capital Plan, 2018 Preliminary Budget, 2018 Western Lehigh Rates, and Suburban Water Rate Study) as they all relate to the 2018 Preliminary Budget. Deana Zosky suggested that budget assumptions, rate structures, operating budget, and capital plans should be integrated and presented together for approval as a single financial strategy. Liesel Gross responded that the Authority staff will review this prior to the submission of the meeting agenda for the September 25, 2017 Board meeting.

STAFF COMMENTS

Liesel Gross recognized the Board for coming in early for the meeting and appreciates their level of dedication and detailed feedback provided on the items discussed at this meeting.

Susan Sampson announced that Liesel Gross has been selected by the Pennsylvania Municipalities Authorities Association (PMAA) as the 2017 Employee of the Year and will be honored at a dinner in Hershey that evening.

SOLICITOR'S COMMENTS

None.

PUBLIC COMMENTS / OTHER COMMENTS

None.

EXECUTIVE SESSION

An Executive Session was held at 11:04 a.m.

ADJOURNMENT

There being no further business, the Chairman adjourned the meeting at 2:54 p.m.

Richard H. Bohner
Secretary



LEHIGH COUNTY AUTHORITY 1053 SPRUCE ROAD - P.O. BOX 3348 - ALLENTOWN, PA 18106-0348
610-398-2503 - FAX 610-351-8363

MEMORANDUM

Date: September 13, 2017
To: Lehigh County Authority Board of Directors
From: Edward Klein, Chief Financial Officer
Subject: 2018 Minimum Municipal Obligation (MMO) for the Lehigh County Authority Pension Plan (39-448-6N)

Act 205 of 1984, as amended, governs the funding requirements for all municipal pension plans. The law requires the Chief Administrative Officer of each pension plan to inform the governing board of the municipality of the plan's expected financial obligation for the coming year. This must be done by the last business day in September.

The calculation of the 2018 MMO required an estimate of the 2017 W-2 wages of the employees covered by the plan. I have indicated on the attached worksheet my best estimate of the same. Questions on the pension cost calculation may be addressed to either myself or the Pennsylvania Municipal Retirement System at (800) 622-7968.

The MMO is the municipality's 2018 bill for this pension plan and must be paid by December 31, 2018. The obligation must be met with general fund monies or with any General State Aid to Municipal Pensions to which we may be entitled to under Act 205.

Edward Klein
Chief Financial Officer
edwardklein@lehighcountyauthority.org
(610) 398-2503, extension 160

Attachment: 2018 MMO Worksheet

The Minimum Municipal Obligation Worksheet (MMO)
For The
Lehigh County Authority Pension Plan (39-448-6 N)
For Plan Year 2018

CHARGES

Estimated 2017 W-2 Payroll

For Covered Plan Members:

(A) \$ 9,036,254

PMRS Determined Normal Cost

Expressed as a Decimal:

(B) .1219

RESULT: (A) * (B) =

(C) \$ 1,101,519

Administrative Charge (PMRS Determined)

of Plan Members times \$20:

(D) 3,780

Amortization of Unfunded Liability

(PMRS Determined)

(E) 130,146

TOTAL CHARGES: (C) + (D) + (E) =

(F) \$ 1,235,445

CREDITS

Repeat Estimated 2017 W-2 Payroll

For Covered Plan Members:

(A) \$ 9,036,254

Employee Contribution Rate

Expressed as a Decimal:

(G) .01

RESULT: (A) * (G) =

(H) \$ 90,363

Amortization of the Actuarial Surplus

(PMRS Determined)

(I) 0

TOTAL CREDITS: (H) + (I) =

(J) \$ 90,363

MINIMUM MUNICIPAL OBLIGATION

(Based on 01/01/2015 Actuarial Valuation)

(MMO) \$ 1,145,083

Equals TOTAL CHARGES Minus

TOTAL CREDITS (F) - (J) = (Please round numbers to dollars)

Prepared By: Kathy A. Martin (Name) Kathy. Martin (Signature)
Human Resources mgr. (Title) (610) 398-2503 (Telephone #)

Please complete the above worksheet with your best estimates and return a copy to the Pennsylvania Municipal Retirement System by October 6. The official copy must be shared with the plan's governing board by the last business day in September.

MEMORANDUM

Date: September 25, 2017

To: Lehigh County Authority Board
From: Amy Kunkel, Capital Works Project Engineer
Subject: Suburban Division – 2017 Water Meter Replacement Project –
Construction Phase

MOTIONS / APPROVALS REQUESTED:

No.	Item	Amount
1	Capital Project Authorization – Construction Phase	\$1,668,800.00
2	Construction Contract – General (*): Core and Main, LP f/k/a HD Supply Waterworks, LTD	\$1,380,762.70
3	Meter Reading Upgrade Direct Purchase (*): Core and Main, LP f/k/a HD Supply Waterworks, LTD	\$28,000.00
4	Large Meter Direct Purchase (*) Core and Main, LP f/k/a HD Supply Waterworks, LTD	\$120,000.00

(*) Included in Capital Project Authorization

BACKGROUND:

The project consists of the replacement of older water meters (both residential and non-residential) that have reached the end of their useful life. Meters 2” in size and smaller will be replaced under the General Construction Contract. Non-residential meters that are 3” and larger will be purchased by LCA and installed by the customer. All of the meter replacements will have new radio read units installed. Additionally, all meters that are currently manual read will be upgraded to radio read.

The existing (MXU) radio read unit that Sensus used on the older meters is being replaced with new “M Units” that require different meter reading equipment. The new meter reading equipment will be directly purchased and installed by LCA staff prior to the start of the meter replacement project. The new radio read equipment is compatible with our existing meter reading equipment, which will continue to read the old style radio units that have not been upgraded as part of this project.

The older MXU units were expected to have a 7 year battery life. As such, there are many meters less than 15 years old which do not fall within the meter replacement project, but cannot be read because of MXU failure. The General Construction contract includes replacement of approximately 800 of these failed units with new M Units. These new units will have a 20 year battery life.

PROJECT OBJECTIVE:

The project objective is to replace and upgrade older and non-functioning meter reading equipment to increase meter reading accuracy and efficiency which in turn should increase revenue.

FUNDING:

The Project will be funded by the LCA Suburban Division.

BUDGET AMENDMENT:

Not required

PROJECT STATUS:

Board approval is requested for the Construction Phase.

THIS APPROVAL – CONSTRUCTION PHASE

BIDDING SUMMARY:

This project was bid as one contract. The project was advertised for bid on August 23, 2017 and bids were received via PennBid on September 14, 2017, the results of which are as follows:

General Construction	
Bidder	Bid Amount
Core and Main, LP, f/k/a HD Supply Waterworks, LLP	\$1,380,762.70

Core and Main, LP has extensive meter replacement experience, has worked with LCA numerous times on other projects, and is a supplier of Sensus products which is the basis of design meter equipment used in the Suburban Division. Both the firm and its subcontractor's qualifications and experience statements indicate numerous projects of similar scope and type. The bid documents are in order and the company appears well qualified to perform the work. The bid submitted is below the \$1,400,000 engineer's estimate for their portion of the replacement project.

PROFESSIONAL SERVICES:

Construction engineering and part time inspection services will be performed by LCA personnel.

PROJECT SCHEDULE:

Based on contract award following the September 25, 2017 Board meeting, it is anticipated that the project will be completed by April 2018.

FUTURE AUTHORIZATIONS:

None

CAPITAL PROJECT AUTHORIZATION

PROJECT NO.:	SD-W-17-5	BUDGET FUND:	Suburban Div\Water\Capital
PROJECT TITLE:	Suburban Division 2017 Water Meter Replacement Project – Construction Phase -	PROJECT TYPE:	<input checked="" type="checkbox"/> Construction <input type="checkbox"/> Engineering Study <input checked="" type="checkbox"/> Equipment Purchase <input type="checkbox"/> Amendment
THIS AUTHORIZATION:	\$1,668,800		
TO DATE (W/ ABOVE)	\$1,668,800		

DESCRIPTION AND BENEFITS:

This Authorization is for the replacement of approximately 2000 residential meters and 430 commercial meters as well as replacing the transceiver units on “non-read” meters. Residential meters which are 20 years and older and commercial meters 15 years and older will be replaced. All meters will be upgraded to the most current radio read capability. This authorization takes the project through construction phase.

Previous Authorizations	
None	

REQUESTED THIS AUTHORIZATION	
Construction Phase	
Staff	\$65,000
Contract 1-General Construction	\$1,380,800
Miscellaneous	
Meter Reading Upgrade Direct Purchase	\$28,000
Large Meter Direct Purchase	\$120,000
Contingency	\$75,000
Total This Authorization	\$1,668,800

Future Authorization	
None	

<i>Total Estimated Project</i>	<i>\$1,668,800</i>
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REVIEW AND APPROVALS:

Project Manager	Date	Chief Executive Officer	Date
Chief Capital Works Officer	Date	Chairman	Date



Lehigh County Authority

1053 Spruce Street * P.O. Box 3348 * Allentown, PA 18106-0348
(610)398-2503 * FAX (610)398-8413 * Email: service@lehighcountyauthority.org

MEMORANDUM

Date: September 25, 2017

To: Lehigh County Authority Board
From: Charles Volk, P.E., Chief Capital Works Officer
Subject: Design Phase Change Order - Park Pump Station Upgrade

MOTIONS /APPROVALS REQUESTED:

No.	Item	Amount
1	<u>Capital Project Authorization – Contract Amendment No. 1</u> <u>Whitman, Requardt and Associates, LLP – design phase change order</u>	\$44,406

PROJECT BACKGROUND:

The Park Pump Station was constructed in the early 1980s and is located in Little Lehigh Parkway within the City of Allentown. The station was originally intended to serve as a relief facility for the Western Lehigh and Little Lehigh Interceptors during wet weather events. The station conveys wastewater from ten municipalities to just upstream of Kline’s Island Wastewater Treatment Plant. The station has seen a dramatic increase in operation since its inception, and is now operated daily which has resulted in significant wear and tear on equipment, with many components nearing the end of their service life. In addition, the increasing frequency of pump related repairs and declining pump performance has necessitated an upgrade of this essential asset in order to restore the station to its design capacity and avoid sanitary sewer surcharging and overflows in the interceptors.

The purpose of this project is to maintain the level of service and design capacity, prolong service life and enhance station reliability. The project includes the following major equipment items: replace the pumps and motors, replace the electrical controls and drives, replace the HVAC system, replace the inoperable force main drain valve, replace affected sections of discharge and suction piping, install a new winch and hoist system for pump removal, modify the first floor dry well hatch, and other related upgrade work.

