



## BOARD MEETING AGENDA – February 12, 2018

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](http://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

- *January 22, 2018 Board meeting minutes*

4. Public Comments

5. Action / Discussion Items:

### **FINANCE AND ADMINISTRATION**

#### **WATER**

- *Allentown Division – PA Rapid Bridge Replacement Project of the Hamilton Street Bridge crossing Cedar Creek (blue)*

#### **WASTEWATER**

- *Suburban Division – Park Pump Station Upgrade Design (green)*
- *Suburban Division – Chestnut Street Bridge Replacement (yellow)*

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

7. Monthly Financial Review (2<sup>nd</sup> Board meeting per month) – **December report attached**

8. Monthly System Operations Overview (2<sup>nd</sup> Board meeting per month)

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.*

February 26, 2018

March 12, 2018

March 26, 2018

#### **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**

### **January 22, 2018**

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The Meeting of the Lehigh County Authority was called to order at 12:00 p.m. on Monday, January 22, 2018, at which time Chairman Nagle called an Executive Session regarding personnel. 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, Pat Mandes, Chuck Volk, Chris Moughan, John Parsons, Susan Sampson, and Lisa Miller.

The Executive Session ended at 12:05 p.m.

The Regular Meeting of the Lehigh County Authority was called to order at 12:05 p.m.

### **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.

Liesel Gross noted there is an informational item to be added to the Agenda under *Water*. There will also be an Executive Session at the end of the regular agenda to discuss potential litigation. There will also be a 2017 *Year-In-Review* discussion under Staff Comments.

Chairman Nagle announced that the Board received their packets of meeting information prior to the meeting.

### **APPROVAL OF MINUTES**

#### **December 11, 2017 Regular Meeting Minutes**

Richard Bohner and Brian Nagle suggested two corrections for grammar and word choice. On a motion by Richard Bohner, seconded by Norma Cusick, the Board approved the Minutes of the December 11, 2017 meeting as corrected (9-0).

### **PUBLIC COMMENTS**

None.

Chairman Nagle stated that LCA received a Certificate of Achievement for Excellence in Financial Reporting from the Government Finance Officers Association for its Comprehensive Annual Financial Report for the Fiscal Year ended December 31, 2016. He congratulated the staff members who worked on it for doing a fine job.

### **ACTION AND DISCUSSION ITEMS**

#### **Extension of Authority Term (Resolution No. 1-2018-1)**

Liesel Gross explained that the resolution proposes an amendment to extend the Authority's term of existence for a full additional fifty years. The Authority's current charter ends June 9, 2049. The extension is necessary to accommodate financing for the Authority's upcoming capital improvements for its systems utilizing favorable financing rates. Brad Landon explained that once the resolution is passed by the Board, it will go before the Board of Commissioners of Lehigh County for

consideration and if approved, then to the Department of State of the Commonwealth of Pennsylvania for approval. The fifty years will begin on the date approved by the Department of State. Since financing is limited by the charter, and considering the long life of the Authority's assets, it would be beneficial to be able to utilize reasonable and favorable financing for a period longer than thirty years at times. Deana Zosky asked if it would be beneficial for the Authority to educate the new County Commissioners and County Executive on the Authority, its services and value to the community. Ms. Gross said she would plan to offer such a presentation to the County.

On a motion by Linda Rosenfeld, seconded by Norma Cusick, the Board approved Resolution No. 1-2018-1 (9-0).

### **LCA 2020 Action Plans – Part 1**

Liesel Gross explained the process the staff is using to develop strategic goals and action plans, utilizing the Effective Utility Management (EUM) framework. Of the ten EUM attributes identified, the Authority has selected four as primary strategies: Product Quality, Financial Viability, Infrastructure Stability, and Employee & Leadership Development. Through 2017 these strategies have been refined, and the next step is to develop three-year action plans, which the staff is calling its "LCA 2020 Action Plan." The two attributes first addressed are Product Quality and Financial Viability. Items from the LCA 2020 Action Plan were highlighted and briefly reviewed. Deana Zosky asked if the EUM framework also provides tools to measure performance including leading and lagging indicators. Ms. Gross stated that American Water Works Association has a utility benchmarking program consisting of hundreds of key performance indicators (KPIs) that match up with the EUM program. The Authority has used this benchmarking tool to select eleven measures that address the strategies selected. She explained that while those KPIs have been selected and are noted in the Authority's LCA 2020 Action Plan, gathering the appropriate data to display those measures has been challenging and will be a priority for 2018 to complete. Ms. Gross will provide the Action Plans for the Infrastructure Stability and Employee & Leadership Development strategies for Board review in February.

### **2018 Deep Freeze Report**

Liesel Gross presented a PowerPoint presentation regarding the many main breaks and service line leaks in both the Suburban and Allentown divisions due to the effects of the deep freeze weather that occurred from December 31<sup>st</sup> thru January 15<sup>th</sup>. Ms. Gross called attention to the list of employees who went above and beyond to perform the work and respond to the emergencies. Chairman Nagle thanked Ms. Gross for providing the report and also thanked the employees and management for all the work to get the Authority back in service and assisting our customers.

### **MONTHLY PROJECT UPDATES/INFORMATION ITEMS**

Richard Bohner inquired about the Schantz Spring Main replacement project and its progress. Chuck Volk replied the project is substantially complete. Mr. Bohner also inquired about the Suburban Division Water Main Replacement Cycle 1 & 2 project. Mr. Volk said this project is complete and can be removed from the list.

Scott Bieber inquired about the status of the stream monitoring project and if it can be added to the project updates. John Parsons said he will include it in the next project status report. Mr. Bieber also inquired about the Upper Milford – CLD Interconnection Project (Kohler Tract) regarding the offers made to the two property owners regarding easements. Chuck Volk replied that consideration for the Hatfield Meats property has been agreed upon between the parties and the documents are moving forward, however, the Engelman property has not yet responded, which could result in the Authority needing to move forward with other measures.

Deana Zosky asked for an update on the Authority's plan to meet with EPA regarding the Administrative Order. Liesel Gross noted the meeting has not been scheduled yet, but all the parties are looking at dates in March. She confirmed that the submission of a capital improvements / corrective action plan will be delayed until after this meeting takes place.

Scott Bieber inquired about the Heidelberg Heights Sanitary Sewer Rehabilitation Project and asked if these customers are on common rates and if costs could be spread out to minimize impact to these customers. Liesel Gross explained that the Heidelberg Heights sewer system is on common rates, but that the Suburban wastewater division is very small so that large projects will have a significant rate impact unless alternative funding sources are available.

### **MONTHLY FINANCIAL REVIEW**

Ed Klein reported that due to an extended monthly close out to accommodate year-end processes, the December 2017 report will be provided at the first meeting in February.

### **MONTHLY SYSTEM OPERATIONS OVERVIEW**

John Parsons reviewed the Monthly System Operations Overview report for December 2017. Linda Rosenfeld commented on the amount of customer service calls received in December 2017 compared to those number of calls received during the cold snap.

### **STAFF COMMENTS**

Liesel Gross provided a handout, 2017 Year in Review – Annual performance Review & Discussion, to the Board highlighting the milestones and challenges of 2017. Ms. Gross pointed out an area that needs attention in the year ahead is the re-engineering of the budget development process so that capital improvements planning, budgeting, forecasting and rate-setting work together as a single, integrated process. She highlighted some barriers that must be overcome such as the complex payroll process and the combined departmental budgets which make it difficult for managers to track expenses. After the internal processes are reviewed and streamlined, financial policies will be developed for Board discussion so the Authority has a defined path forward regarding how to pay for capital expenditures and a clearer understanding of the rate impact of the decision to borrow or pay for such expenses via operating revenue. Ms. Gross also highlighted the project with CH2M to evaluate the long-term financial performance of the lease of the Allentown water and sewer system, and noted results of that project will be discussed in the upcoming month. Some discussion followed.

### **SOLICITOR'S COMMENTS**

None.

### **PUBLIC COMMENTS / OTHER COMMENTS**

None.

Chairman Nagle announced that at the February 26<sup>th</sup> meeting, the Board of Directors will choose its officers for 2018. Norma Cusick will poll the Board members for their interest to serve as an officer of the Board.

Chairman Nagle called a break at 1:15 p.m. The meeting reconvened at 1:22 p.m.

### **EXECUTIVE SESSION**

An Executive Session was held at 1:22 p.m. to discuss personnel and potential litigation. The Executive Session ended at 2:40 p.m.

**ADJOURNMENT**

There being no further business, the Chairman adjourned the meeting at 2:40 p.m.

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Richard H. Bohner  
Secretary

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## MEMORANDUM

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**Date:** February 12, 2018

**To:** Lehigh County Authority Board  
**From:** Jason Peters, Charles Volk  
**Subject:** Allentown Division- Hamilton Street Cedar Creek Bridge Water Main Relocation Project  
Construction Phase

**MOTIONS / APPROVALS REQUESTED:**

No.	Item	Amount
1	Capital Project Authorization – Construction Phase	\$218,060
2	Professional Services Authorization – Gannett Fleming, Inc. (1)	\$30,060

*(1) Included in the Capital Project Authorization.*

**PROJECT OVERVIEW:** As part of the Pennsylvania Department of Transportations (PennDOT) Rapid Bridge Replacement Program, this project involves the superstructure replacement of the Cedar Creek Bridge (Project) located on Hamilton Street in the vicinity of Hamilton Family Restaurant. LCA Allentown Division water facilities are impacted by the Project requiring the relocation of approximately 500 linear feet of 6-inch diameter water main. The new water main will be replaced within newly acquired state right-of-way and City of Allentown property just south of the new bridge while still maintaining private status of the line. The water main relocation will be incorporated in PennDOT construction contract for the Project and be completed by 2019.

**FUNDING:**

The Project will be initially funded by the Lehigh County Authority (LCA) Allentown Division, and the water main relocation costs for both design and construction will be eligible for 100-percent reimbursement by PennDOT, as the existing facilities are located in a private easement and not in the existing PennDOT Right-of-Way (“private status”). The final reimbursable amount will be determined by PennDOT.

**PROJECT STATUS:**

In November 2016 the Board approved the Design Phase of the Project and authorized professional services to Gannett Fleming, Inc. (GF). Working closely with all necessary LCA staff, City of Allentown (COA) and other outside agencies, GF obtained all approvals and permits required for Construction Phase of this project.

**THIS APPROVAL- CONSTRUCTION PHASE:**

Include the replacement of approximately 500 linear feet of 6-inch water main located on Hamilton Street in the vicinity of the Hamilton Family Dinner.

**CONSTRUCTION CONTRACT:**

This project will be incorporated within PennDOT’s bridge construction contract. The exact cost and reimbursable amount will be determined by PennDOT. LCA anticipates that both design and construction phases of this project will be approximately 100-percent reimbursable by PennDOT because the existing facilities are located in private easement and not in the existing PennDOT Right-of-Way (“private status”).

**PROFESSIONAL SERVICES:**

To assure continued continuity and efficiencies for this phase of the project, Capital Works recommends retaining our design phase engineer GF to provide construction related services for the Allentown Division Hamilton Street Cedar Creek Bridge Relocation Project. The following table summarizes the professional services to be performed:

<b>Professional Services</b>
1. Provide construction engineering services.
2. Provide construction management services.
3. Provide construction inspection services.

**CONSULTANT PROJECT BACKGROUND:**

Among other projects, GF is currently our consultant for both the Allentown Division Cycles 1-6 and Suburban Division Cycles 1-3 Main Replacement Projects. During these projects both GF and LCA have established an excellent partnership working directly with the City of Allentown (COA), other municipalities, and local agencies producing highly detailed and comprehensive projects that have met and exceeded many goals. These goals include areas such as scheduling and planning, permitting approval, COA department approvals as well as cooperatively working with other agencies and utility owners. All of which have mitigated many potential costs and or delays to the design while providing minimal construction cost change orders during the respective construction phase of each project.

