



LEHIGH COUNTY AUTHORITY

LCA Main Office:
1053 Spruce Road
Wescosville, PA 18106
610-398-2503

Agendas & Minutes Posted:
www.lehighcountyauthority.org

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BOARD MEETING AGENDA – July 24, 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

- *July 10, 2017 Board meeting minutes*

4. Public Comments

5. Action / Discussion Items:

FINANCE AND ADMINISTRATION

WATER

- *Allentown Division – Schantz Spring Main Replacement (blue)*
- *Suburban Division – Crestwood Alternate Water Supply (tan)*
- *Suburban Division – Well Abandonments (green)*
- *Suburban Division – Water Main Replacement Program Cycle 3 (yellow)*

WASTEWATER

6. Monthly Project Updates / Information Items (1st Board meeting per month)
7. Monthly Financial Review (2nd Board meeting per month) – **June 2017 report attached**
8. Monthly System Operations Overview (2nd Board meeting per month) – **June 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.

August 14, 2017

August 28, 2017

September 11, 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

July 10, 2017

The Regular Meeting of the Lehigh County Authority was called to order at 12:04 p.m. on Monday, July 10, 2017, Chairman Nagle presiding. Other Members present at the commencement of the meeting were: Linda Rosenfeld, Richard Bohner, Norma Cusick, Scott Bieber and Deana Zosky. Authority Staff present were Liesel Gross, Brad Landon, Chuck Volk, Ed Klein, Pat Mandes, Chris Moughan, John Parsons, Susan Sampson, Mark Bowen, and Lisa Miller.

REVIEW OF AGENDA

Chairman Nagle announced that today's Board meeting is not being videotaped and streaming live due to technical difficulties.

Liesel Gross noted there are no Agenda changes but there will be an Executive Session regarding property acquisition. Ms. Gross introduced Mark Bowen, Geographic Information System (GIS) Specialist for the Authority, who will be giving a presentation at today's meeting. Ms. Gross also introduced Susan Sampson who is starting her first day with the Authority as Customer Care & Communications Manager.

APPROVAL OF MINUTES

June 26, 2017 Regular Meeting Minutes

On a motion by Linda Rosenfeld, seconded by Deana Zosky, the Board approved the Minutes of the June 26, 2017 meeting (5-0). Richard Bohner abstained.

PUBLIC COMMENTS

None.

ACTION AND DISCUSSION ITEMS

LCA Strategic Goals & Key Performance Indicators

Liesel Gross reviewed the memo provided to the Board regarding a 2nd quarter update to the 2017 Goals and Measures along with a PowerPoint presentation. Using the Effective Utility Management (EUM) framework, four primary areas were identified as Financial Viability, Infrastructure Stability, Product Quality, and Employee Leadership & Development.

Kevin Baker arrived at 12:11 p.m.

Ms. Gross summarized the eleven preliminary measures and explained the definition and description of the measures, how they are related to the EUM strategies, and an implementation plan. Chris Moughan explained that he has been forming internal teams to review the key performance indicators that have been selected and to develop the definitions and datasets to be used for each measure.

In response to Board members' questions related to the Authority's knowledge management program, Liesel Gross explained that significant work has been done to assess the risk of knowledge loss due to retirements and that plans to address some of those risks still need to be developed. Some of the work will involve recruiting and training new employees, while other risks are being addressed through technology improvements where historical knowledge is being codified into databases for asset information and maintenance histories.

Deana Zosky commented on the number of key performance indicators and feels there are too many and the Authority should focus on identifying a small number of leading indicators that will impact the overall performance in strategic areas. She also stated that while the EUM framework may be an industry-accepted set of strategies, the staff should be sure that the strategies selected are appropriate for the Authority.

Geographic Information System (GIS) Field Application

Mark Bowen, Geographic Information System (GIS) Specialist for the Authority, gave a demonstration of the ArcGIS mobile application that was developed specifically for the Authority. The program is designed to optimize office and field operations by providing the ability to track, manage and visualize daily operations all in one place. The ArcGIS program uses maps, as-built plans, and easements allowing field staff the ability to collect and record asset information in the field. The mobile application was developed in-house by Mr. Bowen and another GIS employee, Brendan Rusbatch, who were able to address the field employees' needs directly, saving the Authority a significant expense to develop the software through a vendor.

Deana Zosky voiced her concern over security and how to minimize any risk to the Authority's assets. Chris Moughan said that security is a priority and he is actively involved with Department of Homeland Security protocol processes using the security actions and options tailored toward utilities.

The Board thanked Mark for his presentation and expressed appreciation for the opportunity to see the work of Authority employees.

Suburban Water Division – Curb Box Location Program

Chris Moughan provided an overview of the project, which includes the geo-locating of approximately 18,000 curb boxes in the Suburban Water Division. All the collected data will then be transformed and customized so it can be imported into the Authority's mobile Geographic Information System (GIS) and will be available to Authority field personnel working anywhere within the water system. Mr. Moughan is asking for approval of the Capital Project Authorization in the amount of \$168,000.00 which includes the Professional Services Authorization to ValveTek in the amount of \$153,000.00.

On a motion by Linda Rosenfeld, seconded by Norma Cusick, the Board approved the Capital Project Authorization in the amount of \$168,000.00 which includes the Professional Services Authorization to ValveTek in the amount of \$153,000.00 (7-0).

MONTHLY PROJECT UPDATES/INFORMATION ITEMS

Liesel Gross brought to the attention of the Board numerous items listed in the report for upcoming meetings in July and August.

Scott Bieber inquired about the Suburban Division – Well Abandonments project that is listed for the July 24, 2017 meeting and asked for details on the water quality concerns cited. Liesel Gross and John Parsons explained that the Authority stopped using these wells about 20 years ago due to being classified as under the influence of surface water and therefore requiring additional treatment, and this project is needed to officially complete the well abandonment process.

Deana Zosky asked that a capital project spending summary be presented alongside the capital plan. Ms. Zosky inquired about the project regarding the Suburban Division – Rt. 309 Crossing at Sand Spring Road and who is paying for it. Chuck Volk replied that the Authority is because a conduit was placed there at the time the intersection was rebuilt a few years ago for this exact purpose. Ms. Zosky also asked what the final outcome was regarding the Allentown Division – Kline's Island WWTP Phase 1 AO improvements: Conceptual Design Development since a final determination was to be made in May 2017. Mr. Volk replied that a final determination has not yet been provided by the City of Allentown. Ms. Zosky also asked for an update on the Administrative Order (AO) work. Liesel Gross replied the Authority will prepare for a discussion with the Board at the August 14 meeting.

STAFF COMMENTS

None.

SOLICITOR'S COMMENTS

None.

PUBLIC COMMENTS / OTHER COMMENTS

None.

Chairman Nagle called a break at 1:13 p.m. The meeting reconvened at 1:16 p.m.

EXECUTIVE SESSION

Chairman Nagle called an Executive Session at 1:16 p.m. to discuss property acquisition.

The Executive Sessions ended at 1:39 p.m.

ADJOURNMENT

There being no further business, the Chairman adjourned the meeting at 1:39 p.m.

Richard H. Bohner
Secretary

**Lehigh County Authority**

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(610)398-2503 * FAX (610)398-8413 * Email: service@lehighcountyauthority.org

MEMORANDUM

Date: July 17, 2017

To: Lehigh County Authority Board

From: Jason Peters, Capital Project Coordinator

Subject: Allentown Division- Schantz Spring Main Replacement
Construction Phase

MOTIONS /APPROVALS REQUESTED:

No.	Item	Amount
1	<u>Capital Project Authorization:</u> Construction Phase	\$2,070,458
2 *	<u>Contract Award:</u> General Construction – Michels Civil a Division of Michels Corporation	\$1,688,158
3 *	<u>Professional Services Authorization:</u> Construction Engineering, Management and Inspection Services Amendment No. 1 – <i>Gannett Fleming Inc.</i>	\$130,300

(*) Included in Capital Project Authorization

PROJECT OVERVIEW:

This project involves the replacement of approximately 2,000 linear feet of 1903 vintage 30-inch diameter water main that conveys the water from Schantz Spring to the Water Filtration Plant (WFP) for an approximate 4.80 miles. The aforementioned water main will be replaced in Martin Luther King, Jr. Boulevard from Schribers Bridge to the WFP. The project also includes addressing approximately 15 leaks that were identified during the SmartBall leak detection work undertaken by the City prior to the Lease. These leaks are located at various areas throughout the water main from Schantz Spring to Schribers Bridge.

FUNDING:

The Project will be funded by the LCA Allentown Division. It is identified as Schedule-7 (required) Work in the Lease and is classified as a Major Capital Improvement where the cost of the project will be recovered from the rate payers over a 30-year period through a Capital Cost Recovery Charge.

PROJECT STATUS:

In November 2016 the Board approved the Design Phase of the Project. Working closely with all necessary LCA staff, COA and other outside agencies, LCA obtained all approvals and permits required for Construction Phase of this project.

THIS APPROVAL - CONSTRUCTION PHASE:

Includes the replacement of approximately 2,000 linear feet of 30-inch diameter water main and the repair of approximately 15 leaks that were identified during the SmartBall leak detection work.