The improvements are consistent with provisions of the EPA Administrative Order.

CHANGE ORDER SUMMARY:

This design phase change order requested by the design engineer (WRA) is to capture additional design scope items that were unforeseen at the commencement of design phase. These additional items include: evaluation of feasibility of increasing station design capacity beyond current 21 mgd to 24 mgd, in lieu of obtaining additional design capacity at KIWWTP in main pump station (this included evaluation of station space limitations, force main and station hydraulics analyses, and cost evaluation), analysis of maximum station capacity evaluation based on existing PPL service size, replacement of sump pumps, replacement of surge relief valve on force main, removal of well water supply system and connection with City water, replacement of all roof mounted exhaust fans, wet well level control system design revision for a new bubbler type control system, and specifications for all changes.

FINANCIAL:

The Project will be funded by the LCA Suburban Division.

PROJECT STATUS:

Design phase is approximately 80% complete. The DEP Part 2 Water Quality Management Permit was submitted on 7/16/17 to DEP and we are awaiting review comments. Bid phase is anticipated to follow DEP permit approval in early 2018.

THIS APPROVAL:

Contract Amendment No. 1

FUTURE AUTHORIZATIONS

Construction phase.

CAPITAL PROJECT AUTHORIZATION AMENDMENT No. 1

PROJECT NO.:	SD-S-15	BUDGET FUND:	Suburban Div\Wastewater\Capital
PROJECT TITLE:	Park Pump Station Upgrade	PROJECT TYPE:	
		<input type="checkbox"/> Construction <input checked="" type="checkbox"/> Engineering Design <input type="checkbox"/> Equipment Purchase <input type="checkbox"/> Amendment	
THIS AUTHORIZATION TO DATE (W/ ABOVE)	\$ 44,406		
	\$ 377,008		

CONTRACT AMENDMENT NO. 1 – WHITMAN, REQUARDT, AND ASSOCIATES, LLC DESIGN PHASE CHANGE ORDER DESCRIPTION OF SCOPE:

This design phase change order requested by the design engineer (WRA) is to capture additional design scope items that were unforeseen at the commencement of design phase. These additional items include the following:

- 1) Evaluation of feasibility of increasing station design capacity beyond current 21 mgd to 24mgd, in lieu of obtaining additional design capacity at KIWWTP in main pump station (this included evaluation of station space limitations, force main and station hydraulics analyses, and cost evaluation);
- 2) Station capacity expansion capacity evaluation based on existing PPL service size
- 3) Replacement of station sump pumps
- 4) Replacement of surge relief valve on force main
- 5) Removal of well water supply system and design of connection with City waterline
- 6) Replacement of all roof mounted exhaust fans and fan controls
- 7) Wet well level control system design revision for a new bubbler type control system
- 8) Specifications for all changes

Previous Authorizations	
Park Pump Station Upgrade Design Phase	\$332,602

REQUESTED THIS AUTHORIZATION	
Design Phase Contract Amendment No. 1	
Professional Services:	
Design & Bid Phase Services - WRA	\$44,406
Total This Authorization	\$377,008

Future Authorization	
Construction Phase	\$2,647,245

Total Estimated Project	\$2,950,000
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REVIEW AND APPROVALS:

Project Manager	Date	Chief Executive Officer	Date
Chief Capital Works Officer	Date	Chairman	Date



LEHIGH COUNTY AUTHORITY

FINANCIAL REPORT – AUGUST 2017

**FINANCIAL REPORT
AUGUST 2017**

1. SUMMARY

A. Month

MONTH	AUGUST 2017						
	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Income Statement							
Suburban Water	243,435	(50,645)	13,445	198,859	294,080	229,990	44,576
Suburban Wastewater	(273,052)	(142,658)	(29,820)	(52,682)	(130,394)	(243,232)	(220,370)
City Division	(437,769)	(1,588,575)	(476,993)	(214,223)	1,150,806	39,224	(223,546)
Cash Flow Statement (Indirect)							
Suburban Water	(41,088)	(346,966)	(505,788)	133,808	305,878	464,700	(174,897)
Suburban Wastewater	(100,156)	(311,678)	(322,766)	83,874	211,522	222,610	(184,029)
City Division	1,059,999	499	1,130,835	1,231,913	1,059,500	(70,836)	(171,914)

Net income

Suburban Water was the lone fund with a positive net income. Suburban Wastewater and the City Division both finished with net incomes that were negative. Compared to forecast for the month, Suburban Water and City Division both came in better than forecast while Suburban Wastewater came in below forecast.

The \$294k favorable forecast variance in Suburban Water was driven mainly by lower operating expenses that more than made up for lower operating revenues along with the effect of lower expensed capital from lower overall capital spending.

Suburban Wastewater was unfavorable to forecast by \$130k on higher operating expenses with a slight positive offset from higher non-operating revenues.

City Division was \$1.1m higher than the forecast for the month. This was due to higher operating revenues and lower capital expensed which was partially offset by higher operating expenses.

Cash Flows

City Division was the only fund with positive cash flow. Suburban Water and Suburban Wastewater were both on the negative side. Compared to forecast, however, all three funds had cash flows that were better than forecasts.

Suburban Water was \$306k better than forecast for the month due to higher cash generated from operations along with lower capital spending.

Suburban Wastewater was \$212k better than forecast despite lower cash from operations as lower capital spending more than offset the lower operating cash.

B. YTD

YTD	AUGUST 2017							
	Actual	Forecast	Budget	Prior Year		FC Var	Bud Var	PY Var
Income Statement								
Suburban Water	10,084	(179,782)	(124,402)	623,664		189,867	134,486	(613,580)
Suburban Wastewater	222,932	221,128	(224,099)	453,342		1,805	447,031	(230,410)
City Division	(2,833,409)	(5,669,054)	(7,300,153)	(5,367,187)		2,835,645	4,466,744	2,533,777
Cash Flow Statement (Indirect)								
Suburban Water	14,567,354	13,985,063	1,621,734	498,174		582,291	12,945,620	14,069,180
Suburban Wastewater	1,283,043	668,967	(2,567,667)	1,863,529		614,076	3,850,710	(580,486)
City Division	1,595,306	(632,320)	(1,217,390)	2,800,407		2,227,626	2,812,696	(1,205,101)
Debt Service Coverage Ratio								
Suburban Water	1.38	1.39	1.22	1.85		(0.00)	0.17	(0.47)
Suburban Wastewater	7.75	7.51	2.40	7.47		0.24	5.35	0.28
City Division	1.26	1.22	1.12	1.26		0.04	0.14	0.00
YTD Cash Flow Statement (Adjusted)								
Suburban Water	(724,652)	(1,306,943)	(4,278,266)	498,174		582,291	3,553,614	(1,222,826)
Suburban Wastewater	1,283,043	668,967	(2,567,667)	1,863,529		614,076	3,850,710	(580,486)
City Division	1,595,306	(632,320)	(1,217,390)	2,800,407		2,227,626	2,812,696	(1,205,101)

Net income

Suburban Water and Suburban Wastewater have net incomes through this year that are positive while the City Division has a net loss so far this year. Compared to forecast, all three funds have net incomes better than both forecast and budget.

Suburban Water has a net income that is \$190k better than forecast and \$135k better than budget. Against forecast, net income was better as lower operating revenues were offset by lower operating expenses and lower expensed capital more than offset lower non-operating revenues. Against budget, operating revenues are lower but operating expenses are significantly lower to more than offset the lower operating revenues.

Suburban Wastewater has a net income that is \$2k better than forecast and \$447k better than budget. The favorable variance to forecast is largely driven by the offset of higher operating and non-operating revenues by higher operating expenses. The variance to budget is driven by lower operating expenses and lower non-operating expenses offset partly by lower operating revenues.

City Division has a net income that is \$2.8m favorable to forecast and \$4.5m favorable to budget. So the net income is negative but not as negative as forecast or budget so far this year. The primary reason for the significant favorable variance to forecast is higher non-operating revenues along with lower non-operating expenses with some help from higher operating revenues more than compensating for higher operating expenses.

Cash Flows

All three funds have cash flows so far this year that are positive. Additionally, the cash flows on all three funds are better than both forecast and budget.

Suburban Water cash flow is \$582k better than forecast and \$3.5m better than budget after adjusting for borrowing. In both cases, primary drivers of these favorable variances is lower capital spending.

Suburban Wastewater cash flow is \$614k better than forecast and \$3.9m better than budget. Again, the primary factor in this is lower capital spending.

City Division has cash flow that is \$2.2m better than forecast and \$2.8m better than budget. This is also primarily due to lower capital spending against forecast and budget.

Debt Service Coverage Ratio

All three funds have a debt service coverage ratio that is better than the internal target of 1.20 and in line with or better than both forecast and budget.

2. SUBURBAN WATER

A. Month

MONTH - SUBURBAN WATER	AUGUST 2017						
	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Income Statement							
Operating Revenues	713,837	761,276	777,499	734,571	(47,439)	(63,662)	(20,734)
Operating (Expenses)	(668,958)	(772,471)	(734,533)	(540,385)	103,513	65,575	(128,573)
Operating Income	44,879	(11,195)	42,966	194,186	56,074	1,913	(149,306)
Non-Operating Revenues (Expenses)	215,831	63,407	66,167	87,003	152,424	149,664	128,828
Income Before Interest	260,710	52,212	109,133	281,189	208,498	151,577	(20,479)
Interest Income	113,604	14,143	16,667	5,014	99,461	96,937	108,590
Interest Expense	(130,879)	(117,000)	(112,355)	(87,344)	(13,879)	(18,524)	(43,535)
Capital Contributions	-	-	-	-	-	-	-
NET INCOME	243,435	(50,645)	13,445	198,859	294,080	229,990	44,576

Net income was positive and was \$294k better than forecast.

Operating revenues were down due to lower revenues from the industrial/commercial and residential segments.

Operating expenses were significantly lower due to lower spending for maintenance services, water purchases, and equipment purchases.

Non-operating revenues (expenses) were favorable due to lower capital costs expensed that more than offset lower tapping fees and lower project reimbursement.

Interest income was up on higher invested balances.