**FUTURE AUTHORIZATIONS:**

Currently none anticipated at this time

## CAPITAL PROJECT AUTHORIZATION

<b>PROJECT NO.:</b>	AD-W-18-1	<b>BUDGET FUND:</b>	Allentown Div\Water\Capital
<b>PROJECT TITLE:</b>	<b>Allentown Division –Hamilton Street Cedar Creek bridge Water Main Relocation Project</b>	<b>PROJECT TYPE:</b>	<input checked="" type="checkbox"/> Construction <input type="checkbox"/> Engineering Study <input type="checkbox"/> Equipment Purchase <input type="checkbox"/> Amendment
<b>THIS AUTHORIZATION:</b>	<b>\$218,060</b>		

**DESCRIPTION AND BENEFITS:**

As part of the Pennsylvania Rapid Bridge Replacement Program, the replacement of the Cedar Creek Bridge on Hamilton Street has required the relocation of approximately 500 linear feet of 6-inch water main.

The relocation of this main is critical for the reliability of water service for our customers and the replacement of the Cedar Creek Bridge.

Please reference the cover Memo for additional information.

**Authorization Status:**

Previous Authorizations	
<b>Design Phase</b>	<b>\$124,500</b>
REQUESTED THIS AUTHORIZATION	
<b>Construction Phase</b>	
<b>Staff</b>	<b>\$20,000</b>
<b>Engineering Consultant</b>	<b>\$30,060</b>
<b>Construction phase Services</b>	
<b>General Construction Estimate</b> <small>(incorporated into PennDot prime highway contract)</small>	<b>\$138,000</b>
<b>Contingencies</b>	<b>\$30,000</b>
<b>Total This Authorization</b>	<b>\$218,060</b>
Total Estimated Project	<b>\$342,560</b>

**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

**PROFESSIONAL SERVICES AUTHORIZATION**

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

**Date:** February 12, 2018

**Requested By:** Jason Peters

**Approvals**

**Department Head:** \_\_\_\_\_

**Chief Executive Officer:** \_\_\_\_\_

**Allentown Division – Hamilton Street Cedar Creek Bridge Relocation Project**

*Previous Authorization – Design Phase: \$ 97,000*

**This Authorization – Construction Phase: \$30,060**

Gannett Fleming, Inc. will perform the construction related service for the Allentown Division – Hamilton Street Cedar Creek Bridge Relocation Project in the following Professional Services.

<b>Professional Services</b>
1. Provide construction engineering services.
2. Provide construction management services.
3. Provide construction inspection services.

Please reference the cover Memo for additional information.

**Cost Estimate (not to be exceeded without further authorization):** \$127,060

**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:** \_\_\_\_\_



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**MEMORANDUM**

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**Date:** February 12, 2018

**To:** Lehigh County Authority Board  
**From:** Charles Volk, P.E., Chief Capital Works Officer  
**Subject:** Suburban Division – Park Pump Station Upgrade

**MOTIONS /APPROVALS REQUESTED:**

No.	Item	Amount
1	<u>Capital Project Authorization – Construction Phase</u>	\$4,388,136
2	<u>Construction Contract – General (*):</u> <u>Blooming Glen Contractors</u>	\$2,995,621
3	<u>Construction Contract- Electrical (*):</u> <u>Shannon A. Smith, Inc.</u>	\$839,000
4	<u>Professional Services Authorization (*):</u> <u>Construction Phase Engineering – Whitman, Requardt, and</u> <u>Associates, LLP (WRA)</u>	\$219,460
5	<u>Professional Services Authorization (*):</u> <u>Construction Phase Inspection Services – Cowan Associates, Inc.</u>	\$33,995

(\* ) Included in Capital Project Authorization

**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. This critical facility 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.

**PROJECT OBJECTIVE**

The purpose of this project is to restore the station to its design capacity (level of service), extend the service life, and enhance station reliability. The scope of work includes the replacement of extended shaft type pumps with dry pit submersible type pumps, replacement of the electrical controls and rheostat drives with modern controls and variable frequency drives, upgrade of HVAC system, replacement of roof system, replacement of (inoperable) force main drain valve, replacement of wet well level control system, replacement of influent slide gate, installation of new hoist system and related structural members, construction of new floor opening and hatch to access dry well, electrical service upgrade, SCADA system upgrade and associated new instrumentation, and replacement of internal process piping, valves and fittings in order to complete a comprehensive structural/mechanical/electrical upgrade to the station.

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

**FINANCIAL**

The Project will be funded by the LCA Suburban Division.

**PROJECT STATUS**

The DEP Part 2 Water Quality Management Permit was approved (dated 9/27/17permit) and design was completed by the end of November 2017. The project was advertised for bid (via PennBid) on 12/13/17, the pre-bid meeting was held on 1/4/18, and bids were opened on 2/1/18.

**THIS APPROVAL:** Construction Phase

**BID SUMMARY**

Ten bids were received for the General Construction Contract, summarized in Table No. 1 as follows:

<b>Table 1 – Bid Results</b>	
<b>GENERAL CONSTRUCTION</b>	
<b>Contractor</b>	<b>Total Bid</b>
<i>Blooming Glen Contractors</i>	<b>\$2,995,621</b>
<i>Worth &amp; Company, Inc.</i>	<b>\$3,133,830</b>
<i>Eastern Environmental Contractors, Inc.</i>	<b>\$3,323,100</b>
<i>LB Industries, Inc.</i>	<b>3,651,740</b>
<i>Walabax Construction Services, Inc.</i>	<b>\$3,705,500</b>
<i>Johnston Construction Co.</i>	<b>\$3,784,895</b>
<i>Quandel Construction Group, Inc.</i>	<b>\$3,929,300</b>
<i>JEV Construction, LLC</i>	<b>\$4,010,500</b>
<i>Michael F. Ronca Sons, Inc.</i>	<b>\$4,206,000</b>
<i>PSI Pumping Solutions, Inc.</i>	<b>\$4,561,300</b>

The engineer's construction cost opinion for the General Contract (GC) is \$3,676,500. The low GC bidder is Blooming Glen Contractors from Skippack, PA. Blooming Glen's bid documents are satisfactory and complete. The firm has completed numerous projects for LCA at Kline's Island WWTP within the last few years, including Odor Tower Nos. 1 and 3 Replacement, Clarifier Nos. 5 and 6 Drive Replacement, Main Pump Station Upgrade, Influent Screen Upgrade, and MCC Upgrade. In LCA's Suburban Division, the firm's recently completed projects include Reservoir No. 3 Mechanical Upgrade and Water and Wastewater Facilities Asset Management Upgrade, and they have started construction on the Spring Creek Pump Station Upgrade. The firm has consistently performed well and completed all projects in accordance with the contract requirements. Capital Works recommends authorization to award the GC contract to Blooming Glen Contractors.

Eight bids were received for the Electrical Construction Contract, summarized in Table No.2 as follows:

<b>Table 2 – Bid Results</b>	
<b>ELECTRICAL CONSTRUCTION</b>	
<b>Contractor</b>	<b>Total Bid</b>
<i>Shannon A. Smith, Inc.</i>	<b>\$839,100</b>
<i>Eastern Environmental Contractors, Inc.</i>	\$874,400
<i>PSI Pumping Solutions, Inc.</i>	\$899,995
<i>BSI</i>	\$904,000
<i>Phillips Bros. Electrical Contractors, Inc.</i>	\$923,000
<i>Orlando Diefenderfer Electric Co.</i>	\$992,000
<i>B &amp; R Electrical Contractors, Inc.</i>	\$1,201,179
<i>Joyce Electrical, Inc.</i>	\$1,263,000

The engineer's construction cost opinion for the Electrical Contract (EC) is \$1,390,900. The low EC bidder is Shannon A. Smith, Inc. from Meyerstown, PA. The contractor's bid documents are satisfactory and complete. The firm specializes in electrical and HVAC work. We reviewed their qualifications and experience documents and checked on their references, and we received positive comments regarding their work on numerous municipal, military, institutional, and corporate electrical projects, primarily in central and south-central PA. Their clients were satisfied with the firm's performance and the projects were completed on schedule without significant change orders. Capital Works recommends authorization to award the EC contract to Shannon Smith, Inc.

**MATERIAL PROCUREMENT:** N/A

**PROFESSIONAL SERVICES**

Professional Services will be required for construction engineering and construction inspection services. The design engineer, Whitman, Requardt and Associates, Inc. (WRA) is intimately familiar with the project and will provide construction engineering services (see attached Professional Services Authorization). Cowan Associates, Inc. (Cowan) has performed field inspection services on numerous mechanical and electrical construction projects for LCA and will provide construction inspection services (see attached Professional Services Agreement).

**SCHEDULE**

Assuming approval at the February 12, 2018 Board meeting, the Notice to Proceed is anticipated to be issued by mid-March 2018 with construction completed by early summer 2019.

**FUTURE AUTHORIZATIONS**

None

# CAPITAL PROJECT AUTHORIZATION

<b>PROJECT NO.:</b>	SD-S-15	<b>BUDGET FUND:</b>	Suburban Div\Wastewater\Capital
<b>PROJECT TITLE:</b>	Park Pump Station Upgrade - Construction	<b>PROJECT TYPE:</b>	<input checked="" type="checkbox"/> Construction <input type="checkbox"/> Engineering Design <input type="checkbox"/> Equipment Purchase <input type="checkbox"/> Amendment
<b>THIS AUTHORIZATION:</b>	\$ 4,388,136		
<b>TO DATE (W/ ABOVE)</b>	\$ 4,765,144		

**DESCRIPTION AND BENEFITS:**

**Pump Station Rehabilitation/Improvements – Construction Contracts:**

This project consists of two construction contracts (general and electrical) for the upgrade of the Park Pump Station. The scope of work includes the replacement of extended shaft type pumps with dry pit submersible type pumps, replacement of the electrical controls and rheostat drives with modern controls and variable frequency drives, upgrade of HVAC system, replacement of roof system, replacement of (inoperable) force main drain valve, replacement of wet well level control system, replacement of influent slide gate, installation of new hoist system and related structural members, construction of new floor opening and hatch to access dry well, electrical service upgrade, SCADA system upgrade and associated new instrumentation, and replacement of internal process piping, valves and fittings in order to complete a comprehensive structural/mechanical/electrical upgrade to the station.

The objective of the project is to restore the station to its original design capacity (level of service), extend the service life of the station, and enhance station reliability for this important facility.

Previous Authorizations	
Design Phase (WRA)	\$377,008

<b>REQUESTED THIS AUTHORIZATION</b>	
<b>Construction Phase</b>	
<b>General Construction - Blooming Glen Contractors</b>	<b>\$2,995,621</b>
<b>Electrical Construction - Shannon A. Smith, Inc.</b>	<b>\$839,100</b>
<b>Staff</b>	<b>\$100,000</b>
<b>Professional Services:</b>	
<b>Construction Engineering Services - WRA</b>	<b>\$219,460</b>
<b>Construction Inspection Services –Cowan</b>	<b>\$33,955</b>
<b>Contingency</b>	<b>\$200,000</b>
<b>Total This Authorization</b>	<b>\$4,388,136</b>

Future Authorization	
none	

Total Estimated Project	\$4,765,144
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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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**PROFESSIONAL SERVICES AUTHORIZATION**

**Professional:**

Cowan Associates, Inc.  
Att: Todd Nagle, P.E.  
120 Penn-Am Drive, PO Box 949  
Quakertown, PA 18951

**Date:** 2/12/2018

**Requested By:** Charles Volk

**Approvals**

**Department**

**Head:** \_\_\_\_\_

**Chief Executive**

**Officer:** \_\_\_\_\_

**Description of Services:**

**Construction Phase Inspection Services - Park Pump Station Upgrade Project**

This contract consists of providing construction phase services for the upgrade of the Park Pump Station. Cowan's services are to consist of the following scope:

- Preconstruction meeting attendance and meeting minutes
- Project meeting attendance and meeting minutes
- Project coordination and scheduling
- On-site part time inspection services and reporting
- Review of contractor payment applications
- Project photo documentation
- Substantial completion inspection and punchlist
- Final completion inspection and punchlist
- Start up and contract closeout assistance

**Cost Estimate (not to be exceeded without further authorization):** Proposed consulting service described in the Cowan proposal dated 1/10/18 is on a lump sum basis not to exceed **\$33,955**.

**Time Table and Completion Deadline:**

Construction is anticipated to be completed by June 2019.

