



## LEHIGH COUNTY AUTHORITY

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

**Agendas & Minutes Posted:**  
[www.lehighcountyauthority.org](http://www.lehighcountyauthority.org)

Published: March 18, 2019

### BOARD MEETING AGENDA – March 25, 2019

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

- *February 25, 2019 Board meeting minutes*

4. Public Comments

5. Action / Discussion Items:

#### **FINANCE AND ADMINISTRATION**

- *Information Technology Master Plan (Approval) (yellow)*
- *Final Draft Capital Plan (2020-2024) – All Divisions (Approval) (tan)*

#### **WATER**

#### **WASTEWATER**

- *Resolution No. 3-2019-1 – Requesting PennDOT Cost Reimbursement for Utility Relocations for the Rapid Bridge Replacement Project (Approval) (green)*

6. Monthly Project Updates / Information Items (1<sup>st</sup> Board meeting per month) – **March report attached**

7. Monthly Financial Review (2<sup>nd</sup> Board meeting per month) – **February 2019 report attached**

8. Monthly System Operations Overview (2<sup>nd</sup> Board meeting per month) - **February 2019 report attached**

9. Staff Comments

10. Solicitor's Comments

11. Public Comments / Other Comments

12. Executive Sessions

13. Adjournment

#### **UPCOMING BOARD MEETINGS**

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

April 8, 2019

April 22, 2019

May 13, 2019

#### **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**

### **February 25, 2019**

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The Regular Meeting of the Lehigh County Authority was called to order at 12:00 p.m. on Monday, February 25, 2019, Vice Chairman Scott Bieber presiding. Other Members present at the commencement of the meeting were: Linda Rosenfeld, Jeff Morgan, Richard Bohner, Norma Cusick, and Ted Lyons. Chairman Brian Nagle was on the phone for the duration of the meeting. Authority Staff present were Liesel Gross, Brad Landon, Charles Volk, Ed Klein, John Parsons, Chris Moughan, Susan Sampson, Phil DePoe and Lisa Miller.

#### **REVIEW OF AGENDA**

Vice Chairman Bieber 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 were no changes to the agenda but did note that the January 2019 Monthly Financial Review was previously emailed to the Board and a printed copy was distributed at today's meeting. There will also be an Executive Session after the regular meeting to discuss a matter of potential litigation.

#### **APPROVAL OF MINUTES**

##### **February 11, 2019 Regular Meeting Minutes**

On a motion by Richard Bohner, seconded by Linda Rosenfeld, the Board approved the minutes of February 11, 2019 meeting (6-0). Norma Cusick abstained.

#### **PUBLIC COMMENTS**

None.

#### **ACTION AND DISCUSSION ITEMS**

##### **Board of Directors – Nomination of Officers**

Norma Cusick, serving as the Nominating Committee, indicated she had polled the Board members to determine what capacity they are willing to serve as Board officers. She then offered the following slate of nominations for 2019 officers:

Brian C. Nagle, Chair  
Richard H. Bohner, Secretary  
Scott Bieber, Vice Chair

Norma A. Cusick, Assistant Secretary  
Ted Lyons, Treasurer

Ms. Cusick asked if there were any other nominations, which there were not. Richard Bohner made a motion to close the nominations, which was seconded by Linda Rosenfeld. With no additional nominations from the floor, on a vote of 7-0, the nominations were closed and the Vice Chairman directed the Secretary to cast one ballot for each of the nominees, thus electing the officers for 2019. The term of the officers elected will begin on March 1, 2019.

**City Division Water Distribution & Sewer Collection System – 2018 Year in Review**

Jason Gruber, Manager of Distribution & Collection (D & C) was present and introduced Josh Kuhns, Chris Bogert, and Pierce Heffner who are all Maintenance Supervisors at D & C. A PowerPoint presentation was given on managing the City Division sewer collection and water distribution systems, including a review of work completed in 2018 as well as since the lease concession began.

Kevin Baker arrived at 12:12 p.m.