MONTH - SUBURBAN WATER	AUGUST 2017						
	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Cash Flow Statement (Indirect)							
Net Income	243,435	(50,645)	13,445	198,859	294,080	229,990	44,576
Add: Depreciation & Amortization	245,832	245,832	245,833	245,832	-	(1)	-
Add: Non-Cash Interest Expense	(0)	(2,000)	-	(0)	2,000	(0)	(0)
Add: Capex Charged to Expense	(180,885)	25,314	8,333	181	(206,199)	(189,218)	(181,066)
Principal Payments	(152,751)	(139,000)	(152,816)	(123,151)	(13,751)	65	(29,600)
Investments Converting To Cash	-	-	-	-	-	-	-
New Borrowing	-	-	-	-	-	-	-
Capital Expenditures	(196,719)	(426,467)	(620,583)	(187,912)	229,748	423,864	(8,807)
NET FUND CASH FLOWS	(41,088)	(346,966)	(505,788)	133,808	305,878	464,700	(174,897)

Cash flow was negative but was \$306k better than forecast on higher cash generated by operations

Cash generated by operations was better than forecast due to higher net income.

Capital spending was \$229k lower than forecast.

B. YTD

YTD - SUBURBAN WATER	AUGUST 2017						
	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Income Statement							
Operating Revenues	5,820,779	5,990,905	5,988,030	5,748,960	(170,126)	(167,251)	71,819
Operating (Expenses)	(5,244,680)	(5,417,218)	(5,876,264)	(4,859,453)	172,538	631,584	(385,227)
Operating Income	576,099	573,687	111,766	889,507	2,412	464,333	(313,408)
Non-Operating Revenues (Expenses)	423,994	297,258	529,336	401,443	126,737	(105,342)	22,552
Income Before Interest Expense	1,000,093	870,944	641,102	1,290,949	129,149	358,991	(290,856)
Interest Income	161,269	68,143	133,336	37,709	93,126	27,933	123,559
Interest Expense	(1,151,278)	(1,118,870)	(898,840)	(704,995)	(32,408)	(252,438)	(446,283)
Capital Contributions	-	-	-	-	-	-	-
NET INCOME	10,084	(179,782)	(124,402)	623,664	189,867	134,486	(613,580)

Net income for the year is positive and is \$190k better than forecast and \$135k better than budget.

Compared to forecast

Operating revenues are down due to lower revenues from industrial/commercial and residential segments.

Operating expenses are lower due to lower spending on maintenance services, water purchases, and equipment purchases.

Non-operating revenues (expenses) are favorable due to lower expensed capital which more than made up for lower tapping fees and lower project reimbursement.

Interest income was higher on higher invested balances with a large portion of that coming from the investments out of the 2017 bond issue.

Compared to budget

Operating revenues are down due to lower revenues from industrial/commercial and residential segments.

Operating expenses are lower due to lower spending on maintenance services, water purchases, miscellaneous services, and equipment purchases.

Non-operating revenues (expenses) are unfavorable due to lower project reimbursement which was partially offset by lower expensed capital.

Interest income was higher on higher invested balances with a large portion of that coming from the investments out of the 2017 bond issue.

YTD - SUBURBAN WATER	AUGUST 2017						
Cash Flow Statement (Indirect)	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Net Income	10,084	(179,782)	(124,402)	623,664	189,867	134,486	(613,580)
Add: Depreciation & Amortization	1,966,656	1,966,656	1,966,664	1,966,656	-	(8)	-
Add: Non-Cash Interest Expense	-	(4,000)	-	(0)	4,000	-	0
Add: Capex Charged to Expense	5,026	202,509	66,664	3,030	(197,483)	(61,638)	1,996
Principal Payments	(1,094,413)	(1,080,596)	(1,222,528)	(1,078,846)	(13,817)	128,115	(15,567)
Investments Converting To Cash	-	-	-	-	-	-	-
New Borrowing	15,292,006	15,292,006	5,900,000	-	-	9,392,006	15,292,006
Capital Expenditures	(1,612,005)	(2,211,730)	(4,964,664)	(1,016,330)	599,725	3,352,659	(595,676)
NET FUND CASH FLOWS	14,567,354	13,985,063	1,621,734	498,174	582,291	12,945,620	14,069,180

If we adjust the cash flows for all of the differences created by borrowing variances, cash flow so far this year would be negative but would be \$582k better than forecast and \$3.6m better than budget.

Compared to forecast, cash flows are up on lower capital spending

Compared to budget, cash flows are better due to lower capital spending as well.

3. SUBURBAN WASTEWATER

A. Month

MONTH - SUBURBAN WASTEWATER	AUGUST 2017						
Income Statement	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Operating Revenues	1,438,968	1,434,244	1,511,596	1,457,691	4,724	(72,628)	(18,723)
Operating (Expenses)	(1,752,309)	(1,597,270)	(1,546,447)	(1,764,899)	(155,039)	(205,862)	12,590
Operating Income	(313,341)	(163,026)	(34,851)	(307,208)	(150,315)	(278,490)	(6,133)
Non-Operating Revenues (Expenses)	57,663	38,010	66,083	271,221	19,653	(8,420)	(213,558)
Income Before Interest Expense	(255,678)	(125,016)	31,232	(35,987)	(130,662)	(286,910)	(219,691)
Interest Income	394	389	9,917	808	5	(9,523)	(414)
Interest Expense	(17,768)	(18,031)	(70,969)	(17,502)	263	53,201	(266)
Capital Contributions	-	-	-	-	-	-	-
NET INCOME	(273,052)	(142,658)	(29,820)	(52,682)	(130,394)	(243,232)	(220,370)

Net income was negative and was \$130k lower than forecast.

Operating revenue was slightly favorable to forecast. Revenues from signatory group was about in line with forecast with higher revenues from WLI and LLRI offset by lower revenues from Western Weisenberg. Wastewater Treatment Plant Revenues mostly offset as well with lower hauler fees made up by higher industrial charges and higher revenues from excess removal

Operating expenses were higher than forecast due to higher treatment & transportation costs along with higher treatment removal costs with a partial offset from lower maintenance services spending and lower contract operator costs.

Non-operating revenues (expenses) were higher than forecast due to higher tapping fees.

MONTH - SUBURBAN WASTEWATER	AUGUST 2017						
	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Cash Flow Statement (Indirect)							
Net Income	(273,052)	(142,658)	(29,820)	(52,682)	(130,394)	(243,232)	(220,370)
Add: Depreciation & Amortization	364,694	364,694	327,083	334,133	-	37,611	30,561
Add: Non-Cash Interest Expense	2,734	2,847	-	3,051	(113)	2,734	(317)
Add: Capex Charged to Expense	163	86	25,000	145	77	(24,837)	18
Principal Payments	(26,023)	(39,500)	(93,946)	(42,013)	13,477	67,923	15,990
Investments Converting To Cash	-	-	-	-	-	-	-
New Borrowing	-	-	-	-	-	-	-
Capital Expenditures	(168,672)	(497,147)	(551,083)	(158,761)	328,475	382,411	(9,911)
NET FUND CASH FLOWS	(100,156)	(311,678)	(322,766)	83,874	211,522	222,610	(184,029)

Cash flows were negative but were favorable to forecast on lower capital spending.

B. YTD

YTD - SUBURBAN WASTEWATER	AUGUST 2017						
	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Income Statement							
Operating Revenues	11,236,256	11,195,339	12,107,229	11,910,510	40,917	(870,973)	(674,254)
Operating (Expenses)	(11,700,603)	(11,647,160)	(12,371,576)	(12,371,202)	(53,443)	670,973	670,599
Operating Income	(464,347)	(451,820)	(264,347)	(460,691)	(12,526)	(200,000)	(3,655)
Non-Operating Revenues (Expenses)	827,966	814,084	528,664	1,045,077	13,883	299,302	(217,110)
Income Before Interest Expense	363,620	362,264	264,317	584,385	1,357	99,303	(220,766)
Interest Income	3,129	3,113	79,336	6,224	16	(76,207)	(3,095)
Interest Expense	(143,817)	(144,249)	(567,752)	(137,268)	432	423,935	(6,549)
Capital Contributions	-	-	-	-	-	-	-
NET INCOME	222,932	221,128	(224,099)	453,342	1,805	447,031	(230,410)

For the year, net income is positive and is better than forecast by \$2k and better than budget by \$447k.

Compared to forecast

Operating revenues are favorable but there are no major variances across segments.

Operating expenses are higher than forecast due to lower spending on maintenance services and contract operator costs being more than offset by higher treatment, transportation, and removal costs.

Compared to budget

Operating revenues are down to budget with major unfavorable variances in the Wastewater Treatment Plant for hauler fees, and industrial charges that are partially offset by favorable variances from the signatory group.

Operating expenses are down to budget with most of that coming from lower spending on maintenance services and contract operator costs with some offset from higher treatment & transportation costs.

Non-operating revenues (expenses) are favorable to budget due to higher tapping fees along with lower expensed capital.

YTD - SUBURBAN WASTEWATER Cash Flow Statement (Indirect)	AUGUST 2017						
	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Net Income	222,932	221,128	(224,099)	453,342	1,804	447,031	(230,410)
Add: Depreciation & Amortization	2,917,552	2,917,552	2,616,664	2,673,064	-	300,888	244,488
Add: Non-Cash Interest Expense	22,576	22,776	-	23,797	(200)	22,576	(1,221)
Add: Capex Charged to Expense	681	690	200,000	1,146	(9)	(199,319)	(465)
Principal Payments	(302,610)	(315,999)	(751,568)	(323,502)	13,388	448,958	20,891
Investments Converting To Cash	-	-	-	-	-	-	-
New Borrowing	-	-	-	-	-	-	-
Capital Expenditures	(1,578,087)	(2,177,180)	(4,408,664)	(964,318)	599,093	2,830,577	(613,769)
NET FUND CASH FLOWS	1,283,043	668,967	(2,567,667)	1,863,529	614,076	3,850,710	(580,486)

Adjusting cash flows so far this year for all of the borrowing difference, cash flows are a positive \$1.3m and are \$614k better than forecast and \$3.9m better than budget.

Compared to forecast, cash flows are up due to lower capital spending.

Compared to budget, cash flows are up on higher funds generated by operations along with lower capital spending.

4. CITY DIVISION

A. Month

MONTH - CITY DIVISION Income Statement	AUGUST 2017						
	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Operating Revenues	2,885,524	2,684,708	3,025,222	3,130,680	200,816	(139,698)	(245,156)
Operating (Expenses)	(1,950,608)	(1,872,693)	(1,871,840)	(1,897,980)	(77,915)	(78,768)	(52,629)
Operating Income	934,916	812,015	1,153,382	1,232,700	122,901	(218,466)	(297,784)
Non-Operating Revenues (Expenses)	(132,982)	(1,174,984)	(283,834)	(131,781)	1,042,002	150,852	(1,201)
Income Before Interest Expense	801,934	(362,969)	869,548	1,100,920	1,164,903	(67,614)	(298,985)
Interest Income	23,238	37,335	25,167	316	(14,097)	(1,929)	22,922
Interest Expense	(1,262,941)	(1,262,941)	(1,371,708)	(1,315,458)	-	108,767	52,517
Capital Contributions	-	-	-	-	-	-	-
NET INCOME	(437,769)	(1,588,575)	(476,993)	(214,223)	1,150,806	39,224	(223,546)

Net income for the month was negative but was \$1.1m better than forecast.