**(For Authority Use Only)**

**Authorization Completion:**

**Approval:** \_\_\_\_\_ **Actual Cost:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Capital Project SD-S-15, Park Pump Station Rehabilitation/Improvements





Lehigh County Authority

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## PROFESSIONAL SERVICES AUTHORIZATION

**Professional:**

Whitman, Requardt, and Associates,  
LLP

Att: Mike Olivier, P.E., Vice President  
801 S. Carolina St  
Baltimore, MD 21231

**Date:** 2/12/2018

**Requested By:** Charles Volk

**Approvals**

**Department**

**Head:**

**Chief Executive**

**Officer:**

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### Description of Services:

#### Construction Phase Engineering - Park Pump Station Upgrade Project

This contract consists of providing construction phase services for the upgrade of the Park Pump Station. WRA's services are to consist of the following scope:

##### Task 1 – Construction Meetings

- Attend pre-construction and monthly progress meetings at LCA
- Attend special site meetings to resolve conflicts.

##### Task 2 – Construction Administration

- Prepare conformed documents
- Respond to contractors' requests for information (RFI).
- Shop drawings: review for conformance with the specifications; execute shop drawing submittals
- Review change order requests submitted by the contractors.
- Attend start up and testing for new pumps.

##### Task 3 – Field Inspections

- Provide professional engineer on-site time for structural issues.
- Provide professional engineer on-site time for electrical issues.

##### Task 4 – Regulatory Agency and Contract Closeout Documentation

- Conduct substantial completion inspection for each prime contract; issue certificate of substantial completion,
- Assist resident inspector with a substantial completion punchlist for each contract.
- Schedule and attend final inspection site visit with PaDEP; file construction completion paperwork with PaDEP.
- Administer contract closeout procedures, including review and approval of O&M manuals, verification of adequate training, and monitor start-up procedures.
- Conduct final completion inspection for each prime contract.
- Provide as-built drawings in paper and electronic format.

**Cost Estimate (not to be exceeded without further authorization):** Proposed consulting service described in the WRA proposal dated February 5, 2018 is on a lump sum basis not to exceed **\$219,460**.

**Time Table and Completion Deadline:**

Design work to be anticipated to be completed by March 21, 2017.

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**(For Authority Use Only)**

**Authorization Completion:**

**Approval:** \_\_\_\_\_ **Actual Cost:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Capital Project SD-S-15, Park Pump Station Rehabilitation/Improvements

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## MEMORANDUM

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**Date:** February 12, 2018

**To:** Lehigh County Authority Board  
**From:** John Keck, Charles Volk  
**Subject:** Suburban Division - Chestnut Street (S.R. 0029) Sanitary Sewer Main Relocation Project Design Phase

**MOTIONS / APPROVALS REQUESTED:**

No.	Item	Amount
1	Capital Project Authorization – Design Phase	\$31,600
2	Professional Services Authorization – AASA Land Surveyors. (1), (2)	\$6,600

- (1) *Included in the Capital Project Authorization.*  
(2) *Does not include Construction phase related engineering services.*

**PROJECT OVERVIEW:** Norfolk Southern Railroad is replacing and relocating a bridge crossing over the railroad on Chestnut Street (S.R. 0029) in Upper Milford Township. As part of the bridge replacement/relocation, the Pennsylvania Department of Transportations (Penn DOT) is realigning the Chestnut Street (S.R. 0029) approach to the new bridge, and this project involves the super structure replacement of the railroad bridge and Chestnut Street (S.R. 0029) realignment (Project) located in the vicinity of Sell’s Truck Repair. LCA Suburban Division sanitary sewer facilities are impacted by the Project requiring the relocation of approximately 500 linear feet of 8-inch diameter sanitary sewer main and adjustment of five (5) manhole tops. The new sanitary sewer main will be replaced within newly acquired state right-of-way, and within an LCA easement just north of the new bridge, while maintaining private status of the line. We have been informed by PennDOT that the sanitary sewer main relocation work will be incorporated into PennDOT construction contract for the bridge project. Work is anticipated to begin by the end of June 2019. Design needs to commence shortly in order to satisfy PennDOT’s project milestones.

**FUNDING:**

The Project will be up-front funded by the LCA Suburban Division; however, based on discussions with PennDOT we have been informed that the sanitary sewer main relocation costs for both design and construction will be approximately 75-percent reimbursable by PennDOT, as the existing facilities are largely located within the existing PennDOT right-of-way. The exact reimbursable amount will be determined by PennDOT.

**PROJECT STATUS:**

Pending Board approval of the Design Phase

**THIS APPROVAL- DESIGN PHASE**

Capital Works recommends retaining the services of Arthur A. Swallow Associates (AASA) to provide design related services for the Suburban Division - Chestnut Street (S.R. 0029) Realignment Project. AASA has worked on numerous PennDOT utility relocation projects and is familiar with the agency’s requirements. The following table summarizes the professional services to be performed:

<b>Professional Services</b>
1. Provide field survey to locate and verify sanitary sewer location and elevations.
2. Provide design services and plan deliverables for segments of sanitary sewer main to be relocated.
3. Coordination with PennDOT and LCA.

Also requested as part of this project approval is board adoption of the PennDOT standard resolution for cost sharing in the project. The adopted resolution is required by PennDOT.

**FUTURE AUTHORIZATIONS:**

Construction Phase: Request for Board approval for construction phase is anticipated for mid-2018 after PennDOT receives bids for the Project.

## CAPITAL PROJECT AUTHORIZATION

**PROJECT NO.:** SD-S-A **BUDGET FUND:** Suburban Division\Sewer\Capital

**PROJECT TITLE:** Suburban Division –Chestnut Street (S.R. 0029) Sewer Main Relocation Project **PROJECT TYPE:**

**THIS AUTHORIZATION:** \$31,600

- Construction
- Engineering Design
- Equipment Purchase
- Amendment

**DESCRIPTION AND BENEFITS:**

As part of the Norfolk Southern Railroad bridge replacement and Pennsylvania Department of Transportation realignment of the Chestnut Street (S.R. 0029) bridge approach, the replacement of the railroad bridge and roadway modifications have required the relocation of approximately 500 linear feet of 8-inch sanitary sewer main.

The relocation of this main is critical for the reliability of sanitary sewer service for our customers in Upper Milford Township, and required due to the replacement of the railroad bridge and realignment of Chestnut Street.

Please reference the cover Memo for additional information.

**Authorization Status:**

+

<b>REQUESTED THIS AUTHORIZATION</b>	
<b>Design Phase</b>	
<b>Staff</b>	<b>\$15,000</b>
<b>Engineering Design Phase Services - Art Swallow &amp; Associates</b>	<b>\$6,600</b>
<b>Contingencies (1)</b>	<b>\$10,000</b>
<b>Total This Authorization</b>	<b>\$31,600</b>

<b>Future Authorization</b>	
<b>Construction Phase</b>	<b>\$250,000</b>

<b>Total Estimated Project</b>	<b>\$281,600</b>
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*(1) Includes subsurface investigations such as geo-tech work, soft digs, ground penetrating radar if required; also permit fees and other miscellaneous costs.*

**REVIEW AND APPROVALS:**

\_\_\_\_\_ Date \_\_\_\_\_ Chief Executive Officer \_\_\_\_\_ Date

\_\_\_\_\_ Date \_\_\_\_\_ Chairman \_\_\_\_\_ Date

Chief Capital Works Officer

**Resolution No. \_\_\_\_\_**

**Penn DOT Resolution for Cost Sharing – Utility Relocation  
PA Route 29 Bridge Relocation**

In accordance with the requirements of the Pennsylvania Department of Transportation Design Manual – Part 5, Chapter 8.1C the Lehigh County Authority does hereby authorized the submission of the attached request for the Pennsylvania Department of Transportation to provide a 75.00 per centum reimbursement to Lehigh County Authority for all costs, less any betterments, incurred in relocating our sanitary sewer facilities affected by the realignment of S.R. 0029, Section 07B between Station 702+00 and Station 722+50 necessitated by the Pennsylvania Department of Transportation Highway Improvement in Lehigh County.

Also, the Chief Executive Officer of said Authority be authorized and directed to sign a Utility Reimbursement Agreement on its behalf and that the Authority Solicitor be authorized and directed to attest the signature on the Utility Reimbursement Agreement for this highway project.

Adapted as a Resolution this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_  
(Day) (Month) (Year)

Attest: \_\_\_\_\_ By \_\_\_\_\_  
(Signature and Designation of Official Title) (Signature and Designation of Official Title)

(Seal)

Certification

I, \_\_\_\_\_ of the Lehigh County Authority attest that this Resolution, was  
(Signature and Designation of Official Title)

Officially adopted by the Lehigh County Authority Board of Directors at duly called meeting of the Authority.

(Seal)

\_\_\_\_\_  
(Signature and Designation of Official Title)



**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

**PROFESSIONAL SERVICES AUTHORIZATION**

**Professional:** AASA LAND SURVEYORS  
1003-1005 N. 19<sup>th</sup> Street  
Allentown, PA 18104

**Date:** February 12, 2018

**Requested By:** John Keck

Approvals

**Department Head:** \_\_\_\_\_

**Chief Executive Officer:** \_\_\_\_\_

**Suburban Division – Chestnut Street Bridge and Highway Relocation Project**

AASA Land Surveyors will perform surveying and design related services for the Suburban Division – Chestnut Street (S.R. 0029) Relocation Project in the following Professional Services.

<b>Professional Services</b>
1. Provide field survey for LCA facility location and elevation verification.
2. Provide design services and plan deliverables for relocated sewer main.
3. Coordination with PennDOT and LCA.

Please reference the cover for additional information.

**Design Phase Engineering:**

**Cost Estimate (not to be exceeded without further authorization):** \$6,600.00

**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:** \_\_\_\_\_

**FINANCE & ADMINISTRATION**

**ACTION ITEMS**

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**1. Board of Directors – Nomination of Officers – February 26, 2018**

The Board of Directors will nominate and approve officers for 2018 at the February 26, 2018 Board meeting.

**DISCUSSION ITEMS**

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**1. LCA 2020 Action Plans – Part 2 – February 26, 2018**

Discussion about LCA's 3-year action plans key performance indicators began in January 2018, focusing on the Financial Viability and Product Quality attributes from the Effective Utility Management (EUM) framework. At the February 26, 2018 Board meeting staff will present the action plans and key performance indicators developed for the remaining priority EUM goal areas, Infrastructure Stability and Employee & Leadership Development.

**INFORMATION ITEMS**

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**1. Recently Purchased Investments – Certificates of Deposit (CDs)**

CERTIFICATES OF DEPOSIT

23-Jan-18

Fund	Bank	Location	Gross Amount	Date of Purchase	Date Due	Net Rate %
WW Capac	PSDLAF Flex Pool		400,000.00	11/14/17	1/17/18	1.0
WW Capac	PSDLAF Flex Pool		155,000.00	11/14/17	1/17/18	1.0
WW Capac	PSDLAF Flex Pool		245,000.00	11/14/17	1/17/18	1.0
WW Capac	PSDLAF Flex Pool		600,000.00	11/14/17	1/17/18	1.0
Cons Wtr (2)	PSDLAF Flex Pool		1,000,000.00	11/14/17	1/17/18	1.0

Cons Wtr (2)	Consolidated Water (2)
LLRI CR	Little Lehigh Relief Interceptor Capital Reserves
Cons LL2 (314)	Consolidated Little Lehigh Relief Interceptor 2
WW Capac	Wastewater Capacity
2010 Wtr Cons A	2010 Water Construction, Series A Bond
Wtr R&R	Renewal and Replacement

**2. Developments**

Water system construction is occurring in the following developments:

- Spring View (Bortz Tract), 14 commercial units, UMT – No Change
- Trexler Business Center, 1 Commercial Lot with 6 commercial buildings, LMT – No Change
- Trexler Fields, Phase 1B/8/9, 100 residential lots (sfa), UMT – No Change

Water system plans are being reviewed for the following developments:

- 5354 Hamilton Blvd., 1 commercial lot, LMT – No Change
- 5374/5392 Hamilton Blvd., 1 Commercial lot, LMT



5329-5347-5357 Hamilton Blvd., 1 Commercial lot, LMT  
CVS, 1 commercial lot, LMT – No Change  
Diocesan Pastoral Center, 2 commercial lots, 3 additional lots and residual lot for existing cemetery, LMT – No Change  
Farr Tract, 17 residential lots (sfd), LMT – No Change  
Grant Street Townes, 18 residential lots (sfa), WashT – No Change  
Green Acres Mobile Home Court, master meter 590 existing units (sfd), UMT – No Change  
Hickory Park Estates, 3 residential lots (sfd), UMT – No Change  
Hillview Farms, 31 residential lots (sfd), LMT/SWT – No Change  
Indian Creek Industrial Park, 6 commercial lots, UMiIT, water and sewer – No Change  
Kohler Tract, 125 residential lots (sfa), UMiIT, water and sewer – No Change  
Lehigh Hills, Lot 5, Phase 1, 273 apartments & clubhouse, UMT – No Change  
Lower Macungie Township Community Center Expansion, 1 institutional lot, LMT  
Madison Village at Penn's View, 66 manufactured homes, 1 lot, LynnT, water and sewer – No Change  
Millbrook Farms, Section VI, 45 residential lots (sfd), LMT – No Change  
Morgan Hills, 40 residential lots (sfd), WeisT, water and sewer – No Change  
Parkland School District, new elementary school, 1 lot, UMT – No Change  
Schoeneck Road, Lot 1, 1 lot warehouse, LMT – No Change  
Shepherd's Corner, 1 commercial lot, LMT – No Change  
Spring Creek Properties Settlement Subdivision, Lot 1, 1 commercial lot, LMT – No Change  
Stone Hill Meadows, Phase 2, 85 residential units (sfd), LMT – No Change  
Weilers Road Twins, 82 residential lots (sfa), UMT – No Change  
Woodmere Estates, 60 residential units (sfd), UMT – No Change

Sewage Planning Modules Reviewed in Prior Month:  
None.