Mr. Heffner gave an overview of the maintenance program related to water mains, hydrants and valves. Mr. Bogert provided information related to service line maintenance and after-hours repairs that are completed by the D & C staff. Mr. Kuhns reviewed the maintenance program for the sewer system including sewer mains, interceptors, manholes and customer laterals. Some discussion followed regarding the use of technology, water loss through leakage and related maintenance activities.

Richard Bohner questioned if the stormwater plans from the City are in conflict with the work being done by D & C. Mr. Gruber stated that D & C communicates with the City to work in conjunction with any stormwater projects that coincide with each other to save on duplicating work and costs.

Mr. Gruber thanked Liesel Gross and the Board for their support. The Board acknowledged the hard work and dedication of the employees of Distribution and Collection and thanked the team for presenting this information at the Board meeting.

**Allentown Division Wastewater Treatment Plant Master Plan**

Liesel Gross stated the plan is in final draft form and the Authority is seeking comments from the Board and has also asked for comments from the City. John Parsons introduced Tim Bradley from Kleinfelder, Project Manager for the project. Mr. Bradley presented a PowerPoint presentation reviewing the details of the Wastewater Treatment Plant Master Plan process and resulting Capital Improvements Plan (CIP). The object of the Master Plan is to evaluate the existing conditions and identify phased improvements to enable reliable permit compliance over the full term of the lease, reduce operational risks, and enhance efficiency. The plan will also assist LCA with achieving its Capital Asset Management Goal according to the strategic plan. Mr. Bradley discussed the three primary tasks of the master plan project: Condition Assessment, Process Optimization, and Delaware River Basin Commission (DRBC) Special Protection Waters (SPW) Considerations. The result of these three tasks were then incorporated into the CIP which was the final task associated with the Master Plan. Mr. Bradley stated that one important consideration in structuring the CIP to avoid triggering the more stringent SPW treatment requirements, which would be very costly to implement. Compliance with the SPW regulations are triggered when a wastewater treatment plant undergoes substantial alterations or additions as defined by the DRBC. There was some discussion on these triggers.

Mr. Bradley reviewed in detail the 14 project proposals included as Near Term Improvements (0-10 years) in the Master Plan. Mr. Bradley discussed project priorities critical to plant performance. An outline of these projects is described in the plan. He then reviewed a summary of the Mid-Term Improvements (10-25 years) and Long-Term Improvements (25-50 years), most of which are related to the age of the assets located at the wastewater treatment plant. He noted that many of the plant components were installed in the 1920s or 1960s and will need to be replaced over the course of time.. Event-Driven Capital Improvements, resulting from the regulatory preparedness evaluations, were also presented and summarized in the plan.

The Board asked for clarification regarding how the SPW criteria would apply if there was an increase in the treatment capacity of 4 million gallons per day (MGD) at Kline's Island Wastewater Treatment plant. Mr. Bradley explained that under this scenario, the SPW requirements would have to apply to all flow above what existed in 2004, which was 31 MGD. If the plant needed to be expanded from the current capacity of 40 MGD up to 44 MGD, then roughly 15 MGD of the flows would be required to meet the new criteria, and compliance would likely be measured through a blending of the existing and new treatment standards across all flows.

Dan Koplish, Consultant to the City of Allentown, was present and handed out a document he had prepared showing his personal analysis of disparities between the CIP included in the Master Plan and the total cost of wastewater treatment plant projects as listed in the CH2M report presented to the LCA Board in 2018. He stated that the CH2M report had overstated the capital improvement requirements at the plant, and suggested that the Wastewater Treatment Plant Master Plan is the only document available that has reliable or realistic numbers regarding anticipated capital improvements costs. Liesel Gross explained there is also a Water System Master Plan that was completed by Arcadis in 2017, utilizing the same methodology used to prepare the Wastewater Master Plan. The capital improvements outlined in the Water Master Plan are also realistic and reliable. However, at the time the CH2M report was prepared, only the Water Master Plan had been completed and those costs were incorporated into the CH2M report. Now that the Wastewater Master Plan is also complete, the updated figures from both master plans can be used as a basis for moving forward in planning future capital improvements. She also noted that the projects outlined in the 0-5 year timeframe in the draft Wastewater Master Plan have already been incorporated into the Capital Plan documents that were presented to the Board at the last Board meeting.