Operating revenues were up to forecast on higher water revenues along with higher wastewater revenues. Water revenues were up as a result of higher residential/commercial revenues. Wastewater revenues were up from higher municipal revenues.

Operating expenses were slightly higher than forecast with most of that variances due to higher spending on purchased services.

Non-operating revenues (expenses) were favorable to forecast as lower capital costs expensed were significantly lower and that more than offset small unfavorable variances on tapping fees and project reimbursement revenues.

MONTH - CITY DIVISION	AUGUST 2017						
	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Cash Flow Statement (Indirect)							
Net Income	(437,769)	(1,588,575)	(476,993)	(214,223)	1,150,806	39,224	(223,546)
Add: Depreciation & Amortization	450,000	450,000	466,667	450,000	-	(16,667)	-
Add: Non-Cash Interest Expense	1,262,941	1,262,941	1,371,708	1,315,458	-	(108,767)	(52,517)
Add: Capex Charged to Expense	166,436	1,213,324	658,667	196,415	(1,046,888)	(492,231)	(29,979)
Principal Payments	-	-	-	-	-	-	-
Cash Outlays on Lease & Lease Reserve	-	-	-	-	-	-	-
Investments Converting To Cash	-	-	-	-	-	-	-
New Borrowing	-	-	-	-	-	-	-
Capital Expenditures	(381,609)	(1,337,191)	(889,214)	(515,738)	955,582	507,605	134,129
NET FUND CASH FLOWS	1,059,999	499	1,130,835	1,231,913	1,059,500	(70,836)	(171,914)

Cash flows for the month were positive and were \$1.1m better than forecast. This was driven by lower capital spending.

B. YTD

YTD - CITY DIVISION	AUGUST 2017						
	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Income Statement							
Operating Revenues	21,730,956	21,292,664	20,717,567	20,654,374	438,292	1,013,389	1,076,582
Operating (Expenses)	(14,461,704)	(14,357,008)	(14,974,720)	(13,478,703)	(104,696)	513,016	(983,002)
Operating Income	7,269,252	6,935,656	5,742,847	7,175,672	333,596	1,526,405	93,580
Non-Operating Revenues (Expenses)	(264,881)	(2,799,863)	(2,270,672)	(2,222,890)	2,534,983	2,005,791	1,958,010
Income Before Interest Expense	7,004,371	4,135,793	3,472,175	4,952,781	2,868,578	3,532,196	2,051,590
Interest Income	265,747	298,681	201,336	203,696	(32,933)	64,411	62,051
Interest Expense	(10,103,528)	(10,103,528)	(10,973,664)	(10,523,664)	-	870,136	420,136
Capital Contributions	-	-	-	-	-	-	-
NET INCOME	(2,833,409)	(5,669,054)	(7,300,153)	(5,367,187)	2,835,645	4,466,744	2,533,777

Net income for the year is negative but better than forecast by \$2.8m and better than budget by \$4.5m

Compared to forecast

Operating revenues are up to forecast with water up by \$243k and wastewater up by \$195k. Water is up on higher residential/commercial revenues and wastewater is up on higher municipal revenues.

Operating expenses are slightly higher than forecast on slightly higher purchased services.

Non-operating revenues (expenses) are favorable due to lower capital charged to expense and from higher project reimbursement so far this year.

Compared to budget

Operating revenues are up to budget with water up by \$807k and wastewater up by \$206k. Water is up due to higher residential/commercial revenues. Wastewater is up due to higher residential/commercial revenues as well along with higher hauler revenues.

Operating expenses are lower due to lower materials and supplies costs along with lower equipment purchases.

Non-operating revenues (expenses) are favorable due to lower capital costs charged to expense partially offset by lower tapping fees and lower project reimbursement revenues.

YTD - CITY DIVISION	AUGUST 2017						
Cash Flow Statement (Indirect)	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Net Income	(2,833,409)	(5,669,054)	(7,300,153)	(5,367,187)	2,835,645	4,466,744	2,533,777
Add: Depreciation & Amortization	3,600,000	3,600,000	3,733,336	3,600,000	-	(133,336)	-
Add: Non-Cash Interest Expense	3,579,667	3,579,667	4,449,803	10,523,664	-	(870,136)	(6,943,997)
Add: Capex Charged to Expense	984,437	3,106,591	5,269,336	1,849,415	(2,122,154)	(4,284,899)	(864,978)
Principal Payments	-	-	-	-	-	-	-
Cash Outlays on Lease & Lease Reserve	(252,000)	(252,000)	(256,000)	(250,000)	-	4,000	(2,000)
Investments Converting To Cash	-	-	-	-	-	-	-
New Borrowing	-	-	-	-	-	-	-
Capital Expenditures	(3,483,389)	(4,997,524)	(7,113,712)	(7,555,485)	1,514,135	3,630,323	4,072,096
NET FUND CASH FLOWS	1,595,306	(632,320)	(1,217,390)	2,800,407	2,227,626	2,812,696	(1,205,101)

YTD cash flow is positive and \$2.2m better than forecast and \$2.8m better than budget.

Compared to forecast, cash flows are up on higher cash generated by operations along with lower capital spending.

Compared to budget, cash flows are up on lower capital spending with a partial offset from lower cash generated by operations.

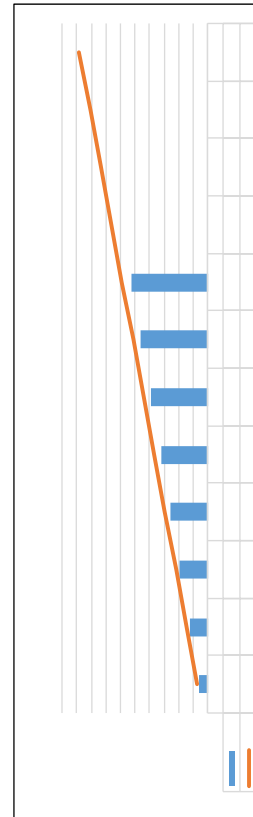
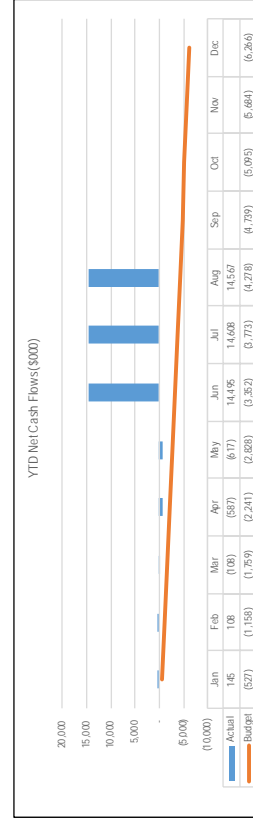
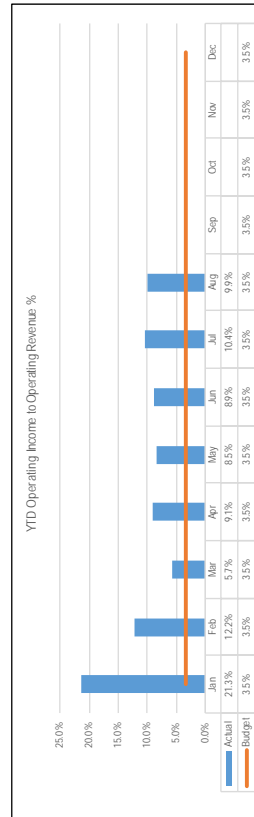
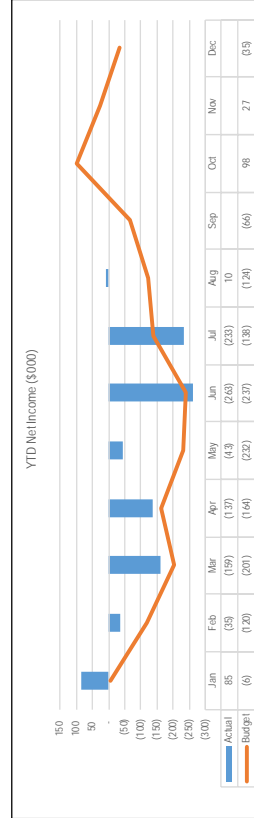
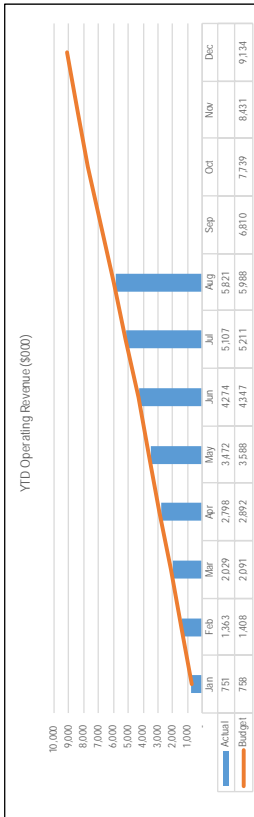
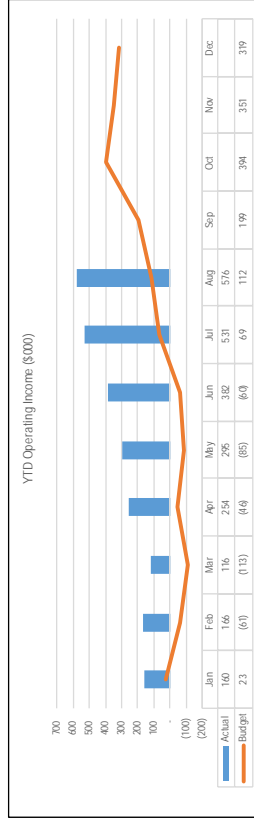
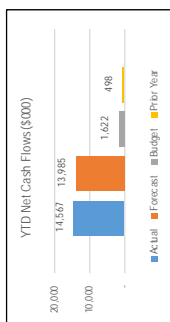
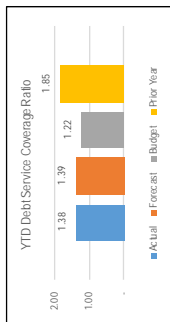
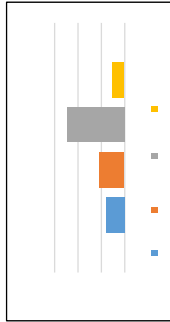
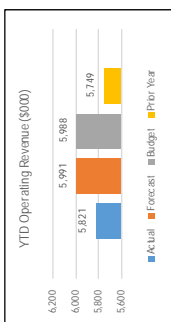
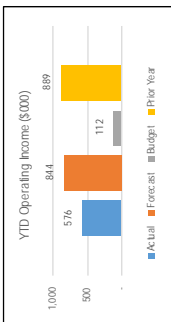
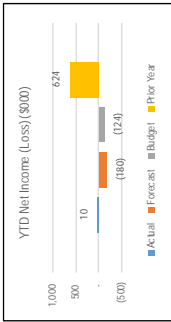
5. FULL YEAR FORECAST

The Q3 Forecast is in the table below for reference.