## WATER

### ACTION ITEMS

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1. **Allentown Division – PA Rapid Bridge Replacement Project of the Hamilton Street Bridge crossing Cedar Creek – February 12, 2018**

The project includes the replacement and relocation of approximately 500 linear feet of water main due to the super structure replacement of the Hamilton Street Bridge crossing Cedar Creek. The Design phase was approved at the December 2016 Board meeting. As of January 16, 2018 a preconstruction site meeting was conducted with the anticipation that the project will begin by late February 2018. It is anticipated that this work will be reimbursed 100% by the state and that the construction related activities will be incorporated within the state's work. The Construction Phase of this project will be recommended for authorization at the February 12, 2018 Board meeting.

### DISCUSSION ITEMS

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1. **Suburban Division – Asset Management Facility Upgrades – February 26, 2018**

Project includes the construction of improvements that were identified and prioritized in the Building Condition and Assessment Study prepared by D'Huy Engineering in accordance with LCA's asset management goal. The project scope includes structural, HVAC, and electrical/code improvements to be performed on facilities that were assigned a high risk score (high consequence and probability of failure). Nine (9) water facilities and two (2) wastewater facilities are part of the project scope. The project bids were opened on May 30, and authorization to award was given at the June 26, 2017 Board meeting. A final completion walk-through was conducted on 1/18/18 and the project will be closed out shortly. At the February 26, 2018 Board meeting, staff will present a brief review of the project achievements.

### INFORMATION ITEMS

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1. **Allentown Division – Pre-Lease Valve Replacements**

The project scope includes the replacement of approximately 50 inoperable valves in multiple locations throughout the City that existed prior to the lease settlement. The bid was authorized for award at the June 26, 2017 Board meeting. As of late November 2017, our contractor has completed 100% of their contract. LCA anticipates by end of February 2018 that the project will be closed out. The project is classified as uncompleted work and will be funded by the City of Allentown.

2. **Allentown Division – Schantz Spring Main Replacement**

The project is the replacement of approximately 2,000 linear feet of 1903 vintage 30-inch diameter water main in Martin Luther King, Jr. Boulevard from the Water Filtration Plant heading towards Schreibers Bridge. This project also includes addressing other leaks that were identified during the "SmartBall" leak detection work completed by the City of Allentown (COA). Bids were received on July 13, 2017. The Board approved the construction contract at the July 24, 2017 Board meeting, Notice to Proceed was issued August 29, 2017. As of December 15, 2017, our contractor has completed nearly 100% of all leak site repairs and 95% of the main line replacement on MLK Blvd. The contractor completed all pipeline installations the week of January 22, 2018 with final restoration to be completed in the weeks and months ahead, weather permitting. This project is identified as Schedule-7 Work and will be funded by LCA Allentown Division.

3. **Allentown Division – Schantz Spring Exposed Main Replacement**

This project will replace approximately 110 linear feet of the 30-inch diameter water main that supplies water from Schantz Spring to the Water Filtration Plant on the county's property at Cedarbrook where the line crosses a swale from I-78. The project will demolish the concrete culvert that carries the pipe over the swale and install a new pipe under the swale. The project will be funded by the LCA Allentown Division. The contractor has installed the pipeline. The Schantz Spring raw water line was disinfected the week of January 22. The contractor is taking bacteriological samples prior to placing the main back in service.

4. **Allentown Division – Water Plant: Carbon Dioxide Feed System**

The project consists of the addition of a carbon dioxide feed system at the Allentown Water Plant. The original plant, built in 1928, didn't include an acid feed system, and neither upgrade in 1953 or 1995 added one either. With the present conversion from alum to polyaluminum chloride (PACl) as the plant's primary coagulant, proper treatment requires that the raw water must be kept within a very small pH range. Without an acid feed system, it is impossible to do that. Board approval for the construction phase is expected in February or March. Submission of a Major Permit Application with PaDEP is currently in-process. Installation and startup is expected by mid-April 2018.

5. **Suburban Division – CLD Auxiliary Pump Station Project**

The project will feature the installation of a new booster pumping station and water main extension to pump water from the Lower Pressure System to the Upper Pressure System. The project will also involve installation of a SCADA system. The Public Water Supply (PWS) permit application package was submitted to DEP. Design and permitting of the pump station will be completed in early 2018, and the station will be constructed in 2018 **(No Change)**.

6. **Suburban Division – Upper Milford-CLD Interconnection Project (Kohler Tract)**

The project will feature the installation of a new booster pumping station and water main extension to pump water from the Central Lehigh Division (CLD) to the 125-lot Kohler Tract subdivision in Upper Milford Township. Design of the pump station is under way and the Public Water Supply (PWS) permit application package was submitted to DEP. We made offers to two property owners where easements are needed **(No Change)**.

7. **Suburban Division – Pine Lakes Pumping Station Improvements**

This project was originally bid in July 2016 and bids were subsequently rejected due to the lack of competitiveness and significant exceedance of the engineer's estimate. The project was modified and rebid in May 2017 resulting in greater bidder interest and lower prices. The purpose of this project is to upgrade the original hydro-pneumatic well station (built in mid-1970s) to continue the level of service, replace aged and problematic equipment, reduce the probability and consequence of risk, and prolong the useful life of the station. The station is to be upgraded to a double pumping variable speed system with full SCADA telemetry. A pre-construction meeting was held in August and work began in fall 2017 **(No Change)**.

9. **Suburban Division – Crestwood Alternate Water Supply**

The project consists of abandonment of existing wells and storage tank currently serving higher elevation customers and a connection of the pumping station to the main North Whitehall Division System. The project will also involve installation of a SCADA system. The project bids were opened on July 7 and authorization to award was given at the July 24, 2017 Board meeting. A pre-construction meeting was held in September. Construction started in October 2017 and will be completed in the first quarter of 2018. **(No Change)**.

10. **Suburban Division – Well Abandonments**

The project consists of the abandonment of six wells that are no longer used due to water quality issues: WL4, WL7, NL7, NL8, NL9, and NL10. Authorization to award a professional services

agreement to ARRO Consulting Engineers was given at the July 24, 2017 Board meeting. Construction began in September 2017 and will be completed in early 2018 **(No Change)**.

**11. Suburban Division – 2017 Water Meter Replacement Project**

The project consists of the replacement of approximately 2000 residential meters and 430 commercial meters as well as replacing “non-read” meters with new transceiver units. 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. The project was approved at the September 25, 2017 Board meeting. The Notice to Proceed was issued in November. Replacement of meters began the second week of January 2018.

**12. Suburban Division – Buss Acres Pump Station Replacement**

The project consists of the consolidation and replacement of two well stations with a single new pump station and a new water storage tank to replace two antiquated hydropneumatic pump stations. The new station will be a variable frequency drive controlled double pumping system with full SCADA control. The design will accommodate the future addition of radon removal equipment to be implemented upon DEP’s mandate of a regulatory limit. Design phase was authorized at the 8/28/17 board meeting, and the project is anticipated to be ready for bidding in Spring 2018. **(No Change)**

**13. Suburban Division – Watershed Monitoring Program**

The project will include setting up a surface water flow monitoring network for the Little Lehigh Creek. The work is in response to the Watershed Monitoring Plan that was developed and reported to LCA by Al Guiseppe (SSM, Inc.) in February 2017. An RFP is nearing completion for vendors to supply flow-monitoring and data transmission equipment to be used at six (6) local bridges. The RFP is to be released in early February. Flow monitoring in 2018 will focus on the Little Lehigh Creek only. In 2019, LCA plans to consider developing new monitoring wells since we have had very little success in finding any existing wells that are no longer used. SSM will assist LCA in calibrating surface flows under the bridges based on the recorded stream elevations. Mandatory equipment will be purchased and installed ASAP after the proposals are received so the monitoring program can begin.

**14. Suburban Division – Green Acres MHP Interconnection**

This is a developer-initiated project to interconnect the Green Acres Mobile Home Park water system in Upper Macungie Township with the LCA Central Lehigh Division. LCA responsibility would end at the meter pit. The owner would continue to own the mobile home park’s pump station and internal distribution system and maintain them. Construction can begin after a water service agreement that the owner is currently reviewing has been signed. Permitting approvals have been received from DEP and the township (road opening permit).

## WASTEWATER

### ACTION ITEMS

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1. **Suburban Division – Park Pump Station Upgrade Design – February 12, 2018**

The Park Pump Station is to be upgraded to address station capacity and age/condition issues, and prolong the service life of this critical facility. Design was completed in December 2017. The Park Pump Station Upgrade was advertised for bid in December, pre-bid meeting was held on 1/4/18, and bids were opened 2/1/18. Award of bid is to be requested at the 2/12/18 Board meeting.

2. **Suburban Division – Chestnut Street Bridge Replacement – February 12, 2018**

The Chestnut Street railroad bridge in Upper Milford Township is being replaced by Norfolk Southern Railroad and PennDOT is re-aligning Chestnut Street for the approach to the new bridge. LCA sewer facilities need to be relocated due to the road re-alignment and proposed grading. LCA is incorporating this work with PennDOT's overall construction project. LCA seeks approval for relocation design services of our sewer facilities at the February 12, 2018 Board meeting.

### DISCUSSION ITEMS

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### INFORMATION ITEMS

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1. **Allentown Division – Wastewater Treatment Plant: Digester Cover Replacements**

This project involves the cover replacement of both the Primary Digester No. 1 and the Secondary Digester (the cover for Primary Digester No. 2 was previously replaced in 2010). A Major Capital Improvement (MCI) Conceptual Design has been approved by the City. Board approval of the construction phase was received at the 2/8/16 Board Meeting. The new Secondary Digester cover was installed in late October 2016 and its construction was completed in late February of 2017. The new Primary No. 1 Digester Cover is also installed and is now operational. Project closeout is underway. This Project is identified in the Lease as a Schedule 7 (required) project and was funded by the LCA Allentown Division. **(No Change)**

2. **Allentown Division – Wastewater Treatment Plant: WWTP Security Upgrades**

This project involves the installation of security related equipment upgrades at the Kline's Island Wastewater Treatment Plant (WWTP). Enhanced security will further reduce the risk of breaches that may impair the operation of the facility. Board Approval of the CoStars Agreement with Tyco (to purchase the security cameras, doors, etc. upfront) was granted at the January 23, 2017 Board Meeting. Approval of the electrical contractor to install the security equipment was granted at the May 22, 2017 Board Meeting. Construction of the project began in late July of 2017 and was completed in late-December. Project closeout is underway. This Project is identified as an Uncompleted Work (UW) in the Lease Agreement and will be funded by the City of Allentown. **(No Change)**

3. **Allentown Division – Wastewater Treatment Plant: Electrical Substation Replacements**

This project involves the replacement of the existing 12.4 kV Switchgear and existing Substation No. 1 and No. 2. The equipment was installed in 1977 and has reached the end of its useful life. The City has reviewed this and has approved this project as a Major Capital Project. Approval of the design engineer was granted at the May 8, 2017 Board Meeting. Approval of the construction contract is tentatively scheduled to be requested at the April 23, 2018 Board Meeting. Construction of the project is expected to begin in June of 2018 and be completed by mid-2019. This Major Capital Project will be funded by the LCA Allentown Division.