### **MONTHLY FINANCIAL REVIEW**

Ed Klein gave an overview of the January 2019 financial report, highlighting variances between budgeted expenses and actual or forecasted expenses.

### **MONTHLY SYSTEM OPERATIONS OVERVIEW**

John Parsons reviewed the Monthly System Operations Overview report for January 2019 which included a status report of the Western Lehigh Interceptor High Flow Emergency Project as of February 18, 2019.

### **STAFF COMMENTS**

None.

### **SOLICITOR'S COMMENTS**

None.

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

None.

Vice Chairman Bieber called a recess at 1:41 p.m. The meeting reconvened at 1:49 p.m.

### **EXECUTIVE SESSION**

An Executive Session was held at 1:49 p.m. to discuss potential litigation.

The Executive Session ended at 2:38 p.m.

**ADJOURNMENT**

There being no further business, the Vice Chairman adjourned the meeting at 2:38 p.m.

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Richard H. Bohner  
Secretary

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## MEMORANDUM

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**Date:** March 15, 2019

**To:** LCA Board of Directors  
**From:** Chris Moughan, CIO  
**Subject:** Consolidated Internal Service Division – Administration Capital: Master IT Plan

**MOTIONS / APPROVALS REQUESTED:**

No.	Item	Amount
1	Capital Project Authorization	\$70,000
2	Professional Services Authorization – EZ Micro (1)	\$50,000

*(1) Included in the Capital Project Authorization*

**PROJECT OVERVIEW**

The Information Technology Master Plan is a document that assists Lehigh County Authority's IT department in listing and prioritizing all areas of technology, including but not limited to; ERP software, Server hardware, current security configurations, back up plans, ERP, and cyber security. The prior Master Plan was developed in 2012. Significant changes in LCA's operating environment have taken place since that time including:

- Addition of several additional large facilities and operating locations due to LCA's assumption of the water and sewer system operation in Allentown. These facility locations have vastly increased the complexity, size and scope of LCA's IT requirements for connectivity, storage and security.
- Addition of approximately 120 additional users as a result of workforce growth resulting from the Allentown lease.
- Rapid advancement of mobile technology and the use of this technology by LCA field crews.
- Exponentially increased volume of tasks, data and processes that have resulted from growth in LCA's customer base and assets.
- Strong performance of the IT team in implementing new technology at LCA, especially the advancement of LCA's use of the computerized maintenance management system (CMMS) and geographic information system (GIS).

Prior IT Master Plans had focused on detailing utility best practices for automation, process improvement or data management / reporting that LCA may wish to pursue as part of an overall IT strategy. This focus will be maintained by internal subject matter experts that have been developed by the IT team since 2012. This Master Plan is required to provide a more technical-level, detailed review of all current systems, current and future configurations/versions, database interdependencies, security requirements, etc., which will drive planning for replacement and upgrades to maintain a high level of system integrity for all users as the IT team continues to drive innovation and automation at LCA.

A consultant will perform IT assessment and technology information retrieval and documentation for four locations (1053 Spruce Road, 1300 Martin Luther King Jr. Dr., 112 Union St., 1242 Martin Luther King Jr. Dr.), as well as online/cloud infrastructure as needed.

**FINANCIAL**

This project is listed in the 2019 Administration Capital Plan and will be funded from the Consolidated Internal Service Division.

**PROJECT STATUS**

Pending Board approval.