BIDDING SUMMARY - CONSTRUCTION CONTRACTS:

The project was advertised for bid on June 19, 2017. A mandatory pre-bid meeting was held on June 29, 2017, and bids were opened on July 13, 2017. Bid results are as follows:

General Construction	
Bidder	Amount
<i>Michels Civil a Division of Michels Corporation</i>	<i>\$1,688,158.00</i>
Michael F. Ronca & Sons, Inc.	\$1,721,000.00
JOAO & Bradley Construction Co., Inc.	\$1,791,735.00
Allan Myers	\$1,948,555.00
Vollers Excavating & Construction Inc.	\$2,380,387.30
PACT ONE, LLC	\$2,779,613.00
Doli Construction Corporation	\$3,111,825.00

Reference checks for Michels Civil a Division of Michels Corporation (Harrisburg PA) have identified no negative issues and the firm has completed numerous projects of similar size and nature. The firm appears qualified to perform the work and all bidding requirements have been met. Therefore, we recommend awarding the General Construction contract to Michels Civil a Division of Michels Corporation subject to the receipt of the necessary Performance Bonds, Insurance and other required documentation.

PROFESSIONAL SERVICES:

Gannett Fleming Inc., our design consultant, will provide Construction Engineering, Management and Inspection related services for the construction phase of the project. The work will generally include:

- Coordinate the issuance and receipt of all construction documents.
- Conduct a pre-construction meeting and prepare and distribute meeting minutes.
- Review all contractor submittals in accordance to the contract documents.
- Provide interpretations and clarification of the contract document to all requests for information.
- Provide full-time construction inspection.
- Prepare daily written and photo documentation.
- Review, prepare and recommend change orders as necessary.
- Conduct construction progress meeting as frequent as every month and prepare and distribute meeting minutes.

- Prepare and distribute pay estimates based upon unit price item quantities.
- Provide progress reports to LCA and the City on a monthly basis based on the progress meetings minutes.
- Prepare record drawings.
- Prepare punch list and closeout documents.
- Coordinate and attend post-construction site visit and walk over.

A Professional Services Authorization is attached for Board approval.

SCHEDULE:

Assuming approval of the Construction Phase at the July 24, 2017 Board meeting, all work is anticipated to be operational by January 1, 2018 (i.e. the substantial completion date).

FUTURE AUTHORIZATIONS:

No future authorizations are anticipated at this time.

CAPITAL PROJECT AUTHORIZATION

PROJECT NO.: AD-W-17-2 **BUDGET FUND:** Allentown Div\Water\Capital

PROJECT TITLE: Allentown Division – Schantz Spring Main Replacement- Construction Phase

PROJECT TYPE:

- ☒ Construction
☐ Engineering Study
☐ Equipment Purchase
☐ Amendment

THIS AUTHORIZATION: \$ 2,070,458

To Date (W/Above) \$2,258,093

DESCRIPTION AND BENEFITS:

This project involves the replacement of approximately 2,000 linear feet of 1903 vintage 30-inch diameter water main that conveys the water from Schantz Spring to the Water Filtration Plant (WFP). The aforementioned water main will be replaced in Martin Luther King, Jr. Boulevard from Schribers Bridge to the WFP. The project also includes addressing approximately 15 leaks that were identified during the SmartBall leak detection work undertaken by the City prior to the Lease. These leaks are located at various areas throughout the water main from Schantz Spring to Schribers Bridge.

The replacements of this main and repair of these leaks are critical in meeting the requirements of the Lease Agreement but also will provide increased reliability of water service for our customers.

Please reference the cover memo for additional information.

Previous Authorizations	
Design Phase	\$187,635

REQUESTED THIS AUTHORIZATION	
Construction Phase	
Staff	\$65,000
Professional Services	
Construction Administration, Inspection & Closeout	\$130,300
General Construction Contract	\$1,688,158
Miscellaneous	\$17,000
Contingency	\$170,000
Total This Authorization	\$2,070,458

Total Estimated Project	\$2,258,093
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REVIEW AND APPROVALS:

Project Manager Date Chief Executive Officer Date

Chief Capital Works Officer Date Chairman Date



Lehigh County Authority

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(610)398-2503 * FAX (610)398-8413 * Email: service@lehighcountyauthority.org

PROFESSIONAL SERVICES AUTHORIZATION
Amendment No. 1

Professional: GANNETT FLEMING, INC.
P.O. Box 67100
Harrisburg, PA 17106

Date: July 17, 2017

Requested By: Jason Peters

Approvals

Department Head: _____

Chief Executive Officer: _____

Allentown Division – Schantz Spring Main Replacement

Previous Authorizations- Design Phase: \$127,635

This Authorization- Construction Phase: \$130,300

Gannett Fleming, Inc. will provide construction related services including but not limited to conducting pre-construction, progress and close out meetings, catalog cut / shop drawing review and approval, change orders, RFI response, Inspection, and technical assistance within the following Professional Services.

Professional Services
1. Construction Engineering & Management Services
2. Construction Inspection Services

Please reference the cover Memo for additional information.

Construction Phase:

Cost Estimate (not to be exceeded without further authorization): \$257,935

Time Table and Completion Deadline: As required to meet various critical deadlines as set forth in the proposal.

(For Authority Use Only)

Authorization Completion:

Approval: _____ **Actual Cost:** _____ **Date:** _____

MEMORANDUM

Date: July 24, 2017

To: Lehigh County Authority Board
From: Amy Kunkel, LCA Project Engineer
Subject: Suburban Division – Crestwood Heights Alternate Water Supply –
Construction Phase

MOTIONS / APPROVALS REQUESTED:

No.	Item	Amount
1	Capital Project Authorization – Construction Phase	\$355,403.00
2	Construction Contract – General (*): Zimmerman Environmental, LLC	\$229,588.00
3	Construction Contract – Electrical (*): Barry J. Hoffman Co., Inc.	\$48,000.00
4	Professional Services – Construction Phase Engineering (*): JMT, Inc	\$9,050.00
5	Professional Services – Construction Phase Inspection (*): Cowan Associates, Inc	\$8,765.00

(*) Included in Capital Project Authorization

BACKGROUND

Crestwood Heights provides service to 96 customers in the Crestwood Subdivision which is the highest elevation in the North Whitehall Division (NWD). The water supply source for the Crestwood Service Elevation is two wells that have low yields and are inadequate during extremely high demand periods (typically attributed to summer lawn watering). In addition, the source water has manganese, which causes operational problems and customer complaints.

PROJECT OVERVIEW

The project consists of the abandonment of the two existing wells and the construction of approximately 600 linear feet of 6-inch diameter water main in order to interconnect the Primary NWD system to the Crestwood Pumping Station; thereby providing a higher quality and reliable water source and assuring adequate capacity to meet peak demand periods. Associated piping, instrumentation, controls, and related modifications to the pumping station are also included. A SCADA (supervisory control and data acquisition) system will be installed to allow full remote control and monitoring of the facilities.

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 consists of two contracts. The project was advertised for bid on June 7 and bids were received via PennBid on July 7, 2017, the results of which are as follows:

General Construction	
Bidder	Bid Amount
Zimmerman Environmental LLC	\$229,588.00
DESCCO Design Construction, Inc.	\$237,905.00
Blooming Glen Contractors WW	\$263,000.00
Derstine Company, LLC	\$315,000.00
Eastern Environmental Contractors, Inc.	\$324,230.00
Electrical Construction	
Bidder	Bid Amount
Barry J. Hoffman Co., Inc.	\$48,000.00
Blooming Glen Contractors WW	\$48,220.00
Diefenderfer Electric	\$67,564.00
A N Lynch Co., Inc.	\$72,600.00

Zimmerman Environmental has experience with new and rehabilitation construction work at water and wastewater facilities, and is currently the General Contractor on the Allentown Flood Pump Replacement project. Barry J. Hoffman Co. also has extensive water and wastewater facility electrical construction experience, and has successfully completed numerous electrical contracts on LCA projects. Both firms' qualifications and experience statements indicate numerous projects of similar scope and type. The bid documents are in order and the firms appear well qualified to perform the work.

PROFESSIONAL SERVICES

Construction engineering is to be performed by JMT, Inc. and part-time inspection services are to be performed by Cowan Associates, Inc.

PROJECT SCHEDULE

Based on contract award following the July 24, 2017 Board meeting, it is anticipated that the project will be completed by early 2018.

FUTURE AUTHORIZATIONS

None

CAPITAL PROJECT AUTHORIZATION

PROJECT NO.:	<u>SD-W-15-3</u>	BUDGET FUND:	<u>Suburban Div\Water\Capital</u>
PROJECT TITLE:	<u>Suburban Division Crestwood Heights Alternate Water Supply – Construction Phase -</u>	PROJECT TYPE:	<input checked="" type="checkbox"/> Construction <input type="checkbox"/> Engineering Study <input type="checkbox"/> Equipment Purchase <input type="checkbox"/> Amendment
THIS AUTHORIZATION:	<u>\$355,403</u>		
TO DATE (W/ ABOVE)	<u>\$505,684</u>		

DESCRIPTION AND BENEFITS:

This Authorization is for the construction of improvements which includes the abandonment of the two existing wells and the construction of approximately 600 linear feet of 6-inch diameter water main interconnecting the Primary NWD system to the Crestwood Pumping Station. Associated piping, controls and other modifications to the pumping station are also included. A SCADA (supervisory control and data acquisition) system will be installed to allow full remote control and monitoring of the facilities. This authorization takes the project through construction phase.