4. **Allentown Division – Wastewater Treatment Plant: Miscellaneous Improvements**

In December 2016, the drive unit on Final Clarifier #5 at Kline's Island WWTP experienced a complete failure. The drive was the original unit that was installed during construction of the clarifier in 1968. An emergency declaration was declared to reduce the installation time by several weeks. A request for a retroactive emergency declaration was requested and approved at the January 9, 2017 Board meeting. The drive was installed in April 2017 and is now fully operational. The remaining mechanisms of Final Clarifier #5, and the drive unit and similar mechanisms of Final Clarifier #6 have also reached the end of their useful life and will be replaced in early 2018. Construction approval was granted at the August 28, 2017 Board meeting. Construction should be completed by 2Q 2018. This capital project will be funded by the LCA Allentown Division. **(No Change)**

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

This project includes the design of the AO improvements at the wastewater treatment plant. This conceptual design concept was approved by the City and the relevant final deliverables were received by LCA. The City then directed LCA to proceed with the final design of improvements related to the blending alternative. Board approval for the Professional Services Authorization with Kleinfelder East, Inc. was granted at the September 11, 2017 Board Meeting. The project is identified as Administrative Order Work and will be funded by the City. Construction is expected to begin in early 2019 and is expected to be complete in early 2021, subject to regulatory review and approval. **(No Change)**

6. **Allentown Division – Kline's Island WWTP: Primary No. 2 Digester Cleaning and Miscellaneous Improvements**

This project includes the cleaning of the Primary No. 2 Digester and other miscellaneous improvements (additional scumbuster and control panel, minor pipe replacement, etc.) at the wastewater treatment plant. Construction documents are expected to be bid ready in early February, with the cleaning of Primary No. 2 Digester beginning by early April. Construction approval is expected at the March 12, 2018 Board Meeting. This capital project will be funded by the LCA Allentown Division.

7. **Allentown Division – Kline's Island WWTP Master Plan**

This project involves development of a Master Plan that is required as part of the lease with the City of Allentown. The Master Plan is similar in scope to what was done previously for the Allentown Water System in 2017, and this project will include Condition Assessments, Process Optimizations, and both short-term and long-term Capital Plans. The city lease requirements dictate that the Master Plans must be updated every 5 years for the duration of the lease, and 2018 is the first year that a Master Plan is to be prepared. A Request for Proposal (RFP) was released to five (5) previously qualified firms on 12/15/2017 and the proposal due date is January 26, 2018. Award of the contract is planned for Q1 2018 and the project will run through the majority of 2018.

8. **Suburban Division – Test & Seal Project, Western Lehigh Interceptor Service Area**

Project consists of sanitary sewer cleaning, inspections via CCTV, cured-in-place point repairs, pressure testing and chemical grout sealing of joints, and post construction inspection for sanitary sewer lines located in western and central Lehigh County previously identified as areas subject to leakage. This project is part of the SCARP program. Construction began in August 2016 and is expected to finish by the end of Summer 2017; additional scope work is being completed by the early 2018. **(No Change)**

9. **Suburban Division – Lynn Township WWTP Improvements, Phases 1 & 2**

This project will upgrade the wastewater treatment plant (WWTP) headworks to install a mechanical fine screen, in order to protect the influent pumps and mitigate rag buildup. The project is funded by the Lynn Township Suburban Division. The contractor has installed the

meter vault. The mechanical screen was also installed and a successful startup performed. The chemical feed line must still be installed along with some minor plumbing and electrical work (**No Change**).

**10. Suburban Division – SCARP**

All respondents to the USEPA Administrative Order (AO) received a letter from EPA in December 2017 indicating that an extension has been granted for submission of an Implementation Plan, which had been due for submittal on December 31, 2017. EPA requested a meeting with the respondents to discuss the path forward, requesting the Respondents develop a regional flow management program. EPA has indicated that the following critical elements should be included in the program: collection system operation and maintenance plan, system characterization, source removal, flow modeling, and flow targets. The meeting is currently being scheduled, tentatively in March 2018. A pre-meeting was held with the City of Allentown and other municipal signatories to discuss the EPA direction for addressing the AO. Paul Calamita from AquaLaw represented the Western Lehigh Sewerage Partners at the meeting, and he suggested that all Respondents work together to address EPA's requested critical elements, and submit a regional plan. Due to the legal enforcement nature of the AO, all Respondents are encouraged to participate in the meeting with EPA with legal counsel present.

**11. Suburban Division – Spring Creek Pump Station**

This project involves the following upgrades to the existing pumping station: Install a comminutor to reduce buildup of debris on the bar screens, replace the manually operated weir gates with new motorized weir gates, and upgrades to the SCADA system. Design of the project is complete. The Notice to Proceed was issued on December 12, 2017. Construction will begin in early 2018 (**No Change**).

**12. Suburban Division – Heidelberg Heights Sanitary Sewer Rehabilitation**

This project involves replacement of approximately 1000 feet of 8-inch sewer main and 60 sewer laterals in the Heidelberg Heights sanitary sewer system. Recent internal CCTV inspection of the system revealed numerous pipe breaks, root intrusions, and other defects that has resulted in excessive infiltration of groundwater, particularly during storm events. The targeted sewer lines appear to be in the worst condition, and have the highest priority for replacement. This project is part on an on-going effort to reduce hydraulic overloads at the Heidelberg Heights wastewater treatment plant. The project will be advertised for bid in January 2018 with bid opening in February 2018 (**No Change**).

**13. Suburban Division – Park Pump Station Force Main Rehabilitation**

The Park Pump Station and Force Main were constructed in 1980 to provide wet weather relief to the Little Lehigh Creek Interceptor, which conveys wastewater from ten municipalities from outlying areas to the Kline's Island Wastewater Treatment Plant (KIWWTP). The force main consists of 8,715 linear feet of prestressed concrete cylinder pipe (PCCP) of various sizes (2,615' of 24"; 2,695' of 30"; and 3,405' of 36"), and connects with the 54" sanitary sewer interceptor that runs to KIWWTP. PCCP is particularly sensitive to deterioration due to hydrogen sulfide gas from wastewater, and corrosion of exposed reinforcing steel can result in structural degradation and pipe failure. An investigation of the pipe is required to determine the locations and extent of rehabilitation needed to restore the level of service, prolong service life and mitigate the risk of failure. Capital Works is currently evaluating technologies and methods of internal force main pipe investigation that require minimal interruption of operation of the pump station and force main.



# LEHIGH COUNTY AUTHORITY

FINANCIAL REPORT – DECEMBER 2017



## SUMMARY

MONTH			YEAR-TO-DATE			
Actual	Forecast	FC Var	DECEMBER 2017	Actual	Budget	Bud Var
			<b>Income Statement</b>			
43,317	(73,146)	116,463	Suburban Water	127,169	(34,675)	161,844
(1,229,256)	(210,512)	(1,018,744)	Suburban Wastewater	(1,540,726)	(237,976)	(1,302,750)
(3,495,498)	(3,363,788)	(131,710)	City Division	(7,784,115)	(10,217,568)	2,433,453
(4,681,437)	(3,647,446)	(1,033,991)	Total LCA	(9,197,672)	(10,490,219)	1,292,547
			<b>Cash Flow Statement (Indirect)</b>			
(1,697,356)	343,301	(2,040,657)	Suburban Water	11,302,163	(81,471)	11,383,634
(1,480,268)	(632,599)	(847,669)	Suburban Wastewater	(789,035)	7,121,676	(7,910,711)
(7,297,031)	(6,881,521)	(415,510)	City Division	(2,978,874)	(4,479,360)	1,500,486
(10,474,655)	(7,170,819)	(3,303,836)	Total LCA	7,534,254	2,560,845	4,973,409
			<b>Cash Flow Statement (Adjusted)</b>			
(1,697,356)	343,301	(2,040,657)	Suburban Water	(3,989,843)	(5,981,471)	1,991,628
(1,480,268)	(632,599)	(847,669)	Suburban Wastewater	(789,035)	(3,753,324)	2,964,289
(7,297,031)	(6,881,521)	(415,510)	City Division	(2,978,874)	(4,479,360)	1,500,486
(10,474,655)	(7,170,819)	(3,303,836)	Total LCA	(7,757,752)	(14,214,155)	6,456,403
			<b>Debt Service Coverage Ratio</b>			
0.91	1.22	(0.31)	Suburban Water	1.35	1.27	0.09
(15.48)	3.15	(18.64)	Suburban Wastewater	4.65	2.45	2.21
1.38	1.08	0.29	City Division	1.34	1.21	0.13

### NET INCOME

#### Month

Suburban Water had a positive net income while Suburban Wastewater and City Division had losses for the month. Suburban Water finished favorable to forecast while Suburban Wastewater and City Division both finished unfavorable.

#### Year-to-Date

Suburban water is the lone fund with a positive net income for the year while Suburban Wastewater and City Division had net losses. Suburban Water and City Division net income was favorable to budget while Suburban Wastewater was unfavorable.

### CASH FLOWS

#### Month

All three funds had negative cash flows for the month and all three funds were unfavorable to forecast.

#### Year-to-Date

Suburban Water had a positive cash flow for the year aided by \$15.2m of borrowing. Adjusting for that, Suburban Water would have negative cash flow. Suburban Wastewater and City Division had negative cash flows for the year as well. However, adjusted for borrowing, all three funds were favorable to budget.

### DEBT SERVICE COVERAGE RATIO

#### Year-to-Date

All three funds are above target and better than budget.

## SUBURBAN WATER

MONTH			DECEMBER 2017	YEAR-TO-DATE		
Actual	Forecast	FC Var	Income Statement	Actual	Budget	Bud Var
778,496	711,758	66,738	Operating Revenues	8,993,917	9,134,000	(140,083)
(878,066)	(741,509)	(136,557)	Operating (Expenses)	(8,345,237)	(8,814,414)	469,177
(99,570)	(29,751)	(69,819)	Operating Income	648,680	319,586	329,094
95,259	35,477	59,782	Non-Operating Revenues (Expenses)	744,873	794,000	(49,127)
(4,311)	5,726	(10,037)	Income Before Interest	1,393,553	1,113,586	279,967
68,922	7,128	61,794	Interest Income	147,694	200,000	(52,306)
(21,295)	(86,000)	64,705	Interest Expense	(1,414,078)	(1,348,261)	(65,817)
-	-	-	Capital Contributions	-	-	-
<b>43,317</b>	<b>(73,146)</b>	<b>116,463</b>	<b>NET INCOME</b>	<b>127,169</b>	<b>(34,675)</b>	<b>161,844</b>

MONTH			DECEMBER 2017	YEAR-TO-DATE		
Actual	Forecast	FC Var	Cash Flow Statement (Indirect)	Actual	Budget	Bud Var
43,317	(73,146)	116,463	Net Income	127,169	(34,675)	161,844
230,905	265,000	(34,095)	Add: Depreciation & Amortization	2,964,386	2,950,000	14,386
(239,416)	(1,000)	(238,416)	Add: Non-Cash Interest Expense	(345,192)	-	(345,192)
141	561	(420)	Add: Capex Charged to Expense	6,099	100,000	(93,901)
(5,790)	(139,000)	133,210	Principal Payments	(1,503,753)	(1,833,796)	330,043
-	1,159,937	(1,159,937)	Investments Converting To Cash	-	284,000	(284,000)
-	-	-	New Borrowing	15,292,006	5,900,000	9,392,006
(1,726,513)	(869,051)	(857,462)	Capital Expenditures	(5,238,552)	(7,447,000)	2,208,448
<b>(1,697,356)</b>	<b>343,301</b>	<b>(2,040,657)</b>	<b>NET FUND CASH FLOWS</b>	<b>11,302,163</b>	<b>(81,471)</b>	<b>11,383,634</b>

### NET INCOME

#### Month

Net income for the month was positive and was better than forecast. Operating income was down to forecast due to higher operating expenses with a slight offset from higher operating revenues. The shortfall in operating income was more than made up by higher non-operating revenues along with higher interest income and lower interest expense. The favorable variance in operating revenues was driven by higher residential and higher fire service revenues. The unfavorable variance in operating expenses was due to higher water purchases. Non-operating revenues was favorably impacted by higher project reimbursement revenues.