**THIS APPROVAL**

Lehigh County Authority (LCA) intends to retain the services of an IT consultant to provide the planning services. If needed, approval for the design and construction related engineering services will be requested at a later date. The following table summarizes the professional services to be performed under this approval:

<b>Professional Services</b>
1. Deliver an executive summary
2. Create a Master IT Plan Mission statement
3. Describe and execute a department discovery process
4. Reveal initiatives, findings, and implications by department
5. Prepare department and organizational recommendations, including budgetary amounts
6. Define return on investments and road-mapping procedures

**CONSULTANT SELECTION PROCESS**

LCA solicited proposals from several IT Technology firms through various channels. EZ Micro was the selected vendor as no other proposals were received. Results of the proposals are summarized below:

<b>Consultant</b>	<b>Proposal Cost</b>
<i>EZ Micro Solutions</i>	<i>\$50,000</i>
Integra One	No Reply
Panurgy	No Reply

EZ Micro has been a long time historic partner of LCA and possesses great insight into our current IT setup and style of business.

**PROJECT SCHEDULE**

Pending Board approval, project is anticipated to begin in April of 2019 and be completed by October of 2019.

**FUTURE AUTHORIZATIONS**

Design and construction services, if needed, at a later date.

## CAPITAL PROJECT AUTHORIZATION

<b>PROJECT NO.:</b>	CON-A-3	<b>BUDGET FUND:</b>	Consolidated Internal Service Div\Administration\Capital
<b>PROJECT TITLE:</b>	Consolidated Internal Service Division – Administration Capital: Master IT Plan		<b>PROJECT TYPE:</b>
<b>THIS AUTHORIZATION:</b>	<b>\$70,000</b>	<input type="checkbox"/>	Construction
<b>TO DATE (W/ ABOVE)</b>	<b>\$70,000</b>	<input checked="" type="checkbox"/>	Engineering Study
		<input type="checkbox"/>	Equipment Purchase
		<input type="checkbox"/>	Amendment No. 1

### DESCRIPTION AND BENEFITS:

The project provides for IT assessment and technology information retrieval and documentation tasks for four locations (1053 Spruce Road, 1300 Martin Luther King Jr. Dr., 112 Union St., 1242 Martin Luther King Jr. Dr.), as well as online/cloud infrastructure as needed. The final product shall be a Master IT Plan for internal planning purposes.

EZ Micro Solutions will be used for these planning services. The project is anticipated to begin in April of 2019 and be completed by October of 2019.

Please see attached Board Memo for further project details.

### Authorization Status:

Requested This Authorization	
Planning Phase	
Staff	\$10,000
Engineering Consultant	\$50,000
Miscellaneous	\$5,000
Contingencies	\$5,000
<b>Total This Authorization</b>	<b>\$70,000</b>

Future Authorizations	
<b>Design and Construction Phase</b>	<b>\$355,000</b>

<b>Total Estimated Project</b>	<b>\$425,000</b>
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### REVIEW AND APPROVALS:

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





**Lehigh County Authority**

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

## PROFESSIONAL SERVICES AUTHORIZATION

**Professional:**

**Date:** March 18, 2019

EZ Micro Solutions  
2670 Lehigh Street  
Whitehall, PA 18052

**Requested By:** Christopher Moughan

**Approvals**

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

**General Manager:** \_\_\_\_\_

### Suburban Division: Master IT Plan – Planning Phase

EZ Micro Solutions will perform the planning related services for the creation of an actionable Master IT Plan for LCA's Information Technology operation. EZ Micro Solutions will perform IT assessment and technology information retrieval and documentation for four locations (1053 Spruce Road, 1300 Martin Luther King Jr. Dr., 112 Union St., 1242 Martin Luther King Jr. Dr.), as well as online/cloud infrastructure as needed.

Professional Services (1)
1. Deliver an executive summary
2. Create a Master IT Plan Mission statement
3. Describe and execute a department discovery process
4. Reveal initiatives, findings, and implications by department
5. Prepare department and organizational recommendations, including budgetary amounts
6. Define return on investments and road-mapping procedures

(1) For Planning Phase Only

Please reference the cover Memo for additional information.