Previous Authorizations	
Planning Phase	\$7,040
Design Phase	\$105,028
SCADA	\$43,213

REQUESTED THIS AUTHORIZATION	
Construction Phase	
Staff	\$25,000
Professional Services	
Construction Engineering - JMT, Inc.	\$9,050
Construction Inspection – Cowan Associates, Inc.	\$8,765
Contract 1-General Construction	\$229,588
Contract 2-Electrical Construction	\$48,000
Miscellaneous	\$5,000
Contingency	\$30,000
Total This Authorization	\$355,403

Future Authorization	
None	

Total Estimated Project	\$510,684
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REVIEW AND APPROVALS:

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



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PROFESSIONAL SERVICES AUTHORIZATION

Professional: COWAN ASSOCIATES, INC.
120 Penn Am Drive
PO Box 949
Quakertown, PA 18951

Date: July 24, 2017

Requested By: Amy Kunkel

Approvals

Department Head: _____

Chief Executive

Officer: _____

Suburban Division- Crestwood Heights Alternate Water Supply

This Authorization- Construction Phase Inspection Services: \$8,765

Cowan Associates, Inc. will provide construction inspection related services for the aforementioned project

Professional Services
1. Attend Pre-Construction Meeting
2. Attend Progress Meeting
3. Provide Part-time Inspection Services
4. Assess work for Contractor Payments and work completion
5. Compile and review as-built drawings from Contractors

Total Authorizations (not to be exceeded without further authorization): **\$8,765**

Time Table and Completion Deadline: As required to meet construction timeline requirements.

(For Authority Use Only)

Authorization Completion:

Approval: _____ **Actual Cost:** _____ **Date:** _____



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PROFESSIONAL SERVICES AUTHORIZATION
Amendment No. 1

Professional: JMT, INC.
7535 Windsor Drive
Suite 204B
Allentown, PA 18195

Date: July 24, 2017

Requested By: Amy Kunkel

Approvals

Department Head: _____

Chief Executive

Officer: _____

Suburban Division- Crestwood Heights Alternate Water Supply

Previous Authorizations- Design Phase; \$44,228

This Authorization- Construction Phase Engineering: \$9,050

JMT, Inc. will provide construction engineering related services for the aforementioned project

Professional Services
1. Attend Pre-Construction Meeting and Prepare/distribute Minutes
2. Attend Progress Meetings
3. Respond to design related RFIs
4. Log, review and process shop drawing submittals
5. Attend Substantial Completion Meeting

Total Authorizations (not to be exceeded without further authorization): **\$53,278**

Time Table and Completion Deadline: As required to meet construction timeline requirements.

(For Authority Use Only)

Authorization Completion:

Approval: _____ **Actual Cost:** _____ **Date:** _____

MEMORANDUM

Date: July 24, 2017

To: Lehigh County Authority Board
From: Amy Kunkel, LCA Project Engineer
Subject: Suburban Division – Well Abandonments: Construction Phase

MOTIONS / APPROVALS REQUESTED:

No.	Item	Amount
1	Capital Project Authorization – Construction Phase	\$95,766.00
2	Professional Services Contract (*): ARRO Consulting, Inc.	\$73,766.00

(*) Included in Capital Project Authorization

BACKGROUND

The Suburban Division has a number of wells that are listed as reserve or emergency status due to water quality and quantity issues. Proposed DEP regulations dictate that emergency and reserve designations will no longer be used; wells will either be permanent (active) or abandoned, with the requirement that permanent wells must be put into production and subject to compliance monitoring. DEP has since backed off on the regulation deadline; however, in order to prepare for the impending new regulations, six (6) wells were identified for abandonment this year.

PROJECT OVERVIEW

The project consists of the abandonment of six (6) wells which are no longer used due to water quality issues. Well Nos. 4 and 7 in the Central Lehigh Division and Well Nos. 7, 8, 9, and 10 in the North Whitehall Division will be abandoned in accordance with AWWA and PADEP protocols and regulations. CLD Well Nos. 4 and 7 are designated as groundwater under the direct influence of surface water and would require filtration facilities in order to use as water sources. NWD Well Nos. 7, 8, 9, and 10 have high levels of manganese that would require treatment that is not cost effective based on their small yields.

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 AND PERMITTING PHASE

This project consists of a professional services agreement with ARRO Consulting, Inc. ARRO will sub-contract the services of a well driller to remove the well pumps, motors and appurtenances, pressure grout the well, backfill the vault with stone (if applicable) and perform topsoil and seeding restoration. A Well Abandonment Report will be filed with DEP for each well.

Construction and Permitting	
Firm	Proposal Amount
ARRO Consulting, Inc.	\$73,766.00

PROFESSIONAL SERVICES

ARRO Consulting, Inc. has served as LCA's engineer on numerous well development and well replacement projects, and has extensive hydrogeological experience and knowledge of local water supplies. The firm also have extensive experience selecting and working with qualified well drilling companies and PADEP.

PROJECT SCHEDULE

Based on contract award following the July 24, 2017 Board meeting, it is anticipated that the project will be completed by early 2018.

FUTURE AUTHORIZATIONS

None

CAPITAL PROJECT AUTHORIZATION

PROJECT NO.:	<u>SD-W-17-3</u>	BUDGET FUND:	<u>Suburban Div\Water\Capital</u>
PROJECT TITLE:	<u>Suburban Division Well Abandonments – Construction Phase -</u>	PROJECT TYPE:	<input checked="" type="checkbox"/> Construction <input type="checkbox"/> Engineering Study <input type="checkbox"/> Equipment Purchase <input type="checkbox"/> Amendment
THIS AUTHORIZATION:	<u>\$95,766</u>		
TO DATE (W/ ABOVE)	<u>\$95,766</u>		

DESCRIPTION AND BENEFITS:

This Authorization is for the abandonment of six wells which are no longer used because of water quality issues. Wells 4 and 7 in the Central Lehigh Division and Wells 7, 8, 9, and 10 in the North Whitehall Division will be abandoned in accordance with AWWA and PADEP regulations. The well driller will be a sub-contractor to the Engineer. This authorization takes the project through construction phase.

Previous Authorizations	
none	

REQUESTED THIS AUTHORIZATION	
Construction Phase	
Staff	\$10,000
Professional Services	
ARRO Consulting, Inc.	\$73,766
Miscellaneous	\$5,000
Contingency	\$7,000
Total This Authorization	\$95,766

Future Authorization	
None	

Total Estimated Project	\$95,766
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REVIEW AND APPROVALS:

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



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PROFESSIONAL SERVICES AUTHORIZATION

Professional: ARRO CONSULTING, INC.
108 West Airport Road
Lititz, PA 17543

Date: July 24, 2017

Requested By: Amy Kunkel

Approvals

Department Head: _____

Chief Executive

Officer: _____

Suburban Division- Well Abandonments

This Authorization - Construction Phase: \$73,766

ARRO Consulting, Inc. will provide construction inspection related services for the aforementioned project

Professional Services
1. Procure contractor to perform well abandonment
2. Provide on-site personnel to supervise well abandonment operations
3. Coordinate with LCA and contractor
4. Provide field reports documenting activities
5. Address DEP concerns, including filing well abandonment paperwork

Total Authorizations (not to be exceeded without further authorization): **\$73,766**

Time Table and Completion Deadline: As required to meet construction timeline requirements.

(For Authority Use Only)

Authorization Completion:

Approval: _____ **Actual Cost:** _____ **Date:** _____

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MEMORANDUM

Date: July 17, 2017

To: Lehigh County Authority Board

From: Jason Peters, Capital Project Coordinator

Subject: Suburban Division- Water Main Replacement Program Construction
Phase for Cycle 3

MOTIONS /APPROVALS REQUESTED:

No.	Item	Amount
2	<u>Capital Project Authorization:</u> Construction Phase, Cycle 3	\$1,505,234
3	<u>Professional Services Authorization Cycle 3:</u>	
*	<ul style="list-style-type: none">Construction Engineering and Managements Services, Amendment No. 2 - <i>Gannett Fleming Inc.</i>Construction Inspection Services Amendment No. 1 - <i>Keystone Consulting Engineers</i>	\$51,100 \$75,000
4	<u>Contract Award Cycle 3:</u>	
*	<input type="checkbox"/> General Construction – JOAO & Bradley Construction Co., Inc	\$1,157,134

(*) *Included in the Capital Project Authorization*

PROJECT OVERVIEW:

The Suburban Division water systems serve multiple townships, municipalities, boroughs, and communities in Lehigh and Northampton Counties. This Project covers Cycles 1-3 which addresses the main replacement requirements for years 2015 through 2017 and includes approximately 3 miles of pipe. Cycle 3 will replace approximately 1 mile of pipe and appurtenances in 2017 providing for a more reliable system to our community and customers.

The driver for the project is to replace aging and failing infrastructure to prevent excessive leakage or disruptive water main breaks that can impact our customers. Given the complex nature and magnitude of the project, it will require a significant amount of coordination and public relations efforts.

FUNDING:

The Project will be funded by the LCA Suburban Division.

PROJECT STATUS:

Previously, in January 2015, the Board approved the Design Phase for Cycles 1-3 of the Project.

Working closely with all necessary Municipalities and other outside agencies when applicable, LCA was able to obtain all approvals and permits required to bid Cycle 3 Construction Phase.