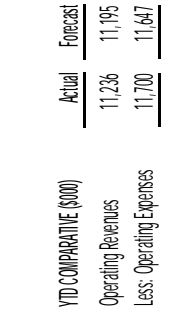
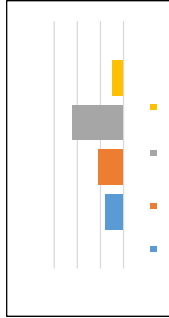
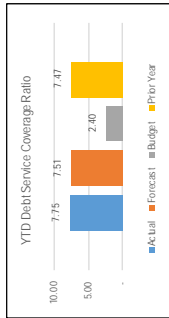
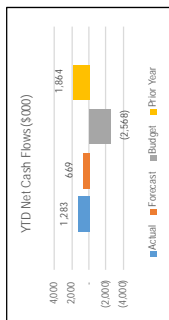
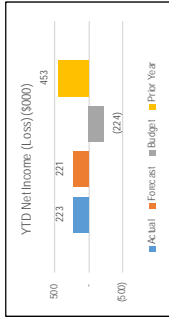
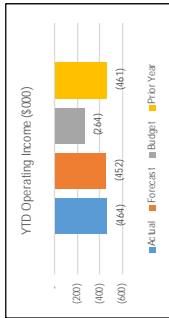
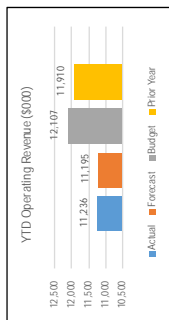
	<u>Forecast</u>	<u>Budget</u>	<u>Last FC</u>	<u>Variance to</u>	
				<u>Budget</u>	<u>Last FC</u>
INCOME STATEMENT					
Suburban Water	(21,018)	(34,673)	(240,736)	13,655	219,718
Suburban Wastewater	326,504	(237,977)	(235,352)	564,481	561,856
City Division	(9,623,562)	(10,217,568)	(10,277,443)	594,006	653,881
TOTAL LCA	<u>(9,318,077)</u>	<u>(10,490,218)</u>	<u>(10,753,531)</u>	<u>1,172,141</u>	<u>1,435,454</u>
CASH FLOW STATEMENT					
Suburban Water	13,118,480	(81,469)	8,746,795	13,199,950	4,371,685
Suburban Wastewater	(501,737)	7,121,675	37,287,310	(7,623,412)	(37,789,047)
City Division	(3,705,185)	(4,479,360)	(4,538,598)	774,175	833,413
TOTAL LCA	<u>8,911,558</u>	<u>2,560,846</u>	<u>41,495,507</u>	<u>6,350,712</u>	<u>(32,583,950)</u>
DEBT SERVICE COVERAGE RATIO					
Suburban Water	1.38	1.27	1.20	0.12	0.19
Suburban Wastewater	7.96	2.45	2.52	5.51	5.44
City Division	1.22	1.21	1.18	0.01	0.04

**DASHBOARD - SUBURBAN WATER
AUGUST 2017**

	Actual	Forecast	Budget	Prior Yr	Variance to
YTD COMPARATIVE (\$000)					
Operating Revenues	5,821	5,991	5,988	5,749	(170)
Less: Operating Expenses	5,245	5,147	5,876	4,860	(89)
Operating Income	576	844	112	889	(269)
Other income (expenses)	(566)	(1,024)	(236)	458	(330)
Net Income	10	(180)	(124)	624	190
Debt Service Coverage Ratio	1.38	1.39	1.22	1.85	(0.01)
Net Cash Flows	14,567	13,985	1,672	498	582
					12,945
					14,069

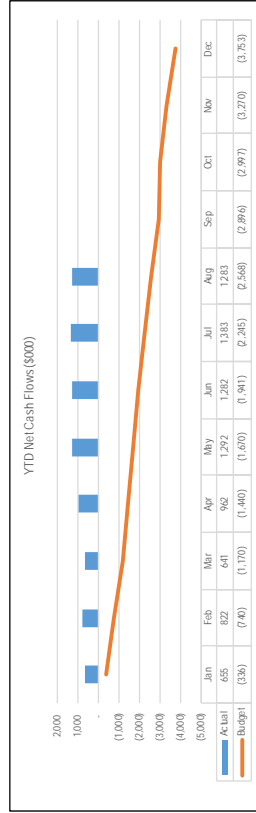
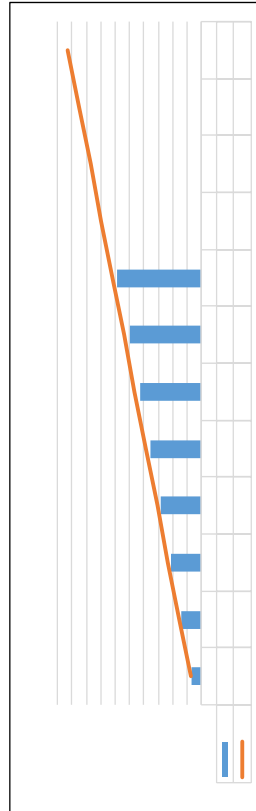
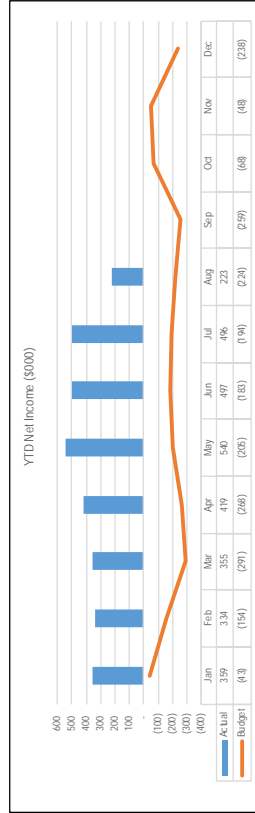
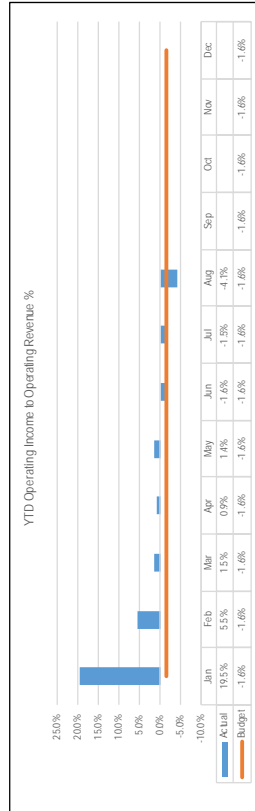
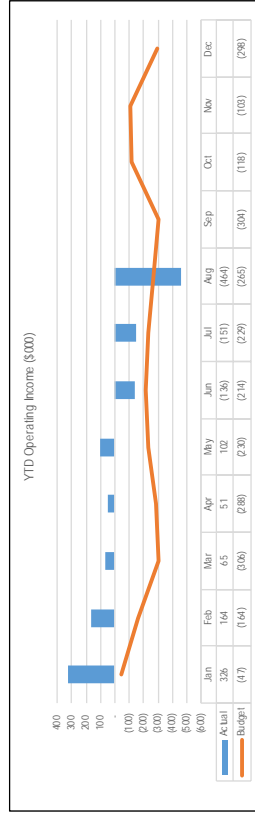
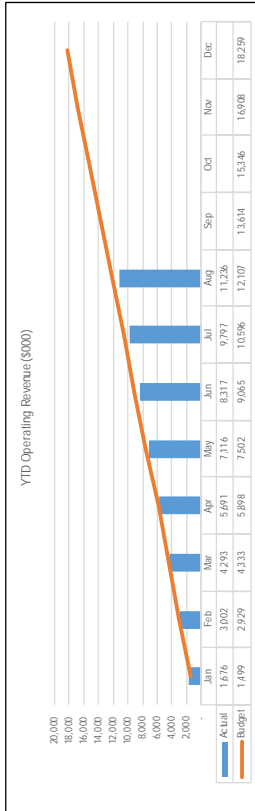