#### Year-to-Date

Net income for the year is positive and favorable to budget. This was due to higher operating income offset partly by lower non-operating revenues, lower interest income, and higher interest expenses. Operating income was favorable to budget as slightly lower operating revenues were more than offset by significantly lower operating expenses. Operating expenses were favorably impacted by lower spending on maintenance services along with lower equipment purchases. The unfavorable variance on non-operating revenues was due to lower inspection and review revenues along with lower project reimbursement revenues.

### CASH FLOWS

#### Month

Cash flows for the month were negative and unfavorable to forecast as we held onto invested balances along with higher capex.

#### Year-to-Date

Borrowing \$15.2m aided cash flows for the year and this finished favorable to budget. Adjusting for borrowing, cash flows for the year were still favorable to budget. This was due, mostly, to lower capex.

## SUBURBAN WASTEWATER

MONTH			DECEMBER 2017	YEAR-TO-DATE		
Actual	Forecast	FC Var	Income Statement	Actual	Budget	Bud Var
346,670	1,449,000	(1,102,330)	Operating Revenues	15,931,403	18,259,000	(2,327,597)
(1,319,198)	(1,732,282)	413,084	Operating (Expenses)	(18,083,736)	(18,557,348)	473,612
(972,528)	(283,282)	(689,246)	Operating Income	(2,152,333)	(298,348)	(1,853,985)
(239,569)	90,362	(329,931)	Non-Operating Revenues (Expenses)	821,204	793,000	28,204
(1,212,098)	(192,920)	(1,019,178)	Income Before Interest Expense	(1,331,129)	494,652	(1,825,781)
302	300	2	Interest Income	4,136	119,000	(114,864)
(17,460)	(17,892)	432	Interest Expense	(213,733)	(851,628)	637,895
-	-	-	Capital Contributions	-	-	-
<u>(1,229,256)</u>	<u>(210,512)</u>	<u>(1,018,744)</u>	<b>NET INCOME</b>	<u>(1,540,726)</u>	<u>(237,976)</u>	<u>(1,302,750)</u>

MONTH			DECEMBER 2017	YEAR-TO-DATE		
Actual	Forecast	FC Var	Cash Flow Statement (Indirect)	Actual	Budget	Bud Var
(1,229,256)	(210,512)	(1,018,744)	Net Income	(1,540,726)	(237,976)	(1,302,750)
364,694	364,694	-	Add: Depreciation & Amortization	4,376,328	3,925,000	451,328
2,699	2,796	(97)	Add: Non-Cash Interest Expense	33,319	-	33,319
110	300	(190)	Add: Capex Charged to Expense	1,080	300,000	(298,920)
(39,940)	(39,577)	(363)	Principal Payments	(475,582)	(1,127,348)	651,766
-	-	-	Investments Converting To Cash	-	-	-
-	-	-	New Borrowing	-	10,875,000	(10,875,000)
<u>(578,576)</u>	<u>(750,300)</u>	<u>171,724</u>	Capital Expenditures	<u>(3,183,454)</u>	<u>(6,613,000)</u>	<u>3,429,546</u>
<u>(1,480,268)</u>	<u>(632,599)</u>	<u>(847,669)</u>	<b>NET FUND CASH FLOWS</b>	<u>(789,035)</u>	<u>7,121,676</u>	<u>(7,910,711)</u>

### NET INCOME

#### Month

Net income was negative and unfavorable to forecast. This was due to lower operating income along with lower non-operating revenues. The shortfall in operating income was due to lower operating revenues with some help from lower operating expenses to partially offset. The revenues shortfall was due to lower signatory revenues from credits applied and lower industrial revenues. The operating expenses were favorable due to lower treatment & transportation expenses.

#### Year-to-Date

Net income for the year was also negative and unfavorable to budget. The unfavorable variance to budget is a result of lower operating income helped partially by favorable net interest. The operating income was negatively impacted by lower operating revenues although operating expenses were favorable to partially offset. Operating revenues were unfavorable against the signatories and in the wastewater treatment plant for hauler fees and industrial charges. The operating expenses were favorable due to lower spending on maintenance services, lower contract operator costs, and lower equipment spending with a partial offset from higher treatment & transportation costs. Non-operating revenues were only slightly favorable to budget due to lower expensed capex that more than offset lower tapping fees and lower inspection and planning review fees. Interest income was lower than budget as we used up invested balances. Interest expense was favorable as we did not borrow for this fund as originally budgeted.

### CASH FLOWS

#### Month

Cash flow for the month was negative and unfavorable to forecast. This was primarily due to lower cash from operations along with higher capex.

#### Year-to-Date

Cash flow for the year was negative and unfavorable to budget. We did not borrow \$10.9m as budgeted so that is most of the variance. We did make up some of that shortfall with higher cash from operations and lower capex.

## CITY DIVISION

MONTH			DECEMBER 2017	YEAR-TO-DATE		
Actual	Forecast	FC Var	Income Statement	Actual	Budget	Bud Var
3,022,606	2,641,524	381,082	Operating Revenues	33,849,636	31,809,000	2,040,636
<u>(2,012,530)</u>	<u>(1,971,260)</u>	<u>(41,270)</u>	Operating (Expenses)	<u>(22,320,900)</u>	<u>(22,462,068)</u>	<u>141,168</u>
1,010,076	670,264	339,812	Operating Income	11,528,737	9,346,932	2,181,805
<u>(2,011,358)</u>	<u>(1,515,556)</u>	<u>(495,802)</u>	Non-Operating Revenues (Expenses)	<u>(3,398,228)</u>	<u>(3,406,000)</u>	<u>7,772</u>
(1,001,282)	(845,292)	(155,990)	Income Before Interest Expense	8,130,508	5,940,932	2,189,576
68,727	44,445	24,282	Interest Income	540,671	302,000	238,671
<u>(2,562,943)</u>	<u>(2,562,941)</u>	<u>(2)</u>	Interest Expense	<u>(16,455,294)</u>	<u>(16,460,500)</u>	<u>5,206</u>
-	-	-	Capital Contributions	-	-	-
<u><b>(3,495,498)</b></u>	<u><b>(3,363,788)</b></u>	<u><b>(131,710)</b></u>	<b>NET INCOME</b>	<u><b>(7,784,115)</b></u>	<u><b>(10,217,568)</b></u>	<u><b>2,433,453</b></u>
MONTH			DECEMBER 2017	YEAR-TO-DATE		
Actual	Forecast	FC Var	Cash Flow Statement (Indirect)	Actual	Budget	Bud Var
(3,495,498)	(3,363,788)	(131,710)	Net Income	(7,784,115)	(10,217,568)	2,433,453
450,000	450,000	-	Add: Depreciation & Amortization	5,400,000	5,600,000	(200,000)
(3,960,918)	(3,960,920)	2	Add: Non-Cash Interest Expense	3,407,572	3,412,778	(5,206)
2,014,941	1,710,885	304,056	Add: Capex Charged to Expense	4,407,857	7,904,000	(3,496,143)
-	-	-	Principal Payments	-	-	-
-	-	-	Cash Outlays on Lease & Lease Reserve	(508,000)	(508,000)	-
-	-	-	Investments Converting To Cash	-	-	-
-	-	-	New Borrowing	-	-	-
<u>(2,305,556)</u>	<u>(1,717,698)</u>	<u>(587,858)</u>	Capital Expenditures	<u>(7,902,188)</u>	<u>(10,670,570)</u>	<u>2,768,382</u>
<u><b>(7,297,031)</b></u>	<u><b>(6,881,521)</b></u>	<u><b>(415,510)</b></u>	<b>NET FUND CASH FLOWS</b>	<u><b>(2,978,874)</b></u>	<u><b>(4,479,360)</b></u>	<u><b>1,500,486</b></u>

### NET INCOME

#### Month

Net income for the month was negative and unfavorable to forecast. The variance to forecast is due, mainly to higher operating income being partially offset by lower non-operating revenues. The operating income was favorable due to higher operating revenues from both water and wastewater. The unfavorable non-operating revenue variance is due to lower project reimbursement.

#### Year-to-Date

Net income for the year was negative but favorable to budget. The favorable variance to budget is a combination of favorable variances for operating revenues, operating expenses, non-operating revenues, interest income, and interest expense across the board. Operating revenues were favorable as both water revenues and wastewater revenues were higher than budget.

### CASH FLOWS

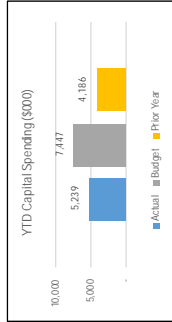
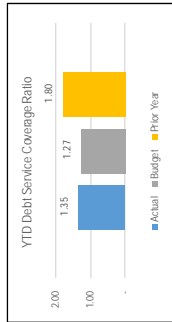
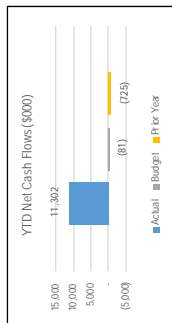
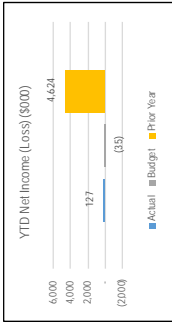
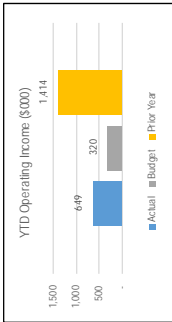
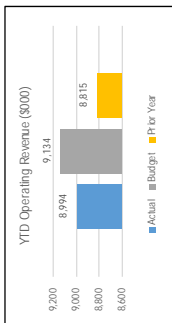
#### Month

Cash flow for the month was negative and was unfavorable to forecast. This was due to lower cash generated by operations and higher capex.