THIS APPROVAL: CONSTRUCTION PHASE CYCLE 3

Cycle 3 includes 1.09 miles of water main replacement in four separate locations within Lower Macungie Township, of which one area will require temporary water service to facilitate the “remove and replace” type construction of the new main. This is necessary because of the known presence of limestone rock within the construction area along with other utilities that preclude construction activities such as blasting.

BIDDING SUMMARY: CONSTRUCTION CONTRACTS CYCLE 3

The project was advertised for bid on June 19, 2017. A mandatory pre-bid meeting was held on June 29, 2017, and bids were opened on July 13, 2017. Bid results are as follows:

Table 1	
General Construction	
Bidder	Amount
<i>JOAO & Bradley Construction Co., Inc.</i>	<i>\$1,157,134.00</i>
Anrich, Inc.	\$1,157,647.66
Doli Construction Corporation	\$2,862,760.00

JOAO & Bradley Construction Co., Inc. (Contractor) successfully performed the Allentown Division Cycles 2 & 3 water main replacement Project for LCA; prior to the Lease, the Contractor performed many water main replacements for the COA; and is currently utilized by LCA’s Distribution and Collection Department for emergency repairs. Therefore, we recommend awarding the General Construction contract to JOAO Bradley Construction Co., Inc.; subject to the receipt of the necessary Performance Bonds, Insurance and other required documentation.

PROFESSIONAL SERVICES: CONSTRUCTION PHASE CYCLE 3

1. Construction Engineering & Management

Gannett Fleming Inc. our design consultant, will provide construction engineering and management related services for the construction phase of the project. The work will generally include:

- Conduct pre-construction conference.
- Review contractor's construction schedule and updates for compliance with project.
- Arrange and conduct monthly progress meetings and provide meeting minutes.
- Review all contractor submittals to ensure that design objectives and requirements of the Contract Documents are met.
- Prepare Change Orders.
- Respond to contractor Requests-for-Information.
- Review certified payrolls.
- Conduct walkover of the project site with contractors and LCA representatives.
- Provide LCA with recommendation on completeness of work, final acceptance and release of final payment.

2. Construction Inspection

Keystone Consulting Engineers (KCE) will provide daily construction inspection related services for the construction phase of the project. The work will generally include:

- Act as the daily field contact person for the project.
- Attend pre-construction & monthly progress meetings
- On-site contract management and coordination
- Maintain daily record of project activities, quantities of work performed, site conditions, etc.
- Review documentation for change order requests
- Review monthly pay estimates
- Perform substantial and final completion inspections

Keystone Consulting Engineers (KCE) was previously approved in Cycles 1&2 of the Suburban Division water main replacement project where they represented both the best technical and overall value.

As anticipated KCE performance has met and exceeded many of the key components in their original proposal. In addition to providing a high level of Technical skill in the construction inspection process they have also provided a critical key partnership not only with LCA but with our design consultant Gannett Fleming Inc. This key partnership in turn has expedited many critical tasks during the construction phase of the project that has provided an excellent value not only in cost but also in flexibility for LCA.

A Professional Services Authorization is attached for both firms for Board approval.

SCHEDULE:

Assuming approval of the Construction Phase at the July 24, 2017 Board meeting, all work is anticipated to be operational by November 1, 2017 (i.e. the substantial completion date).

FUTURE AUTHORIZATIONS:

No future authorizations are anticipated at this time.

CAPITAL PROJECT AUTHORIZATION

PROJECT NO.:	SD-W-17-1	BUDGET FUND:	Suburban Div\Water\Capital
PROJECT TITLE:	Suburban Division -Water Main Replacement Program Cycles 1-3	PROJECT TYPE:	<input checked="" type="checkbox"/> Construction <input type="checkbox"/> Engineering Study <input type="checkbox"/> Equipment Purchase <input checked="" type="checkbox"/> Amendment No. 2
THIS AUTHORIZATION TO DATE (W/ABOVE)	\$ 1,505,234 \$ 5,404,814		

DESCRIPTION AND BENEFITS:

The Suburban Division water systems serve multiple townships, municipalities, boroughs, and communities in Lehigh and Northampton Counties. This Project covers Cycles 1-3 which addresses the main replacement requirements for years 2015 through 2017 with the intent to replace 3 miles of water main over the 3-year period due to aging infrastructure that has reached the end of its useful life to prevent excessive leakage or disruptive water main breaks that can impact our customers.

Please reference the cover Memo for additional information.

THIS AMENDMENT –Construction Phase, Cycle 3

Please reference the cover Memo for additional information.

Previous Authorizations	
Design Phase Cycles 1-3	\$353,358
Construction Phase Cycles 1&2	\$3,546,222

REQUESTED THIS AUTHORIZATION	
Construction Phase Cycle 3	
Staff	\$90,000
Professional Services	
Construction Engineering / Management	\$51,100
Construction Inspection	\$75,000
General Construction Contract	\$1,157,134
Miscellaneous	\$12,000
Contingency	\$120,000
Total This Authorization	\$1,505,234

Total Estimated Project	\$5,404,814
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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 Road * P.O. Box 3348 * Allentown, PA 18106-0348
(610)398-2503 * FAX (610)398-8413 * Email: service@lehighcountyauthority.org

PROFESSIONAL SERVICES AUTHORIZATION
Amendment No. 2

Professional: GANNETT FLEMING, INC.
P.O. Box 67100
Harrisburg, PA 17106

Date: July 17, 2017

Requested By: Jason Peters

Approvals

Department Head:

Chief Executive Officer:

Suburban Division – Water Main Replacement Program Cycles 1-3

*Previous Authorizations- Design Phase, Cycles 1-3: \$178,358
Construction Phase Cycles 1&2: \$62,078*

This Authorization- Construction Phase, Cycle 3: \$51,100

Gannett Fleming, Inc. will provide construction related services including but not limited to conducting pre-construction, progress and close out meetings, catalog cut / shop drawing review and approval, change orders, RFI response, and technical assistance within the following Professional Services.

Professional Services
1. Construction Engineering & Management Services

Please reference the cover Memo for additional information.

Cost Estimate (not to be exceeded without further authorization): \$291,536

Time Table and Completion Deadline: As required to meet various critical deadlines as set forth in the proposal.

(For Authority Use Only)

Authorization Completion:

Approval: _____ **Actual Cost:** _____ **Date:** _____



Lehigh County Authority

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

<p align="center">PROFESSIONAL SERVICES AUTHORIZATION Amendment No. 1</p>

Professional: KEYSTONE CONSULTING
ENGINEERS
6235 Hamilton Boulevard,
Suite 100
Wescosville, PA 18106

Date: July 17, 2017

Requested By: Jason Peters

Approvals

Department Head: _____

Chief Executive Officer: _____

Suburban Division – Water Main Replacement Program Cycles 1-3

Previous Authorizations: Construction Phase Cycles 1&2: \$90,000

This Authorization- Construction Phase, Cycle 3: \$75,000

Keystone Consulting Engineers will provide construction inspection related services including but not limited to attending pre-construction, progress and close out meetings, and technical assistance for the following Professional Service.

Professional Service
1. Construction Inspection Services

Please reference the cover Memo for additional information.

Cost Estimate (not to be exceeded without further authorization): \$165,000

Time Table and Completion Deadline: As required to meet various critical deadlines as set forth in the proposal.

(For Authority Use Only)

Authorization Completion:

Approval: _____ **Actual Cost:** _____ **Date:** _____



LEHIGH COUNTY AUTHORITY

FINANCIAL REPORT – JUNE 2017

FINANCIAL REPORT JUNE 2017

1. SUMMARY

A. Month

	JUNE 2017						
MONTH	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Income Statement							
Suburban Water	(219,993)	(251,472)	(4,811)	125,165	31,479	(215,182)	(345,158)
Suburban Wastewater	(43,122)	(48,946)	22,357	67,873	5,824	(65,479)	(110,995)
City Division	788,772	467,630	(757,194)	(976,581)	321,142	1,545,966	1,765,353
Cash Flow Statement (Indirect)							
Suburban Water	15,111,926	14,156,989	(524,044)	34,562	954,937	15,635,970	15,077,364
Suburban Wastewater	(9,751)	(951,724)	(270,589)	104,504	941,973	260,838	(114,255)
City Division	(4,768,794)	(5,051,267)	(5,673,227)	(6,459,624)	282,473	904,433	1,690,830

Net income

City Division was the lone fund with positive net income, the two Suburban Funds were negative. Compared to forecast, net income for all three funds was better than forecast.

Cash Flows

Suburban Water had positive net cash flow driven by the issuance of 2017 bonds. Suburban Wastewater and City Division had negative cash flows. Compared to forecast, all three funds had cash flows that were better than forecast.