**DASHBOARD - SUBURBAN WASTEWATER
AUGUST 2017**



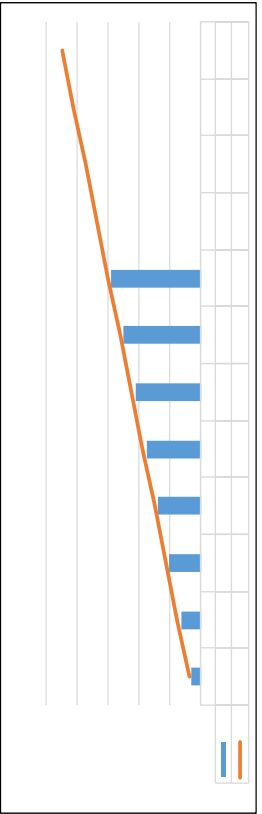
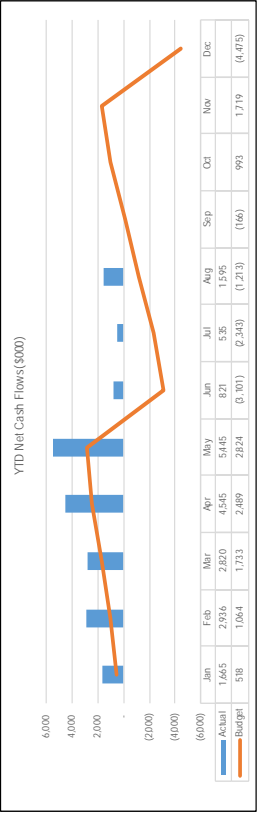
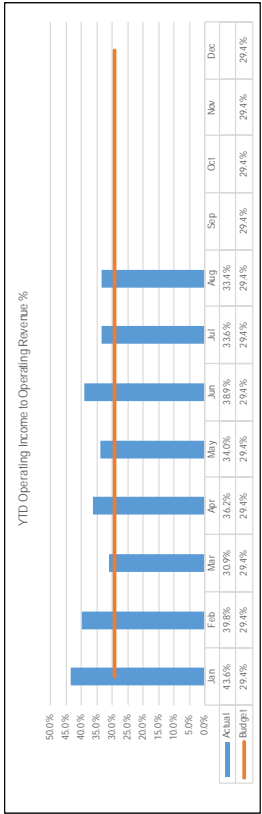
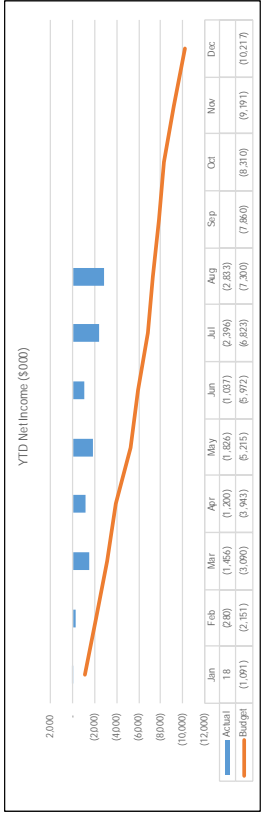
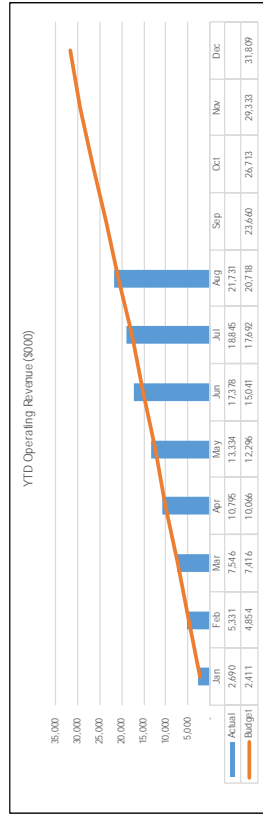
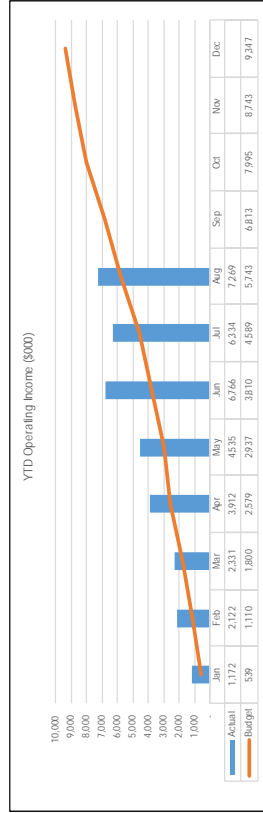
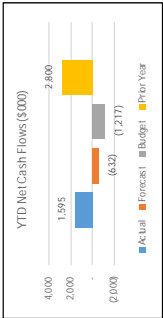
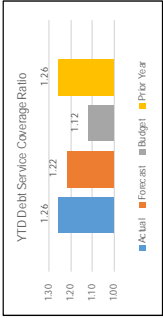
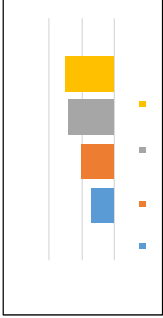
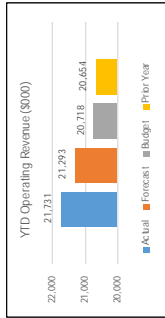
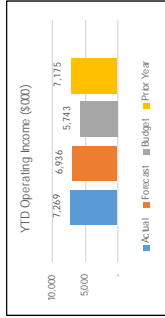
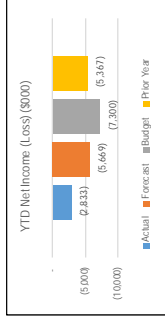
Variance to

	Actual	Forecast	Budget	Prior Year
Operating Revenues	11,236	11,195	12,107	11,910
Less: Operating Expenses	11,700	11,647	12,371	12,371
Operating Income	464	452	264	461
Other income (expenses)	687	673	40	914
Net Income	223	221	224	247
Debt Service Coverage Ratio	7.75	7.51	2.40	7.47
Net Cash Flows	1,283	669	2,568	581



**DASHBOARD - CITY DIVISION
AUGUST 2017**

	Actual	FC Budget	PY Budget	Variance to
YTD COMPARATIVE (\$000)				
Operating Revenues	21,731	21,293	20,654	438
Less: Operating Expenses	14,462	14,357	13,479	(105)
Operating Income	7,269	6,936	7,175	333
Other income (expenses)	(10,102)	(12,605)	(12,542)	2,941
Net Income	(2,833)	(5,669)	(5,367)	2,534
Debt Service Coverage	1.26	1.22	1.12	0.14
Net Cash Flows	1,595	(632)	(1,217)	2,812



LEHIGH COUNTY AUTHORITY SUBURBAN WATER MONTHLY FINANCIAL STATEMENTS											
MONTH - SUBURBAN WATER											
AUGUST 2017											
Income Statement	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var	Actual	Forecast	Budget	Prior Year
Operating Revenues	713,837	761,276	777,499	734,571	(47,439)	(63,662)	(20,734)	5,820,779	5,990,905	5,988,030	5,748,960
Operating Expenses	(668,958)	(772,471)	(734,533)	(540,385)	103,513	65,575	(128,573)	(5,244,680)	(5,417,218)	(5,876,264)	(4,859,453)
Operating Income	44,879	(11,195)	42,966	194,186	56,074	1,913	(149,306)	576,099	573,687	111,766	889,507
Non-Operating Revenues (Expenses)	215,831	63,407	66,167	87,003	153,424	149,664	128,828	423,994	297,258	529,336	401,443
Income Before Interest	260,710	52,212	109,133	281,189	208,498	151,577	(20,479)	1,000,093	870,944	641,102	1,290,949
Interest Income	113,604	14,143	16,667	5,014	99,461	96,937	108,590	161,269	68,143	133,336	37,709
Interest Expense	(130,879)	(117,000)	(112,355)	(87,344)	(13,879)	(18,524)	(43,535)	(1,151,278)	(1,118,870)	(898,840)	(704,995)
Capital Contributions	-	-	-	-	-	-	-	-	-	-	-
NET INCOME	243,435	(50,645)	13,445	198,859	294,080	229,990	44,576	10,084	(179,782)	(124,402)	623,664
MONTH - SUBURBAN WATER											
AUGUST 2017											
Cash Flow Statement (Indirect)	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var	Actual	Forecast	Budget	Prior Year
Net Income	243,435	(50,645)	13,445	198,859	294,080	229,990	44,576	30,084	(179,782)	(124,402)	623,664
Add: Depreciation & Amortization	-	245,832	245,833	245,832	-	(1)	(0)	1,966,656	1,966,656	1,966,664	1,966,656
Add: Non-Cash Interest Expense	(0)	(2,000)	(0)	(0)	2,000	(0)	(0)	-	(4,000)	-	0
Add: Capex Charged to Expense	(180,885)	25,314	8,333	181	(206,199)	(189,218)	(181,066)	5,026	202,509	66,664	3,030
Principal Payments	(152,751)	(139,000)	(152,816)	(123,151)	(13,751)	65	(29,600)	(1,094,413)	(1,080,596)	(1,222,528)	(1,078,846)
Investments Converting To Cash	-	-	-	-	-	-	-	-	-	-	-
New Borrowing	-	-	-	-	-	-	-	15,292,006	15,292,006	5,900,000	-
Capital Expenditures	(196,719)	(426,467)	(620,583)	(187,912)	229,748	423,864	(8,807)	(1,612,005)	(2,211,730)	(4,964,664)	(1,016,330)
NET FUND CASH FLOWS	(41,088)	(346,966)	(505,788)	133,808	305,878	464,700	(174,897)	14,567,354	13,985,063	1,621,734	498,174
MONTH - SUBURBAN WATER											
AUGUST 2017											
Cash Flow Statement (Direct)	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var	Actual	Forecast	Budget	Prior Year
Operating Revenues	713,837	761,276	777,499	734,571	(47,439)	(63,662)	(20,734)	5,820,779	5,990,905	5,988,030	5,748,960
Operating Expenses (Ex Depreciation)	(493,126)	(526,639)	(488,700)	(294,553)	103,513	65,574	(128,573)	(3,278,024)	(3,450,562)	(3,909,600)	(2,892,797)
Interest Income	113,604	14,143	16,667	5,014	99,461	96,937	108,590	161,269	68,143	133,336	37,709
Cash Available For Debt Service	404,315	248,780	305,466	445,032	155,535	98,849	(40,717)	2,704,024	2,608,486	2,211,766	2,893,872
Interest Payments	(130,879)	(119,000)	(112,355)	(87,344)	(11,879)	(18,524)	(43,535)	(1,151,278)	(1,122,870)	(898,840)	(704,995)
Principal Payments	(152,751)	(139,000)	(152,816)	(123,151)	(13,751)	65	(29,600)	(1,094,413)	(1,080,596)	(1,222,528)	(1,078,846)
Net Cash Available After Debt Service	120,685	(9,220)	40,295	234,537	129,905	80,390	(113,851)	458,333	405,021	90,398	1,110,032
Non-Operating Revenues (Expenses)	215,831	63,407	66,167	87,003	153,424	149,664	128,828	423,994	297,258	529,336	401,443
Add: Capex Charged to Expense	(180,885)	25,314	8,333	181	(206,199)	(189,218)	(181,066)	5,026	202,509	66,664	3,030
Less: Project Reimbursement	-	(19,233)	(27,833)	-	19,233	27,833	-	(25,397)	(48,865)	(22,664)	-
Non-Cash Working Capital Changes	-	-	-	-	-	-	-	-	-	-	-
Net Cash Available For Capital	155,631	60,268	86,962	321,720	95,363	68,669	(166,090)	861,957	855,924	463,734	1,514,504
Project Reimbursement	-	19,233	27,833	-	(19,233)	(27,833)	-	25,397	48,863	22,664	-
Capital Contributions	-	-	-	-	-	-	-	-	-	-	-
Investments Converting To Cash	-	-	-	-	-	-	-	-	-	-	-
New Borrowing	-	-	-	-	-	-	-	15,292,006	15,292,006	5,900,000	-
Capital Expenditures	(196,719)	(426,467)	(620,583)	(187,912)	229,748	423,864	(8,807)	(1,612,005)	(2,211,730)	(4,964,664)	(1,016,330)
NET FUND CASH FLOWS	(41,088)	(346,966)	(505,788)	133,808	305,878	464,700	(174,897)	14,567,354	13,985,063	1,621,734	498,174
DEBT SERVICE COVERAGE RATIO											
Total Cash Available For Debt Service	499,261	318,268	352,133	532,216	316,657	241,495	128,828	3,107,647	3,059,930	2,585,102	3,298,344
Debt Service	283,630	288,000	265,171	210,495	265,171	210,495	181,066	2,245,691	2,203,465	2,121,568	1,783,841
DSCR	1.55	1.23	1.33	2.53	1.23	1.33	1.85	1.38	1.39	1.22	1.85