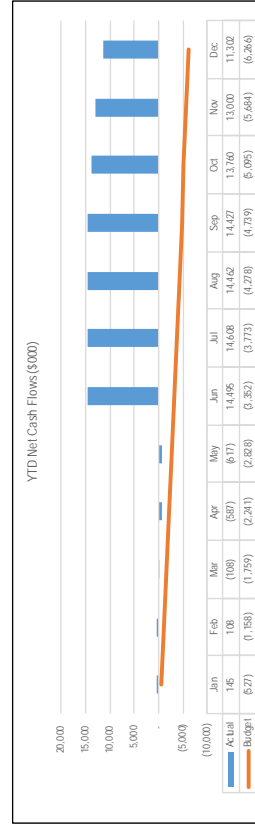
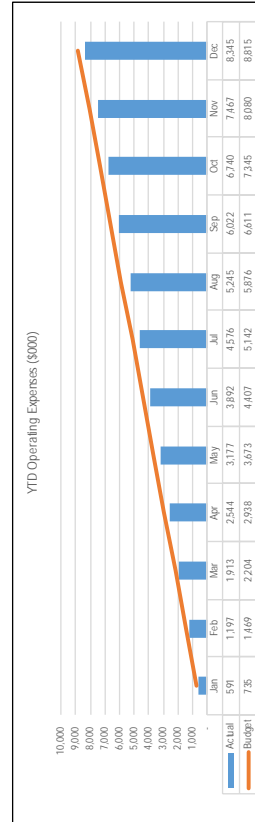
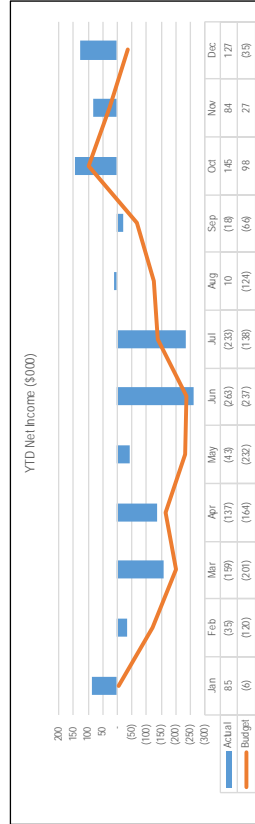
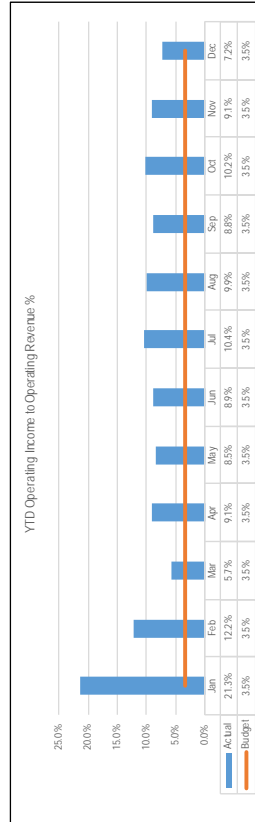
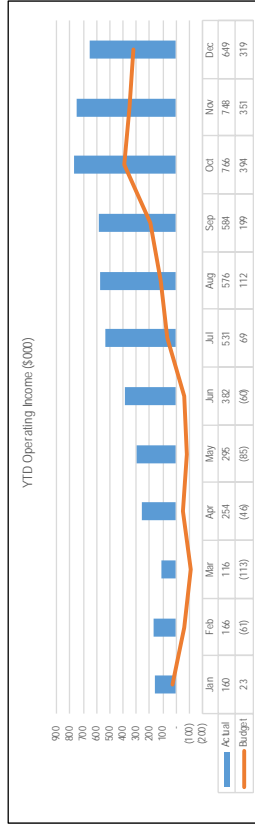
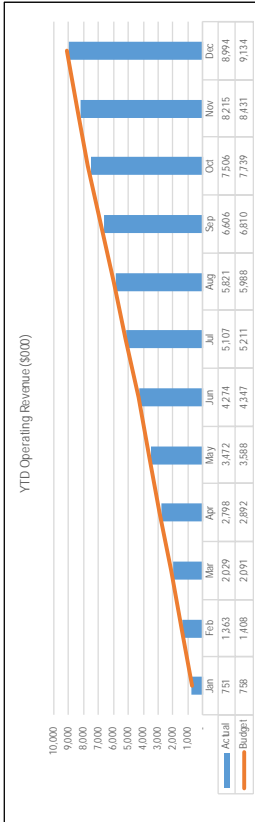
#### Year-to-Date

Cash flow for the year was negative but favorable to budget. This is due to higher cash generated by operations and lower capex.

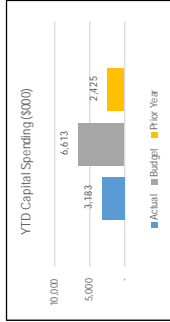
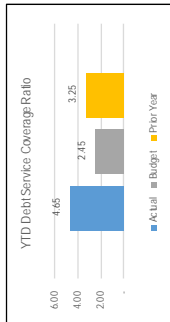
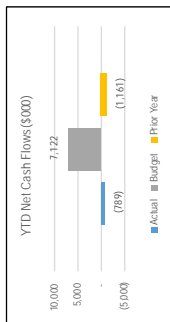
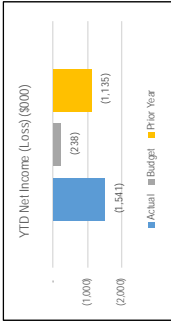
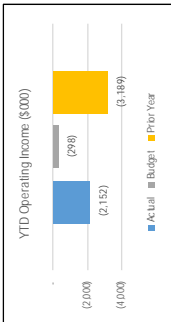
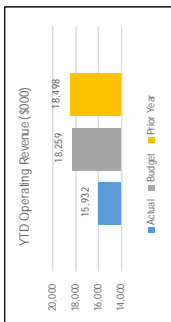
**DASHBOARD - SUBURBAN WATER  
DECEMBER 2017**



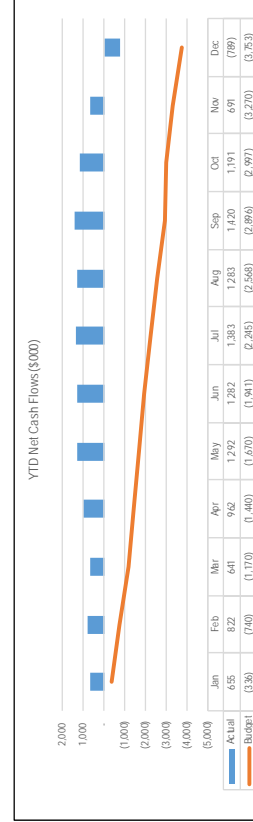
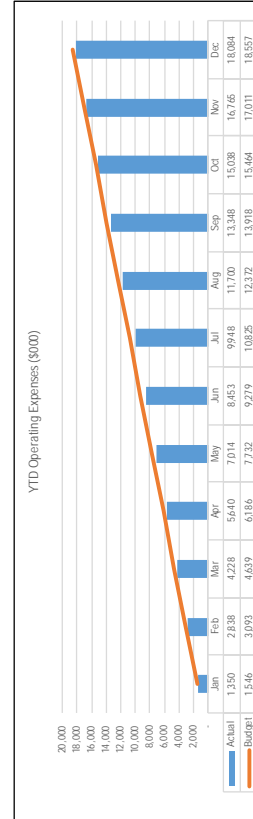
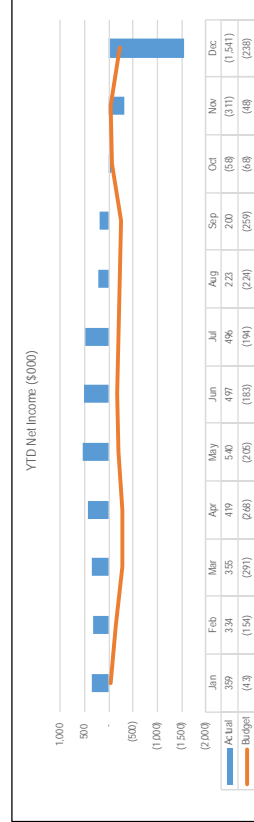
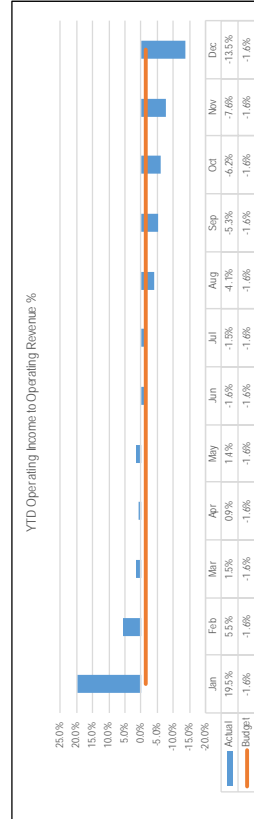
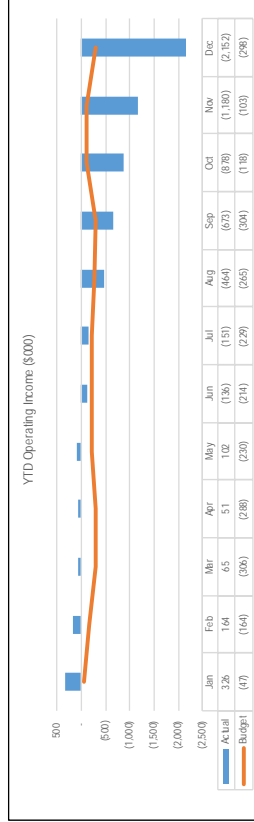
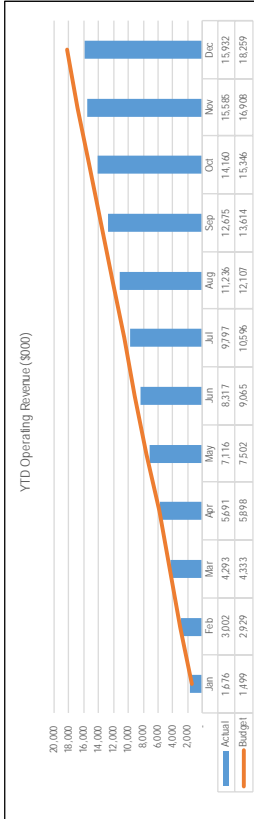
	Actual	Budget	Prior Yr	Variance to Budget	Prior Yr
<b>YTD COMPARATIVE (\$000)</b>					
Operating Revenues	8,994	9,134	8,815	(140)	179
Less Operating Expenses	8,345	8,814	7,401	469	(944)
<b>Operating Income</b>	649	320	1,414	329	(765)
<b>Other income (expenses)</b>	(522)	(355)	3,210	(167)	(3,732)
<b>Net Income</b>	127	(35)	4,624	162	(4,497)
<b>Debt Service Coverage Ratio</b>	1.35	1.27	1.80	0.08	(0.45)
<b>Net Cash Flows</b>	11,302	(81)	(725)	11,383	12,027



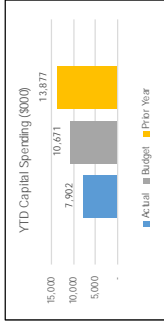
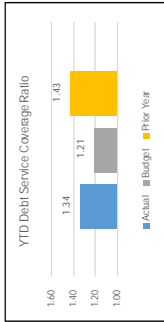
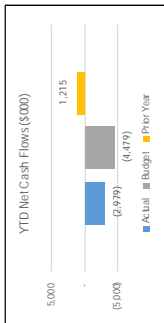
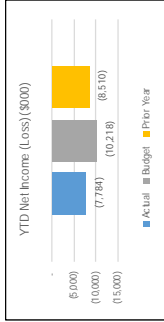
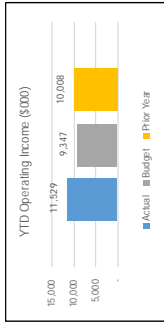
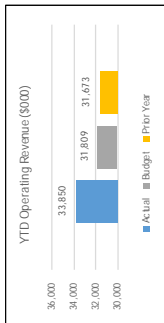
**DASHBOARD - SUBURBAN WASTEWATER  
DECEMBER 2017**