B. YTD

	JUNE 2017						
YTD	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Income Statement							
Suburban Water	(262,787)	(418,903)	(237,203)	331,912	156,115	(25,584)	(594,699)
Suburban Wastewater	496,442	339,586	(183,056)	351,588	156,857	679,498	144,854
City Division	(1,036,904)	(1,440,222)	(5,971,869)	(4,440,052)	403,318	4,934,965	3,403,147
Cash Flow Statement (Indirect)							
Suburban Water	14,494,700	13,036,863	(3,352,601)	358,958	1,457,838	17,847,301	14,135,742
Suburban Wastewater	1,282,321	(77,084)	(1,940,732)	1,356,371	1,359,405	3,223,053	(74,050)
City Division	676,377	268,700	(3,104,762)	(3,491,445)	407,677	3,781,139	4,167,822
Debt Service Coverage Ratio							
Suburban Water	1.32	1.13	1.13	1.73	0.19	0.19	(0.42)
Suburban Wastewater	8.51	8.02	2.38	7.59	0.49	6.13	0.92
City Division	1.46	1.41	1.04	1.19	0.05	0.42	0.27

Net income

Suburban Wastewater has positive net income YTD, Suburban Water and City Division are negative YTD. Compared to forecast, all three funds have YTD net income that is better. Compared to budget, Suburban Wastewater and City Division are better than budget. Suburban Water is down just slightly to budget.

Cash Flows

YTD cash flows for all three funds are positive.

Cash flows for all three funds is better than forecast.

All three funds have better than budgeted cash flows.

Debt Service Coverage Ratio

YTD debt service coverage ratios are better than forecast and budget across all three funds and the ratios for all three funds are better than the 1.20 internal target.

2. SUBURBAN WATER

A. Month

MONTH - SUBURBAN WATER	JUNE 2017						
Income Statement	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Operating Revenues	801,790	795,789	759,243	726,978	6,001	42,547	74,812
Operating (Expenses)	(715,613)	(757,566)	(734,533)	(565,153)	41,953	18,920	(150,461)
Operating Income	86,176	38,223	24,710	161,825	47,953	61,466	(75,649)
Non-Operating Revenues (Expenses)	62,150	80,483	66,167	46,334	(18,333)	(4,017)	15,816
Income Before Interest	148,326	118,706	90,877	208,159	29,620	57,449	(59,833)
Interest Income	7,700	6,795	16,667	4,447	905	(8,967)	3,253
Interest Expense	(376,019)	(376,973)	(112,355)	(87,441)	954	(263,664)	(288,578)
Capital Contributions	-	-	-	-	-	-	-
NET INCOME	(219,993)	(251,472)	(4,811)	125,165	31,479	(215,182)	(345,158)

Net income was negative but was favorable to forecast by \$31k. Favorable variances in operating revenues, operating expenses and interest were partially offset by lower non-operating revenues.

MONTH - SUBURBAN WATER	JUNE 2017						
Cash Flow Statement (Indirect)	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Net Income	(219,993)	(251,472)	(4,811)	125,165	31,479	(215,182)	(345,158)
Add: Depreciation & Amortization	245,832	245,832	245,833	245,832	-	(1)	-
Add: Non-Cash Interest Expense	-	1	-	(0)	(1)	-	0
Add: Capex Charged to Expense	31,602	187	8,333	406	31,415	23,269	31,196
Principal Payments	(139,015)	(128,565)	(152,816)	(136,619)	(10,450)	13,801	(2,396)
Investments Converting To Cash	-	-	-	-	-	-	-
New Borrowing	15,292,006	15,215,000	-	-	77,006	15,292,006	15,292,006
Capital Expenditures	(98,505)	(923,994)	(620,583)	(200,221)	825,489	522,078	101,716
NET FUND CASH FLOWS	15,111,926	14,156,989	(524,044)	34,562	954,937	15,635,970	15,077,364

Cash flows were positive and \$955k better than forecast. We issued 2017 bonds that netted almost \$15m after costs. Excluding the bond proceeds, cash flow still would have been positive at around \$114k.

The favorable variance to forecast is a combination of higher net income and lower capital spending. Capex spending was down to forecast by \$825k.

B. YTD

YTD - SUBURBAN WATER	JUNE 2017						
Income Statement	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Operating Revenues	4,274,058	4,255,735	4,347,121	4,182,680	18,323	(73,063)	91,378
Operating (Expenses)	(3,892,276)	(3,988,396)	(4,407,198)	(3,635,483)	96,120	514,922	(256,794)
Operating Income	381,782	267,339	(60,077)	547,197	114,442	441,859	(165,415)
Non-Operating Revenues (Expenses)	200,444	194,900	397,002	270,114	5,543	(196,558)	(69,670)
Income Before Interest Expense	582,225	462,240	336,925	817,311	119,986	245,300	(235,086)
Interest Income	39,857	40,769	100,002	44,052	(912)	(60,145)	(4,195)
Interest Expense	(884,870)	(921,912)	(674,130)	(529,451)	37,042	(210,740)	(355,419)
Capital Contributions	-	-	-	-	-	-	-
NET INCOME	(262,787)	(418,903)	(237,203)	331,912	156,115	(25,584)	(594,699)

YTD net income was negative but was better than the forecasted loss by \$156k with favorable variances across the board except for slightly lower interest income.

Compared to budget, net income is unfavorable by \$25k due, mainly, to lower non-operating revenues and unfavorable interest income and interest expense.

YTD - SUBURBAN WATER	JUNE 2017						
Cash Flow Statement (Indirect)	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Net Income	(262,787)	(418,903)	(237,203)	331,912	156,115	(25,584)	(594,699)
Add: Depreciation & Amortization	1,474,992	1,474,992	1,474,998	1,474,992	-	(6)	-
Add: Non-Cash Interest Expense	-	3	-	-	(3)	-	-
Add: Capex Charged to Expense	151,881	1,121	49,998	2,800	150,760	101,883	149,081
Principal Payments	(802,596)	(771,389)	(916,896)	(819,030)	(31,207)	114,300	16,434
Investments Converting To Cash	-	-	-	-	-	-	-
New Borrowing	15,292,006	15,215,000	-	-	77,006	15,292,006	15,292,006
Capital Expenditures	(1,358,796)	(2,463,962)	(3,723,498)	(631,716)	1,105,166	2,364,702	(727,080)
NET FUND CASH FLOWS	14,494,700	13,036,863	(3,352,601)	358,958	1,457,838	17,847,301	14,135,742

YTD cash flow is positive and is \$1,458k favorable to forecast on higher net income and lower capital spending. Capital spending is \$1.1m lower than forecast.

Compared to budget, cash flow is favorable by \$17.9 from the bond issue that was not in the budget for this month along with lower capital spending. Capital spending is \$2.3m lower than budget.

3. SUBURBAN WASTEWATER

A. Month

MONTH - SUBURBAN WASTEWATER	JUNE 2017						
	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Income Statement							
Operating Revenues	1,201,036	1,350,980	1,563,773	1,506,813	(149,944)	(362,737)	(305,777)
Operating (Expenses)	(1,438,495)	(1,496,370)	(1,546,447)	(1,513,970)	57,875	107,952	75,474
Operating Income	(237,459)	(145,390)	17,326	(7,157)	(92,069)	(254,785)	(230,303)
Non-Operating Revenues (Expenses)	212,176	109,942	66,083	91,874	102,234	146,093	120,303
Income Before Interest Expense	(25,283)	(35,448)	83,409	84,717	10,165	(108,692)	(110,000)
Interest Income	68	4,602	9,917	728	(4,534)	(9,849)	(660)
Interest Expense	(17,907)	(18,100)	(70,969)	(17,572)	193	53,062	(335)
Capital Contributions	-	-	-	-	-	-	-
NET INCOME	(43,122)	(48,946)	22,357	67,873	5,824	(65,479)	(110,995)

Net income was negative but was \$6 better than forecast. This is due to lower operating revenues more than offset by lower operating expenses and higher tapping fees.

MONTH - SUBURBAN WASTEWATER	JUNE 2017						
	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Cash Flow Statement (Indirect)							
Net Income	(43,122)	(48,946)	22,357	67,873	5,824	(65,479)	(110,995)
Add: Depreciation & Amortization	364,694	364,694	327,083	334,133	-	37,611	30,561
Add: Non-Cash Interest Expense	2,721	2,928	-	3,036	(207)	2,721	(315)
Add: Capex Charged to Expense	385	-	25,000	61	385	(24,615)	324
Principal Payments	(39,364)	(39,602)	(93,946)	(41,879)	238	54,582	2,515
Investments Converting To Cash	-	-	-	-	-	-	-
New Borrowing	-	-	-	-	-	-	-
Capital Expenditures	(295,064)	(1,230,798)	(551,083)	(258,719)	935,734	256,019	(36,345)
NET FUND CASH FLOWS	(9,751)	(951,724)	(270,589)	104,504	941,973	260,838	(114,255)

Cash flows were slightly negative but were \$942k better than forecast. This was due to favorable net income and lower capital spending. Capital spending was \$936k lower than forecast.

B. YTD

YTD - SUBURBAN WASTEWATER	JUNE 2017						
	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Income Statement							
Operating Revenues	8,316,849	8,495,878	9,065,440	8,966,183	(179,029)	(748,591)	(649,333)
Operating (Expenses)	(8,452,620)	(8,513,217)	(9,278,682)	(9,190,170)	60,598	826,062	737,550
Operating Income	(135,770)	(17,339)	(213,242)	(223,987)	(118,432)	77,472	88,217
Non-Operating Revenues (Expenses)	738,064	437,912	396,498	673,078	300,152	341,566	64,986
Income Before Interest Expense	602,294	420,573	183,256	449,091	181,721	419,038	153,203
Interest Income	2,335	27,611	59,502	4,632	(25,276)	(57,167)	(2,297)
Interest Expense	(108,187)	(108,599)	(425,814)	(102,135)	412	317,627	(6,052)
Capital Contributions	-	-	-	-	-	-	-
NET INCOME	496,442	339,586	(183,056)	351,588	156,857	679,498	144,854

YTD net income is positive and is better than forecast by \$157k due to lower operating expenses along with higher tapping fees and lower capex expensed to offset lower operating revenues.