LEHIGH COUNTY AUTHORITY SUBURBAN WASTEWATER MONTHLY FINANCIAL STATEMENTS															
MONTH - SUBURBAN WASTEWATER															
	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var		Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Income Statement															
Operating Revenues	1,438,968	1,434,244	1,511,596	1,457,691	4,724	(72,628)	(18,723)		11,236,256	11,195,339	12,107,229	11,910,510	40,917	(870,973)	(674,254)
Operating (Expenses)	(1,752,309)	(1,597,270)	(1,546,447)	(1,764,899)	(155,039)	(205,862)	12,590		(11,700,603)	(11,647,160)	(12,371,576)	(12,371,202)	(59,443)	670,973	670,599
Operating Income	(313,341)	(163,026)	(34,851)	(307,208)	(150,315)	(278,490)	(6,133)		(464,347)	(451,820)	(264,347)	(460,691)	(12,526)	(200,000)	(3,655)
Non-Operating Revenues (Expenses)	57,663	38,010	66,083	271,221	19,653	(6,420)	(213,528)		827,966	814,084	528,664	1,045,077	13,883	299,302	(217,110)
Income Before Interest Expense	(255,678)	(125,016)	31,232	(35,987)	(130,662)	(286,910)	(219,691)		363,620	362,264	264,317	584,385	1,357	99,303	(220,766)
Interest Income	394	389	9,917	808	5	(9,523)	(414)		3,129	3,113	79,336	6,224	16	(76,207)	(3,095)
Interest Expense	(17,768)	(18,031)	(70,969)	(17,502)	263	53,201	(266)		(143,817)	(144,249)	(567,752)	(137,268)	432	423,935	(6,549)
Capital Contributions	-	-	-	-	-	-	-		-	-	-	-	-	-	-
NET INCOME	(273,052)	(142,658)	(29,820)	(52,682)	(130,394)	(245,232)	(220,370)		222,932	221,128	(224,059)	453,342	1,805	447,031	(230,410)
MONTH - SUBURBAN WASTEWATER															
Cash Flow Statement (Indirect)															
Net Income	(273,052)	(142,658)	(29,820)	(52,682)	(130,394)	(245,232)	(220,370)		222,932	221,128	(224,059)	453,342	1,804	447,031	(230,410)
Add: Depreciation & Amortization	364,694	364,694	327,083	334,133	(113)	37,611	303,561		2,917,552	2,917,552	2,616,664	2,673,064	(200)	300,888	244,488
Add: Non-Cash Interest Expense	2,734	2,847	-	3,051	(113)	2,734	(1,317)		22,576	22,776	-	23,797	(200)	22,576	(1,221)
Add: Capex Charged to Expense	103	86	25,000	145	77	(24,837)	38		681	690	200,000	1,146	(9)	(393,319)	(465)
Principal Payments	(26,023)	(39,500)	(93,946)	(42,013)	13,477	67,923	15,990		(302,610)	(315,999)	(751,568)	(323,502)	13,388	448,958	20,891
Investments Converting To Cash	-	-	-	-	-	-	-		-	-	-	-	-	-	-
New Borrowing	-	-	(551,083)	(158,761)	328,475	382,411	(9,911)		(1,578,087)	(2,177,180)	(4,408,664)	(964,318)	599,093	2,830,577	(613,769)
Capital Expenditures	(168,672)	(497,147)	(322,766)	83,874	211,522	222,610	(184,029)		1,283,043	668,967	(2,567,667)	1,863,529	614,076	3,850,710	(580,486)
NET FUND CASH FLOWS	(100,156)	(311,678)	(322,766)	83,874	211,522	222,610	(184,029)		1,283,043	668,967	(2,567,667)	1,863,529	614,076	3,850,710	(580,486)
MONTH - SUBURBAN WASTEWATER															
Cash Flow Statement (Direct)															
Operating Revenues	1,438,968	1,434,244	1,511,596	1,457,691	4,724	(72,628)	(18,723)		11,236,256	11,195,339	12,107,229	11,910,510	40,917	(870,973)	(674,254)
Operating Expenses (Ex Depreciation)	(1,387,615)	(1,232,576)	(1,219,364)	(1,430,766)	(155,039)	(168,251)	43,151		(8,783,051)	(8,729,608)	(9,754,912)	(9,698,138)	(53,443)	971,861	915,087
Interest Income	394	389	9,917	808	5	(9,523)	(414)		3,129	3,113	79,336	6,224	16	(76,207)	(3,095)
Cash Available For Debt Service	51,747	202,057	302,149	27,733	(150,310)	(250,402)	24,014		2,456,334	2,468,845	2,431,653	2,218,597	(12,511)	24,681	237,738
Interest Payments	(15,033)	(15,184)	(70,969)	(14,451)	151	55,936	(582)		(121,242)	(121,473)	(567,752)	(113,471)	232	446,510	(7,770)
Principal Payments	(26,023)	(39,500)	(93,946)	(42,013)	13,477	67,923	15,990		(302,610)	(315,999)	(751,568)	(323,502)	13,388	448,958	20,891
Net Cash Available After Debt Service	10,690	147,373	137,234	(28,732)	(136,683)	(126,544)	39,422		2,032,482	2,031,373	1,112,333	1,781,624	1,109	920,149	250,858
Non-Operating Revenues (Expenses)	57,663	38,010	66,083	271,221	19,653	(6,420)	(213,528)		827,966	814,084	528,664	1,045,077	13,883	299,302	(217,110)
Add: Capex Charged to Expense	163	86	25,000	145	77	(24,837)	38		681	690	200,000	1,146	(9)	(393,319)	(465)
Less: Project Reimbursement	-	-	-	-	-	-	-		-	-	-	-	-	-	-
Non-Cash Working Capital Changes	-	-	-	-	-	-	-		-	-	-	-	-	-	-
Net Cash Available For Capital	68,516	185,469	228,317	242,634	(116,953)	(159,801)	(174,118)		2,861,130	2,846,147	1,840,957	2,827,847	14,983	1,020,133	33,283
Project Reimbursement	-	-	-	-	-	-	-		-	-	-	-	-	-	-
Capital Contributions	-	-	-	-	-	-	-		-	-	-	-	-	-	-
Investments Converting To Cash	-	-	-	-	-	-	-		-	-	-	-	-	-	-
New Borrowing	-	-	-	-	-	-	-		-	-	-	-	-	-	-
Capital Expenditures	(168,672)	(497,147)	(551,083)	(158,761)	328,475	382,411	(9,911)		(1,578,087)	(2,177,180)	(4,408,664)	(964,318)	599,093	2,830,577	(613,769)
NET FUND CASH FLOWS	(100,156)	(311,678)	(322,766)	83,874	211,522	222,610	(184,029)		1,283,043	668,967	(2,567,667)	1,863,529	614,076	3,850,710	(580,486)
DEBT SERVICE COVERAGE RATIO															
Total Cash Available For Debt Service	109,573	240,153	393,232	299,099					3,284,982	3,283,619	3,160,317	3,264,820			
Debt Service	41,057	54,684	164,915	56,464					423,852	437,472	1,319,320	436,973			
DSCR	2.67	4.39	2.38	5.30					7.75	7.51	2.40	7.47			