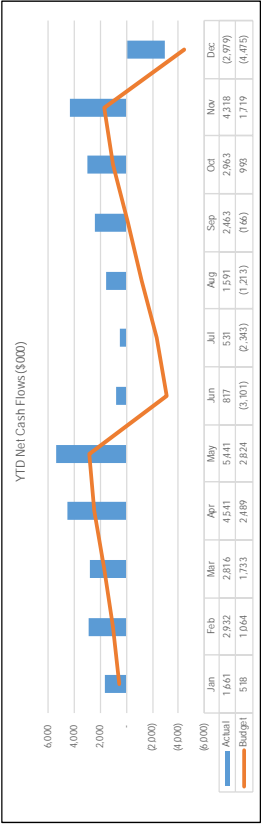
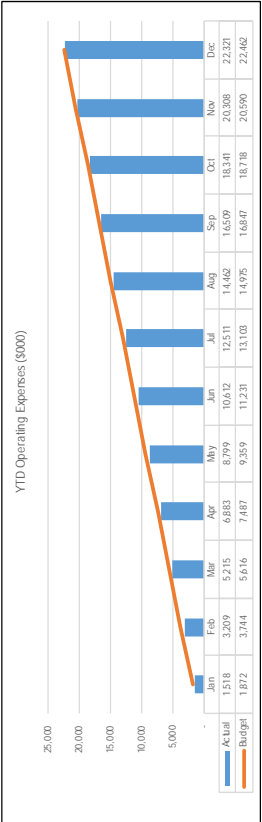
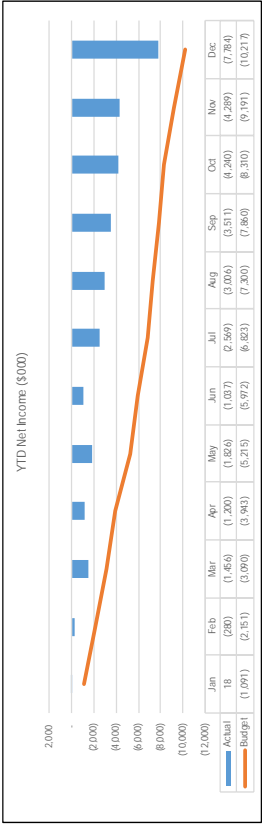
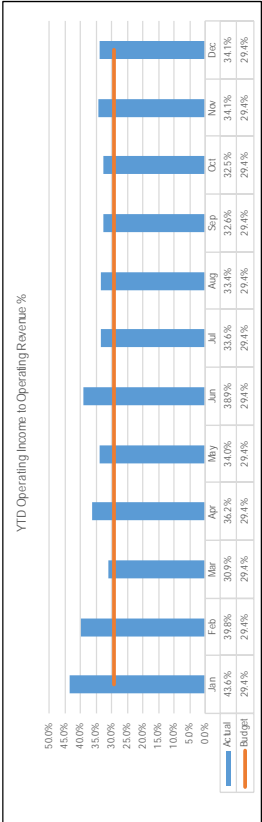
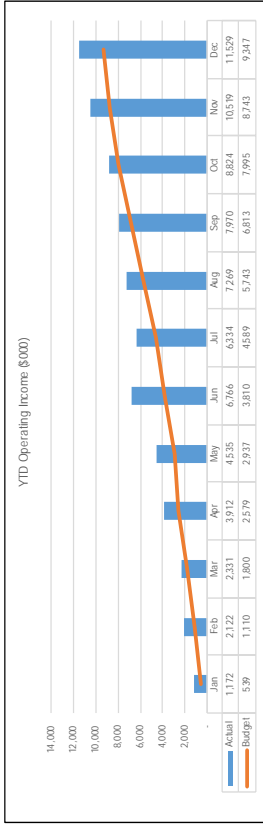
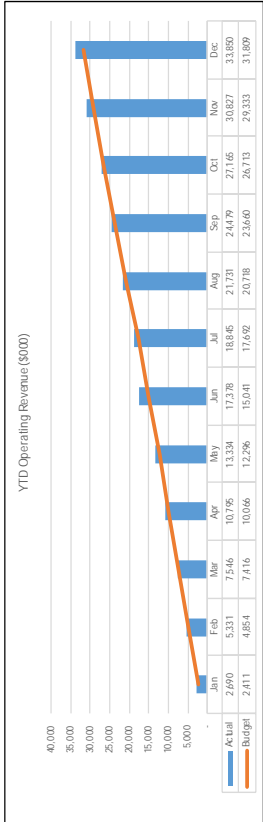
	Actual	Budget	Pt Yr	Variance to Budget	Pt Yr	Variance to
Operating Revenues	15,932	18,259	18,498	(2,327)	(2,566)	
Less: Operating Expenses	18,084	18,557	21,687	473	3,603	
Operating Income	(2,152)	(98)	(3,189)	(1,854)	1,037	
Other Income (Expenses)	611	60	2,054	551	(1,443)	
Net Income	(1,541)	(238)	(1,135)	(1,303)	(406)	
Debt Service Coverage	4.65	2.45	3.25	2.20	1.40	
Net Cash Flows	(789)	7,122	(1,161)	(7,911)	372	



**DASHBOARD - CITY DIVISION  
DECEMBER 2017**



	Actual	Budget	PY	Variance to Budget	PY
Operating Revenues	33,850	31,809	31,673	2,041	2,177
Less: Operating Expenses	22,321	22,462	21,665	141	(656)
Operating Income	11,529	9,347	10,008	2,182	1,521
Other Income (expenses)	(19,313)	(19,565)	(18,518)	252	(795)
<b>Net Income</b>	<b>(7,784)</b>	<b>(10,218)</b>	<b>(8,510)</b>	<b>2,434</b>	<b>726</b>
Debt Service Coverage	1.34	1.21	1.43	0.13	(0.09)
<b>Net Cash Flows</b>	<b>(2,979)</b>	<b>(4,479)</b>	<b>1,215</b>	<b>1,500</b>	<b>(4,194)</b>



LEHIGH COUNTY AUTHORITY						
MONTHLY FINANCIAL STATEMENTS - SUBURBAN WATER						
DECEMBER 2017						
MONTH			DECEMBER 2017	YEAR-TO-DATE		
Actual	Forecast	FC Var	Cash Flow Statement (Direct)	Actual	Budget	Bud Var
778,496	711,758	66,738	Operating Revenues	8,993,917	9,134,000	(140,083)
(647,161)	(476,509)	(170,652)	Operating Expenses (Ex Depreciation)	(5,380,851)	(5,864,414)	483,563
68,922	7,128	61,794	Interest Income	147,694	200,000	(52,306)
200,257	242,377	(42,120)	Cash Available For Debt Service	3,760,760	3,469,586	291,174
(260,710)	(87,000)	(173,710)	Interest Payments	(1,759,270)	(1,348,261)	(411,009)
(5,790)	(139,000)	133,210	Principal Payments	(1,503,753)	(1,833,796)	330,043
(66,243)	16,377	(82,620)	Net Cash Available After Debt Service	497,738	287,529	210,209
95,259	35,477	59,782	Non-Operating Revenues (Expenses)	744,873	794,000	(49,127)
141	561	(420)	Add: Capex Charged to Expense	6,099	100,000	(93,901)
(52,478)	(2,000)	(50,478)	Less: Project Reimbursement	(97,774)	(334,000)	236,226
-	-	-	Non-Cash Working Capital Changes	-	-	-
(23,321)	50,415	(73,736)	Net Cash Available For Capital	1,150,936	847,529	303,407
52,478	2,000	50,478	Project Reimbursement	97,774	334,000	(236,226)
-	-	-	Capital Contributions	-	-	-
-	1,159,937	(1,159,937)	Investments Converting To Cash	-	284,000	(284,000)
-	-	-	New Borrowing	15,292,006	5,900,000	9,392,006
(1,726,513)	(869,051)	(857,462)	Capital Expenditures	(5,238,552)	(7,447,000)	2,208,448
<u>(1,697,356)</u>	<u>343,301</u>	<u>(2,040,657)</u>	<b>NET FUND CASH FLOWS</b>	<u>11,302,163</u>	<u>(81,471)</u>	<u>11,383,634</u>
<b>DEBT SERVICE COVERAGE RATIO</b>						
243,179	276,415		Total Cash Available For Debt Service	4,413,958	4,029,586	
266,500	226,000		Debt Service	3,263,022	3,182,057	
<u>0.91</u>	<u>1.22</u>		<b>DSCR</b>	<u>1.35</u>	<u>1.27</u>	



LEHIGH COUNTY AUTHORITY						
MONTHLY FINANCIAL STATEMENTS - SUBURBAN WASTEWATER						
DECEMBER 2017						
MONTH			DECEMBER 2017	YEAR-TO-DATE		
Actual	Forecast	FC Var	Cash Flow Statement (Direct)	Actual	Budget	Bud Var
346,670	1,449,000	(1,102,330)	Operating Revenues	15,931,403	18,259,000	(2,327,597)
(954,504)	(1,367,588)	413,084	Operating Expenses (Ex Depreciation)	(13,707,408)	(14,632,348)	924,940
302	300	2	Interest Income	4,136	119,000	(114,864)
(607,532)	81,712	(689,244)	Cash Available For Debt Service	2,228,132	3,745,652	(1,517,520)
(14,761)	(15,096)	335	Interest Payments	(180,415)	(851,628)	671,213
(39,940)	(39,577)	(363)	Principal Payments	(475,582)	(1,127,348)	651,766
(662,233)	27,039	(689,272)	Net Cash Available After Debt Service	1,572,135	1,766,676	(194,541)
(239,569)	90,362	(329,931)	Non-Operating Revenues (Expenses)	821,204	793,000	28,204
110	300	(190)	Add: Capex Charged to Expense	1,080	300,000	(298,920)
-	-	-	Less: Project Reimbursement	-	-	-
-	-	-	Non-Cash Working Capital Changes	-	-	-
(901,692)	117,701	(1,019,393)	Net Cash Available For Capital	2,394,419	2,859,676	(465,257)
-	-	-	Project Reimbursement	-	-	-
-	-	-	Capital Contributions	-	-	-
-	-	-	Investments Converting To Cash	-	-	-
-	-	-	New Borrowing	-	10,875,000	(10,875,000)
(578,576)	(750,300)	171,724	Capital Expenditures	(3,183,454)	(6,613,000)	3,429,546
<u>(1,480,268)</u>	<u>(632,599)</u>	<u>(847,669)</u>	<b>NET FUND CASH FLOWS</b>	<u>(789,035)</u>	<u>7,121,676</u>	<u>(7,910,711)</u>
			<b>DEBT SERVICE COVERAGE RATIO</b>			
(846,992)	172,374		Total Cash Available For Debt Service	3,050,415	4,838,652	
54,700	54,673		Debt Service	655,996	1,978,976	
<u>(15.48)</u>	<u>3.15</u>		<b>DSCR</b>	<u>4.65</u>	<u>2.45</u>	

LEHIGH COUNTY AUTHORITY						
MONTHLY FINANCIAL STATEMENTS - CITY DIVISION						
DECEMBER 2017						
MONTH			DECEMBER 2017	YEAR-TO-DATE		
Actual	Forecast	FC Var	Cash Flow Statement (Direct)	Actual	Budget	Bud Var
3,022,606	2,641,524	381,082	Operating Revenues	33,849,636	31,809,000	2,040,636
(1,562,530)	(1,521,260)	(41,270)	Operating Expenses (Ex Depreciation)	(16,920,900)	(16,862,068)	(58,832)
<u>68,727</u>	<u>44,445</u>	<u>24,282</u>	Interest Income	<u>540,671</u>	<u>302,000</u>	<u>238,671</u>
1,528,803	1,164,709	364,094	Cash Available For Debt Service	17,469,407	15,248,932	2,220,475
(6,523,861)	(6,523,861)	-	Interest Payments	(13,047,722)	(13,047,722)	-
<u>-</u>	<u>-</u>	<u>-</u>	Principal Payments	<u>-</u>	<u>-</u>	<u>-</u>
(4,995,058)	(5,359,152)	364,094	Net Cash Available For Debt Service	4,421,685	2,201,210	2,220,475
(2,011,358)	(1,515,556)	(495,802)	Non-Operating Revenues (Expenses)	(3,398,228)	(3,406,000)	7,772
2,014,941	1,710,885	304,056	Add: Capex Charged to Expense	4,407,857	7,904,000	(3,496,143)
-	(150,874)	150,874	Less: Project Reimbursement	(684,661)	(3,933,000)	3,248,339
-	-	-	Cash Outlays on Lease & Lease Reserve	(508,000)	(508,000)	-
<u>-</u>	<u>-</u>	<u>-</u>	Non-Cash Working Capital Changes	<u>-</u>	<u>-</u>	<u>-</u>
(4,991,475)	(5,314,697)	323,222	Net Cash Available For Capital	4,238,653	2,258,210	1,980,443
-	150,874	(150,874)	Project Reimbursement	684,661	3,933,000	(3,248,339)
-	-	-	Capital Contributions	-	-	-
-	-	-	Investments Converting To Cash	-	-	-
-	-	-	New Borrowing	-	-	-
<u>(2,305,556)</u>	<u>(1,717,698)</u>	<u>(587,858)</u>	Capital Expenditures	<u>(7,902,188)</u>	<u>(10,670,570)</u>	<u>2,768,382</u>
<u>(7,297,031)</u>	<u>(6,881,521)</u>	<u>(415,510)</u>	<b>NET FUND CASH FLOWS</b>	<u>(2,978,874)</u>	<u>(4,479,360)</u>	<u>1,500,486</u>
<b>DEBT SERVICE COVERAGE RATIO</b>						
1,500,109	1,179,631		Net Cash Available For Debt Service	17,440,802	15,769,632	
<u>1,087,310</u>	<u>1,087,310</u>		Debt Service	<u>13,047,722</u>	<u>13,047,722</u>	
<u><u>1.38</u></u>	<u><u>1.08</u></u>		<b>DSCR</b>	<u><u>1.34</u></u>	<u><u>1.21</u></u>	