Compared to budget, net income is up by \$679k from lower operating expenses, higher tapping fees, lower capex expensed, and lower interest expense to offset an unfavorable operating revenue variance.

YTD - SUBURBAN WASTEWATER	JUNE 2017						
Cash Flow Statement (Indirect)	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Net Income	496,442	339,586	(183,056)	351,588	156,856	679,498	144,854
Add: Depreciation & Amortization	2,188,164	2,188,164	1,962,498	2,004,798	-	225,666	183,366
Add: Non-Cash Interest Expense	17,082	17,567	-	17,670	(485)	17,082	(588)
Add: Capex Charged to Expense	518	-	150,000	1,001	518	(149,482)	(483)
Principal Payments	(236,999)	(237,612)	(563,676)	(239,542)	613	326,677	2,544
Investments Converting To Cash	-	-	-	-	-	-	-
New Borrowing	-	-	-	-	-	-	-
Capital Expenditures	(1,182,886)	(2,384,789)	(3,306,498)	(779,143)	1,201,903	2,123,612	(403,743)
NET FUND CASH FLOWS	1,282,321	(77,084)	(1,940,732)	1,356,371	1,359,405	3,223,053	(74,050)

YTD cash flow is positive and \$1.4m better than forecast due to higher net income and lower capital spending. YTD capital spending is \$1.2m lower than forecast

Compared to budget, cash flow is up by \$3.2m from higher net income and lower capital spending as well. Capital spending is \$2.1m lower than budget.

4. CITY DIVISION

A. Month

MONTH - CITY DIVISION	JUNE 2017						
Income Statement	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Operating Revenues	4,044,453	3,932,388	2,745,021	2,328,021	112,065	1,299,432	1,716,432
Operating (Expenses)	(1,812,973)	(1,917,188)	(1,871,840)	(1,701,531)	104,216	58,867	(111,441)
Operating Income	2,231,481	2,015,200	873,181	626,490	216,281	1,358,300	1,604,991
Non-Operating Revenues (Expenses)	(218,553)	(150,583)	(283,834)	(310,460)	(67,970)	65,281	91,907
Income Before Interest Expense	2,012,927	1,864,617	589,347	316,029	148,310	1,423,580	1,696,898
Interest Income	38,785	10,954	25,167	22,847	27,831	13,618	15,938
Interest Expense	(1,262,941)	(1,407,941)	(1,371,708)	(1,315,458)	145,000	108,767	52,517
Capital Contributions	-	-	-	-	-	-	-
NET INCOME	788,772	467,630	(757,194)	(976,581)	321,142	1,545,966	1,765,353

Net income was positive and was \$321k better than forecast with favorable variances across all categories except for non-operating revenues which was unfavorable to forecast on lower tapping fees and lower project reimbursement.

MONTH - CITY DIVISION	JUNE 2017						
Cash Flow Statement (Indirect)	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Net Income	788,772	467,630	(757,194)	(976,581)	321,142	1,545,966	1,765,353
Add: Depreciation & Amortization	450,000	450,000	466,667	450,000	-	(16,667)	-
Add: Non-Cash Interest Expense	(5,260,920)	(5,115,920)	(5,152,153)	(5,208,403)	(145,000)	(108,767)	(52,517)
Add: Capex Charged to Expense	216,142	166,488	658,667	111,624	49,654	(442,525)	104,518
Principal Payments	-	-	-	-	-	-	-
Cash Outlays on Lease & Lease Reserve	-	-	-	-	-	-	-
Investments Converting To Cash	-	-	-	-	-	-	-
New Borrowing	-	-	-	-	-	-	-
Capital Expenditures	(962,788)	(1,019,465)	(889,214)	(836,264)	56,677	(73,574)	(126,524)
NET FUND CASH FLOWS	(4,768,794)	(5,051,267)	(5,673,227)	(6,459,624)	282,473	904,433	1,690,830

Cash flow was negative but was \$282k better than forecast due to higher net income and slightly lower capital spending.

B. YTD

YTD - CITY DIVISION	JUNE 2017						
Income Statement	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Operating Revenues	17,378,248	17,247,325	15,041,421	14,851,284	130,923	2,336,827	2,526,964
Operating (Expenses)	(10,611,622)	(10,812,129)	(11,231,040)	(9,951,708)	200,507	619,418	(659,914)
Operating Income	6,766,626	6,435,196	3,810,381	4,899,577	331,430	2,956,245	1,867,050
Non-Operating Revenues (Expenses)	(449,895)	(343,497)	(1,703,004)	(1,649,945)	(106,398)	1,253,109	1,200,049
Income Before Interest Expense	6,316,731	6,091,699	2,107,377	3,249,632	225,032	4,209,354	3,067,099
Interest Income	224,011	190,724	151,002	203,064	33,286	73,009	20,946
Interest Expense	(7,577,646)	(7,722,646)	(8,230,248)	(7,892,748)	145,000	652,602	315,102
Capital Contributions	-	-	-	-	-	-	-
NET INCOME	(1,036,904)	(1,440,222)	(5,971,869)	(4,440,052)	403,318	4,934,965	3,403,147

YTD net income is negative but \$403k better than forecast with higher operating revenues and lower operating expenses partially offset by lower capital recovery and project reimbursement fees.

Compared to budget, income is \$4.9m favorable with favorable variances across all categories.

YTD - CITY DIVISION	JUNE 2017						
Cash Flow Statement (Indirect)	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Net Income	(1,036,904)	(1,440,222)	(5,971,869)	(4,440,052)	403,318	4,934,965	3,403,147
Add: Depreciation & Amortization	2,700,000	2,700,000	2,800,002	2,700,000	-	(100,002)	-
Add: Non-Cash Interest Expense	1,053,785	1,198,785	1,706,387	1,368,887	(145,000)	(652,602)	(315,102)
Add: Capex Charged to Expense	679,943	598,927	3,952,002	1,320,212	81,016	(3,272,059)	(640,269)
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	(2,468,447)	(2,536,790)	(5,335,284)	(4,190,492)	68,343	2,866,837	1,722,045
NET FUND CASH FLOWS	676,377	268,700	(3,104,762)	(3,491,445)	407,677	3,781,139	4,167,822

YTD cash flow is positive and \$408k better than forecast on higher net income and slightly lower capital spending.

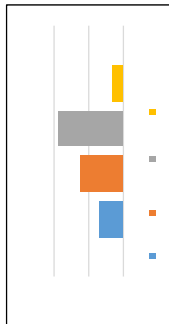
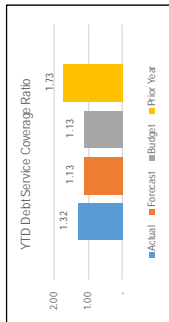
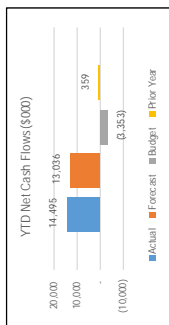
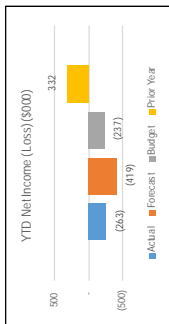
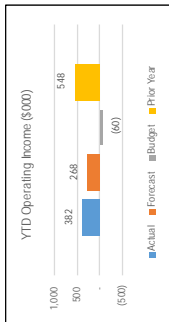
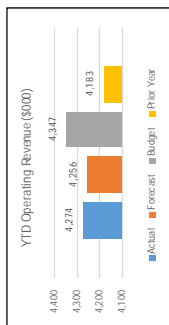
Compared to budget, cash flow is up \$3.8m from higher net income and lower capital spending partially offset by higher interest expense and higher expensed capex.