LEHIGH COUNTY AUTHORITY												
CITY DIVISION												
MONTHLY FINANCIAL STATEMENTS												
MONTH - CITY DIVISION												
	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var	Income Statement	Actual	Forecast	Budget	Prior Year
Operating Revenues	2,855,524	2,684,708	3,025,222	3,130,680	200,816	(138,698)	(245,156)	Operating Revenues	21,730,956	21,292,664	20,717,367	20,654,374
Operating Expenses	(1,950,609)	(1,872,693)	(1,871,840)	(1,897,960)	(77,935)	(78,708)	(52,629)	Operating (Expenses)	(14,463,704)	(14,357,008)	(14,974,720)	(13,478,703)
Operating Income	934,916	812,015	1,153,382	1,232,700	122,901	(218,466)	(297,784)	Operating Income	7,269,252	6,935,656	5,742,647	7,175,672
Non-Operating Revenues (Expenses)	(132,982)	(1,174,984)	(283,834)	(131,781)	1,042,002	150,852	(1,201)	Non-Operating Revenues (Expenses)	(264,881)	(2,799,863)	(2,270,672)	(2,222,890)
Income Before Interest Expense	801,934	(362,969)	869,548	1,100,920	1,165,903	(67,614)	(298,985)	Income Before Interest Expense	7,004,371	4,135,793	3,472,175	4,952,781
Interest Income	23,238	37,335	25,167	316	(14,097)	(1,929)	22,922	Interest Income	265,747	298,681	201,336	203,696
Interest Expense	(1,262,941)	(1,262,941)	(1,371,708)	(1,315,458)	-	108,767	52,517	Interest Expense	(10,103,528)	(10,103,528)	(10,973,664)	(10,523,664)
Capital Contributions	-	-	-	-	-	-	-	Capital Contributions	-	-	-	-
NET INCOME	(437,769)	(1,588,575)	(476,993)	(214,223)	1,150,806	39,224	(223,546)	NET INCOME	(2,833,409)	(5,669,054)	(7,300,153)	(5,367,187)
MONTH - CITY DIVISION												
	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var	Cash Flow Statement (Indirect)	Actual	Forecast	Budget	Prior Year
Net Income	(437,769)	(1,588,575)	(476,993)	(214,223)	1,150,806	39,224	(223,546)	Net Income	(2,833,409)	(5,669,054)	(7,300,153)	(5,367,187)
Add: Depreciation & Amortization	450,000	450,000	466,667	450,000	-	(16,667)	3,000,000	Add: Depreciation & Amortization	3,600,000	3,600,000	3,733,336	3,600,000
Add: Non-Cash Interest Expense	1,262,941	1,262,941	1,371,708	1,315,458	-	(108,767)	(52,517)	Add: Non-Cash Interest Expense	3,579,667	3,579,667	4,449,803	10,523,664
Add: Capex Charged to Expense	166,436	1,213,324	658,667	196,415	(1,046,888)	(492,231)	(29,979)	Add: Capex Charged to Expense	984,437	3,106,591	5,269,336	1,849,415
Principal Payments	-	-	-	-	-	-	-	Principal Payments	(252,000)	(252,000)	(256,000)	(250,000)
Cash Outlays on Lease & Lease Reserve	-	-	-	-	-	-	-	Cash Outlays on Lease & Lease Reserve	(252,000)	(252,000)	(256,000)	(250,000)
Investments Converting To Cash	-	-	-	-	-	-	-	Investments Converting To Cash	-	-	-	-
New Borrowing	-	-	-	-	-	-	-	New Borrowing	-	-	-	-
Capital Expenditures	(351,609)	(1,337,191)	(889,214)	(515,738)	955,582	507,605	134,129	Capital Expenditures	(3,483,389)	(4,997,524)	(7,113,712)	(7,555,485)
NET FUND CASH FLOWS	1,059,999	499	1,130,835	1,231,913	1,059,500	(70,836)	(171,914)	NET FUND CASH FLOWS	1,595,306	(632,320)	(1,217,390)	2,800,407
MONTH - CITY DIVISION												
	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var	Cash Flow Statement (Direct)	Actual	Forecast	Budget	Prior Year
Operating Revenues	2,855,524	2,684,708	3,025,222	3,130,680	200,816	(138,698)	(245,156)	Operating Revenues	21,730,956	21,292,664	20,717,367	20,654,374
Operating Expenses (Ex Depreciation)	(1,500,608)	(1,422,693)	(1,405,173)	(1,447,960)	(77,935)	(95,435)	(52,629)	Operating Expenses (Ex Depreciation)	(10,861,704)	(10,757,008)	(11,241,384)	(9,878,703)
Interest Income	23,238	37,335	25,167	316	(14,097)	(1,929)	22,922	Interest Income	265,747	298,681	201,336	203,696
Cash Available For Debt Service	1,408,154	1,299,350	1,645,216	1,683,016	108,804	(237,062)	(274,862)	Cash Available For Debt Service	11,134,999	10,834,337	9,677,519	10,979,368
Interest Payments	-	-	-	-	-	-	-	Interest Payments	(6,523,861)	(6,523,861)	(6,523,861)	(6,523,861)
Principal Payments	-	-	-	-	-	-	-	Principal Payments	-	-	-	-
Net Cash Available For Debt Service	1,408,154	1,299,350	1,645,216	1,683,016	108,804	(237,062)	(274,862)	Net Cash Available For Debt Service	4,611,138	4,310,476	3,153,658	10,979,368
Non-Operating Revenues (Expenses)	(132,982)	(1,174,984)	(283,834)	(131,781)	1,042,002	150,852	(1,201)	Non-Operating Revenues (Expenses)	(264,881)	(2,799,863)	(2,270,672)	(2,222,890)
Add: Capex Charged to Expense	166,436	1,213,324	658,667	196,415	(1,046,888)	(492,231)	(29,979)	Add: Capex Charged to Expense	984,437	3,106,591	5,269,336	1,849,415
Less: Project Reimbursement	-	(20,599)	(327,750)	-	20,599	327,750	-	Less: Project Reimbursement	(558,736)	(164,796)	(2,622,000)	(2,063,264)
Cash Outlays on Lease & Lease Reserve	-	-	-	-	-	-	-	Cash Outlays on Lease & Lease Reserve	(252,000)	(252,000)	(256,000)	(250,000)
Non-Cash Working Capital Changes	-	-	-	-	-	-	-	Non-Cash Working Capital Changes	-	-	-	-
Net Cash Available For Capital	1,441,608	1,317,091	1,602,299	1,747,651	124,517	(250,691)	(306,043)	Net Cash Available For Capital	4,519,959	4,200,408	3,274,322	10,355,892
Project Reimbursement	-	20,599	327,750	-	(20,599)	(327,750)	-	Project Reimbursement	558,736	164,796	2,622,000	-
Capital Contributions	-	-	-	-	-	-	-	Capital Contributions	-	-	-	-
Investments Converting To Cash	-	-	-	-	-	-	-	Investments Converting To Cash	-	-	-	-
New Borrowing	-	-	-	-	-	-	-	New Borrowing	-	-	-	-
Capital Expenditures	(351,609)	(1,337,191)	(889,214)	(515,738)	955,582	507,605	134,129	Capital Expenditures	(3,483,389)	(4,997,524)	(7,113,712)	(7,555,485)
NET FUND CASH FLOWS	1,059,999	499	1,130,835	1,231,913	1,059,500	(70,836)	(171,914)	NET FUND CASH FLOWS	1,595,306	(632,320)	(1,217,390)	2,800,407
DEBT SERVICE COVERAGE RATIO												
Net Cash Available For Debt Service	1,399,608	1,275,091	1,650,299	1,724,101	-	-	-	Net Cash Available For Debt Service	10,959,820	10,640,269	9,718,833	10,956,585
Debt Service	1,087,310	1,087,310	1,087,310	1,031,060	-	-	-	Debt Service	8,698,480	8,698,480	8,698,480	8,698,480
DSCR	1.29	1.17	1.52	1.67	-	-	-	DSCR	1.26	1.22	1.12	1.26

Lehigh County Authority

System Operations Review - August 2017

Presented: September 25, 2017

<u>Critical Activities</u>	<u>System</u>	<u>Description</u>	<u>Aug-17</u>	<u>2017-to-Date</u>	<u>2016 Totals</u>	<u>Permit</u>
			<u>Daily Avg (MGD)</u>	<u>Daily Avg (MGD)</u>	<u>Daily Avg (MGD)</u>	<u>Daily Max (MGD)</u>
Water Production	Allentown	Total	21.12	21.41	20.41	39.0
		Schantz Spring	6.30	6.37	5.91	9.0
		Crystal Spring	3.88	3.90	3.86	4.0
		Little Lehigh Creek	10.94	11.09	10.46	30.0
		Lehigh River	0.00	0.05	0.18	28.0
	Central Lehigh	Total	9.83	9.42	9.27	19.04 MGD Avg
		Feed from Allentown	7.02	7.02	5.99	7.0 MGD Avg 10.5 MGD Max
		Well Production (CLD)	2.81	2.40	3.28	8.54 MGD Avg
		Sum of all (12) other Suburban Water Systems	0.18	0.18	0.19	1.71 Sum of all wells
Wastewater Treatment	Kline's Island	33.19	31.58	29.67	40.0	
	Pretreatment Plant	4.87	4.47	4.33	5.75 (design capacity)	
	Sum of all (5) other Suburban WW Systems	0.18	0.17	0.17	0.36	
			<u>Aug-17</u>	<u>2017-to-Date</u>	<u>2016 Totals</u>	
Precipitation Totals (inches)			8.45	39.14	36.82	
Compliance Reports Submitted to Allentown			21	209	269	
Notices of Violation (NOVs)	(Allentown + Suburban)		0	0	3	
Sanitary Sewer Overflows (SSOs)/Bypasses	(Allentown + Suburban)		1	19	16	
Main Breaks Repaired	Allentown		0	12	19	
	Suburban		1	6	11	
Customer Service Phone Inquiries	(Allentown + Suburban)		2,396	18,110	28,099	
Water Shutoffs for Non-Payment	(Allentown + Suburban)		124	1,148	1,685	
Injury Accidents	(Allentown + Suburban)		0	5	10	
Emergency Declarations	Allentown		0	(2) @ \$51,235	(2) @ \$87,079	
	Suburban		0	(1) @ \$72,554	(1) @ \$33,495	

Significant Repairs:

KIWWTP Primary Digester #1 (cover replacement) is scheduled to be back on-line by the end of September. Permanent abandonments of six (6) suburban system wells are currently being coordinated. Repairs and/or restorations for these sites were not feasible.

Description of NOVs and/or SSOs:

There was one (1) bypass that occurred at Heidelberg Heights WWTP on 8/12/2017. This bypass occurred as a result of heavy rainfall. There were no NOVs or SSOs for either Allentown or Suburban during August 2017.

Other Highlights:

In the Central Lehigh Division, there are several on-going projects that are new to the system. Project summaries are presented below.

Valve and Hydrant Program - All 1,515 fire hydrants in the CLD have been exercised and serviced as of 8/29/2017. All hydrants have been flow tested and site confirmation has been done with GPS. 812 work orders (WO's) were created as a result of the inspections and servicing. The vast majority of these WO's were for painting and for defenders that either need to be installed or repaired. There were twenty (20) "high priority" WO's for hydrants needing immediate attention, including several that were not functional at all. Nearly all of the high priority WO's were due to partially/fully frozen stems or caps. Several leaking hydrants were also addressed.

The valve maintenance work began in mid-September. The CLD currently has a total of 5,666 water valves. This includes 5,523 gate valves ranging in size from 1"-24" and 143 butterfly valves ranging in size from 2"-24". Valvetek will be operating and collecting data on 1,889 valves annually over the three year contract.

One example of a positive result of the hydrant maintenance happened in Valley West Estates. At the lowest elevation of a large subdivision, there was a hydrant that apparently had been hit by a car. Unknown to us, that hydrant had a broken Traffic Breakaway Ring that can't be seen from the outside. During the inspection and flow testing, we also experienced multiple cycling of the fire pumps at the Valley West Pump Station, which resulted in an extreme pressure surge at the hydrant. The broken Breakaway Ring slammed shut, creating a local water hammer that blew out (16) nearby water meters. LCA staff has adjusted the time delays of the fire pumps so they ramp up quicker and reduce cycling and the hydrant was totally replaced. If this had occurred during an actual fire, there would have been serious water supply problems in that area to adequately address the fire.

Curb Box Locating using GPS - Valvetek has been contracted to locate ~18,000 curb boxes in the Central Lehigh Division. The project started on 7/31/2017 and as of 9/14/2017, 4470 (24%) have been located. Another 305 boxes have been returned to LCA as non-locates, creating work orders for LCA staff to manually find. At present, 1171 WO's have been generated to locate or repair existing boxes. This work is to be completed by late December 2017 or early January 2018.

Hydrant Flushing Program - The hydrant flushing program ended in August due to lack of available manpower. At that point, 948/1,515 (63%) of the hydrants had been worked. Flushing will resume in 2018 and will become an annual project.

Watershed Flow Monitoring Program - FYBR, Inc will be installing a flow meter on the Little Lehigh bridge on Cherry Lane during the week of 9/18. This will be a pilot program so we can evaluate some of their new equipment. The pilot program is being provided to us free of charge. Among other goals, we need to verify that their equipment properly gathers the data we need and the ability to transmit all of the data wirelessly back to LCA headquarters must also be confirmed. Subsequently, we will develop costs for full implementation of six (6) new surface water flow monitoring stations and for three (3) new groundwater monitoring stations.