5. FULL YEAR FORECAST

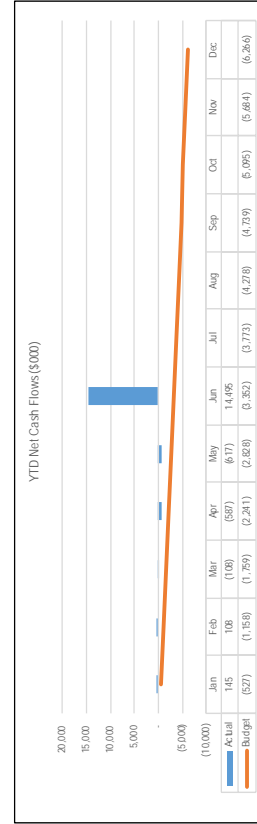
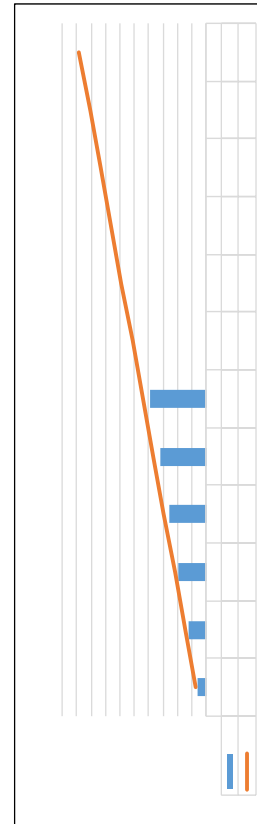
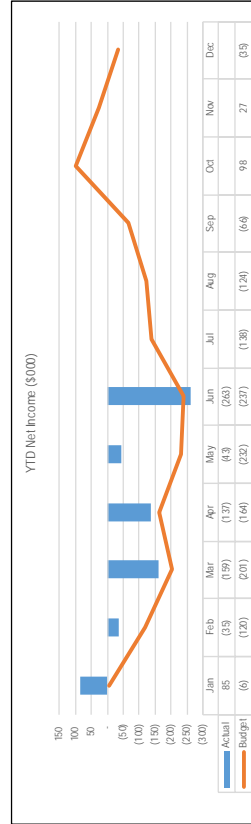
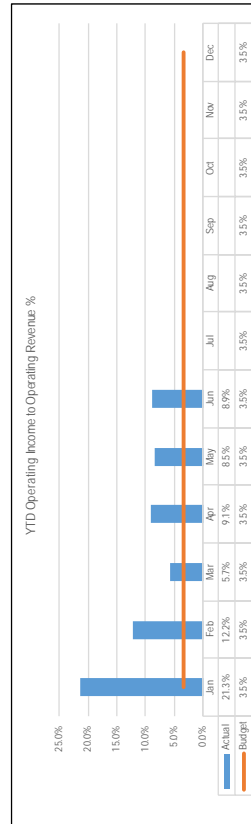
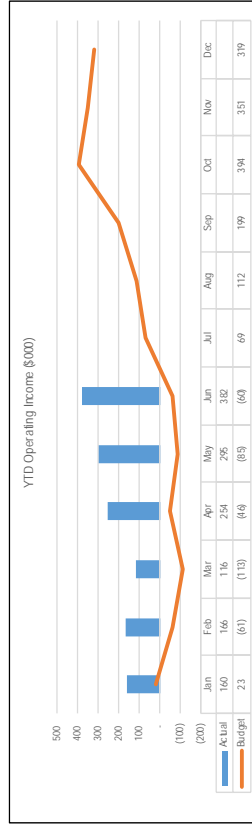
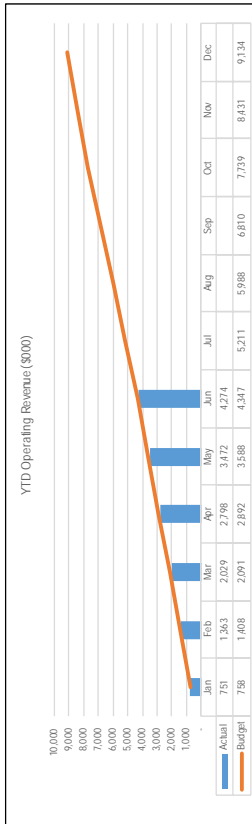
Through June, we were favorable to forecast on net income and cash flow across all three funds.

We will be developing a forecast for the second half of the year to determine how we can expect to finish with respect to budget for the entire year.

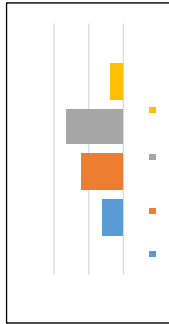
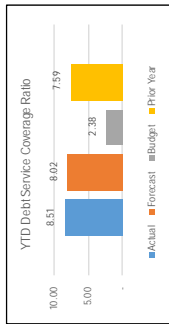
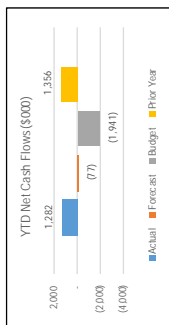
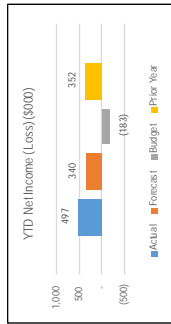
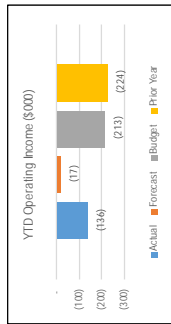
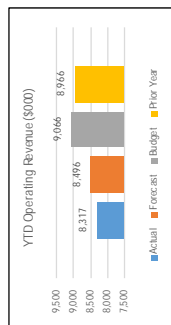
DASHBOARD - SUBURBAN WATER JUNE 2017



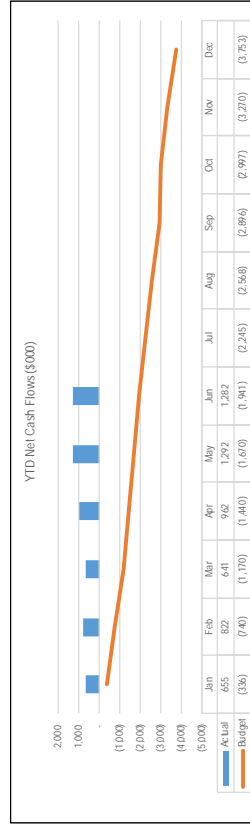
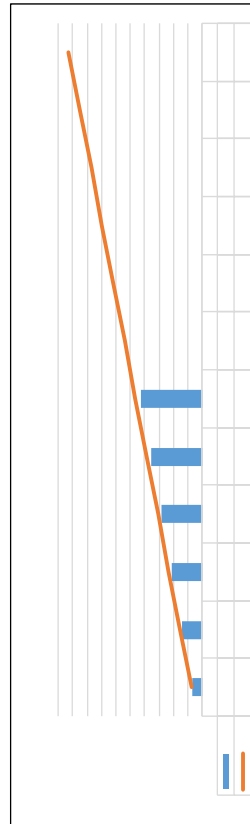
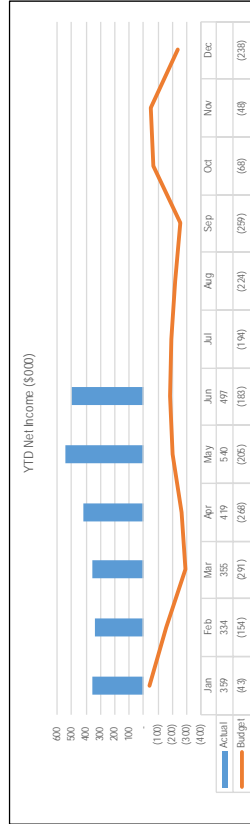
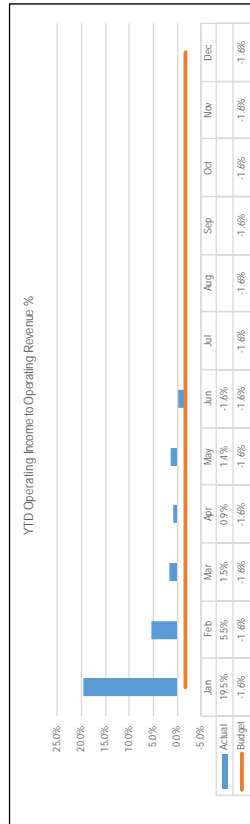
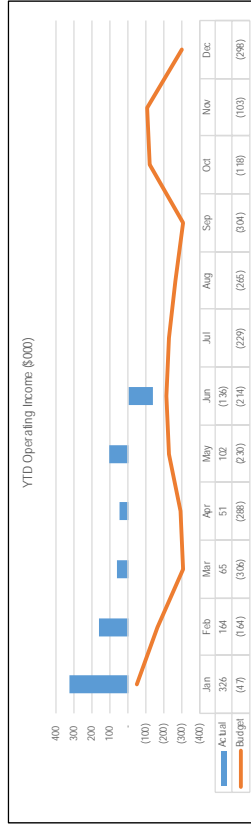
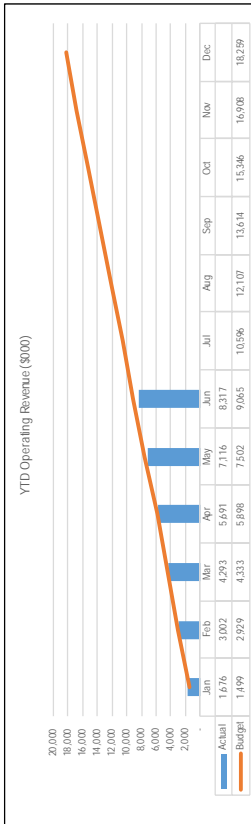
YTD COMPARATIVE (\$000)				Variance to			
	Actual	Forecast	Budget	Prior Year	Forecast	Budget	Prior Year
Operating Revenues	4,274	4,256	4,183	18	(73)	91	
Less Operating Expenses	3,892	3,988	4,407	96	515	(257)	
Operating Income	382	268	(60)	548	114	442	(166)
Other Income (Expenses)	(645)	(687)	(777)	(216)	42	(468)	(409)
Net Income	(263)	(419)	(237)	332	156	(995)	
Debt Service Coverage Ratio	1.32	1.13	1.73	0.19	0.19	(0.41)	
Net Cash Flows	14,495	13,036	(3,353)	359	1,459	17,948	14,136



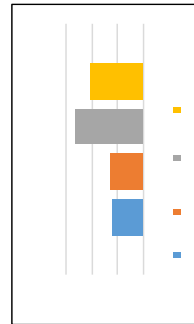
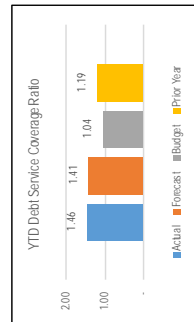
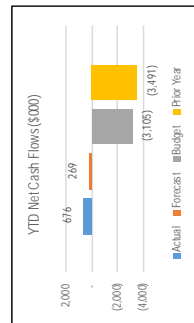
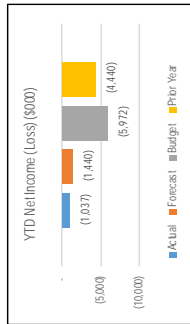
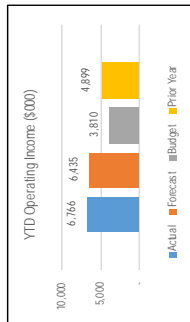
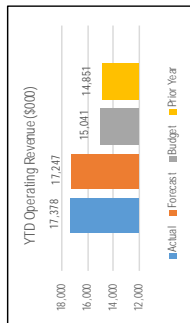
DASHBOARD - SUBURBAN WASTEWATER JUNE 2017



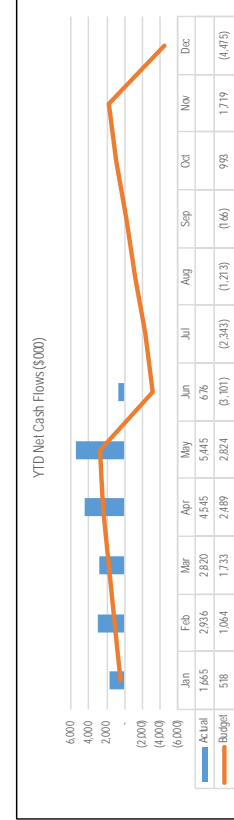
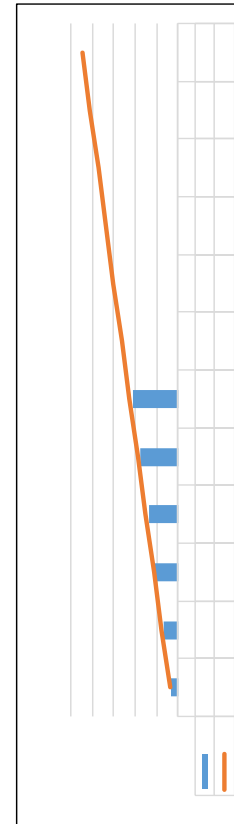
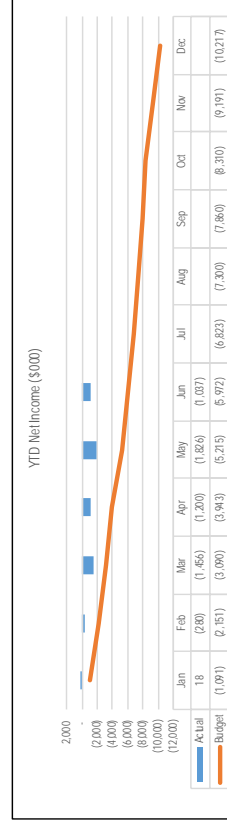
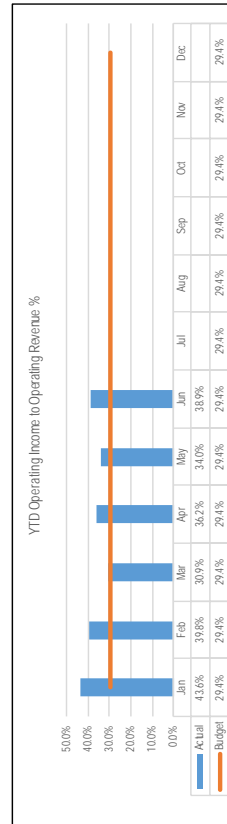
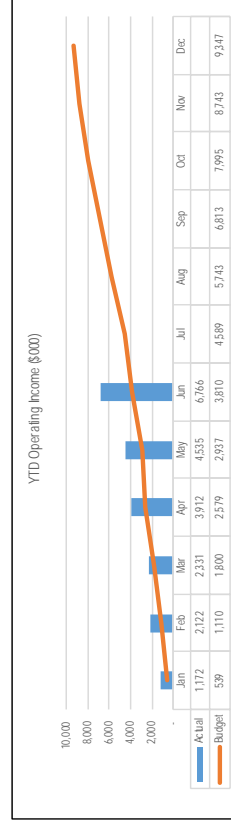
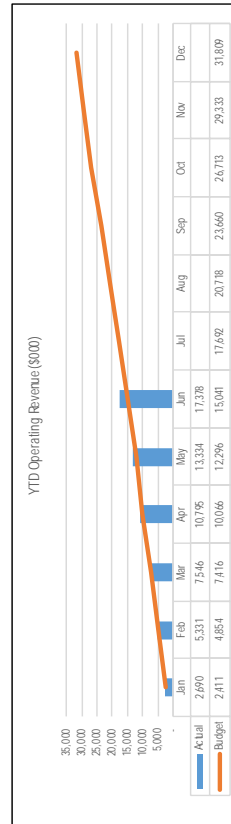
YTD COMPARATIVE (\$000)		Variance to	
Actual	Forecast	Budget	Prior Year
8,317	8,496	9,066	(749)
8,453	8,513	9,190	826
(136)	(17)	(213)	77
633	357	30	603
497	340	(183)	157
8.51	8.02	2.38	6.13
1,282	(77)	(1,941)	3,223



DASHBOARD - CITY DIVISION JUNE 2017



	Actual	FC	Budget	PY	Variance to
YTD COMPARATIVE (\$000)					
Operating Revenues	17,378	17,247	15,041	14,851	131 2,337 2,527
Less Operating Expenses	10,612	10,812	11,231	9,952	200 619 (660)
Operating Income	6,766	6,435	3,810	4,899	331 2,956 1,867
Other income (expenses)	(7,803)	(7,875)	(9,782)	(9,339)	72 1,979 1,536
Net Income	(1,037)	(1,440)	(5,972)	(4,440)	403 4,935 3,403
Debt Service Coverage	1.46	1.41	1.04	1.19	0.05 0.42 0.27
Net Cash Flows	676	269	(3,105)	(3,491)	407 3,781 4,167



Lehigh County Authority

System Operations Review - June 2017

Presented: July 24, 2017

Critical Activities	System	Description	Jun-17	2017-to-Date	2016 Totals	Permit
			Daily Avg (MGD)	Daily Avg (MGD)	Daily Avg (MGD)	Daily Max (MGD)
Water Production	Allentown	Total	21.95	21.35	20.41	39.0
		Schantz Spring	6.14	6.39	5.91	9.0
		Crystal Spring	3.90	3.90	3.86	4.0
		Little Lehigh Creek	11.84	10.98	10.46	30.0
		Lehigh River	0.07	0.07	0.18	28.0
	Central Lehigh	Total	10.47	9.29	9.27	19.04 MGD Avg
		Feed from Allentown	7.02	7.03	5.99	7.0 MGD Avg 10.5 MGD Max
		Well Production (CLD)	3.45	2.26	3.28	8.54 MGD Avg
		Sum of all (12) other Suburban Water Systems	0.18	0.17	0.19	1.71 Sum of all wells
Wastewater Treatment		Kline's Island	30.76	30.82	29.67	40.0
		Pretreatment Plant	4.53	4.32	4.33	5.75 (design capacity)
		Sum of all (5) other Suburban WW Systems	0.17	0.17	0.17	0.36
			Jun-17	2017-to-Date	2016 Totals	
Precipitation Totals (inches)			5.3	22.48	36.82	
Compliance Reports Submitted to Allentown			19	159	269	
Notices of Violation (NOVs)		(Allentown + Suburban)	0	0	3	
Sanitary Sewer Overflows (SSOs)/Bypasses		(Allentown + Suburban)	2	12	16	
Main Breaks Repaired		Allentown	1	10	19	
		Suburban	2	5	11	
Customer Service Phone Inquiries		(Allentown + Suburban)	2,255	13,721	28,099	
Water Shutoffs for Non-Payment		(Allentown + Suburban)	164	902	1,685	
Injury Accidents		(Allentown + Suburban)	1	5	10	
Emergency Declarations		Allentown	0	(2) @ \$51,235	(2) @ \$87,079	
		Suburban	0	0	(1) @ \$33,495	

Significant Repairs:

KIWWTP Primary Digester #1 cover replacement is going well and construction is scheduled to be complete by the end of by Q3 2017. The lower skin has been leak tested and was re-installed on 7/12. The upper skin is currently being welded onto the frame. Concrete ballast and the mixing system will need to be installed prior to start-up.

Description of NOVs and/or SSOs:

There was (1) SSO in the city and (1) bypass in suburban during June. The city SSO resulted from a blockage on an 8" sanitary line. The bypass in suburban happened at Heidelberg Heights WWTP and resulted from a heavy rain event that dropped 3" of rain within a 12 hour period.

Other Highlights:

In the Central Lehigh Division, the flushing program continues and as of July 10, 59/192 (31%) miles of distribution main have been flushed. The valve and hydrant maintenance program is in-progress and as of July 6, 795/1,515 hydrants (52%) have been exercised, producing 489 work orders and 18 high priority work orders for malfunctioning hydrants.