**Planning Phase:**

**Cost Estimate (not to be exceeded without further authorization): \$50,000.00**

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



1053 SPRUCE ROAD \* P.O. BOX 3348 \* ALLENTOWN, PA 18106-0348  
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email: [service@lehighcountyauthority.org](mailto:service@lehighcountyauthority.org)

## MEMORANDUM

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**TO:** LCA Board of Directors  
**FROM:** Liesel Gross, CEO  
**DATE:** March 18, 2019  
**RE:** Final Draft Capital Plan (2020-2024) – All Divisions

In January 28, 2019 and February 11, 2019, Lehigh County Authority staff presented the draft Capital Plan for the years 2020-2024. The plans were also distributed to various external stakeholders including municipalities within LCA's service area, the Lehigh County Board of Commissioners, Lehigh Valley Planning Commission, and the City of Allentown. This memo summarizes the comments received and provides details of the updates made to the plan to develop a Final Draft Capital Plan for Board consideration for approval at the March 25, 2019 meeting.

It is important to note that approval of the plan by LCA's Board does not indicate authorization for plan funding. Such authorization occurs through several other mechanisms including:

- **Annual Budget** – The LCA Board approves the capital budget for the upcoming calendar year as part of the annual budget process that is completed in October each year. This approval provides authorization for routine/recurring capital expenses that fall within LCA's purchasing guidelines.
- **Project Authorizations** – The LCA Board approves individual capital projects and expenditures at the time they are more concretely developed with a full project scope, project budget, cost justification and alternatives analysis if required.
- **Project Financing** – The LCA Board approves all new debt issuances including new loans or grant applications that may be secured to fund the capital program.

At each of these approval stages, the LCA staff and Board may discuss and adjust project scope and prioritization. However, this Capital Plan should be viewed as the guiding document for moving forward on system improvements that are required for the provision of safe and reliable service to the communities we serve.

The 2020-2024 Capital Plan also includes financial analysis of the impacts to revenue requirements that will drive annual rate-making decisions. This analysis includes a review of funding sources for all projects, movement toward self-funding annual and recurring asset rehabilitation via operating revenues, expected inflation of operating expenses, and achievement of key financial metrics including debt service coverage ratio and operating cash reserve requirements.

Final Draft Capital Plan (2020-2024) – All Divisions: Board members should refer to the draft plan documents presented previously, with the changes noted below and attached to this memo as the only changes from the prior draft. If acceptable, Board approval on March 25, 2019 is requested.

*\* Note: A limited number of printed copies of the Final Draft Capital Plan will be available at the meeting.*

## Public Comments Received

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Lehigh Valley Planning Commission: The planning commission reviews LCA's plan annually and provides comment. The Commission's letter for LCA's draft 2020-2024 capital plan is attached noting that the new projects included in the plan are consistent with the regional comprehensive plan. **(attached, page 1)**

City of Allentown: City officials review the Allentown Division capital plan annually and provides comments, primarily on upcoming projects that may have an impact on user rates. The City's letter for LCA's draft 2020-2024 capital plan is attached noting areas of agreement on cost recovery and projects for which additional discussion will be required. **(attached, page 3)**

## Updated Plan Details

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Based on internal review and feedback received through the public comment period, some adjustments were made to the draft capital plan. Most changes are simply clarifications, with one project being revised in scope. Details are provided below with any pages that changed from the prior draft plan submission attached to this memo for Board review.

Administrative Projects: No Changes.

Allentown Wastewater: No Changes.

Allentown Water: There were no changes to the project listing, costs or financing evaluation. However, some minor project description updates / clarification have been made, with the associated sheets from the plan attached for your reference:

- **AD-W-A – Annual Projects** – Project description was updated to remove reference to reservoir maintenance and rehabilitation. Costs were removed from this project due to their inclusion in other projects, and the language needed to be updated to reflect that change. **(attached, page 5)**
- **AD-W-10 – System Service & Auxiliary Power Improvements** – The "Project Type" field on the project description form was updated with the code "COL" which indicates this project is funded by a required Change of Law (COL). This indicates cost recovery will be received via the terms of the Change of Law provisions included in the Allentown water/sewer lease. **(attached, page 7)**
- **AD-W-25 – Tank & Reservoir Rehabilitation** – Updated project description to more accurately reflect the work intended with this project, which is the mechanical upgrades for the reservoirs as outlined in the water master plan completed in 2017. **(attached, page 9)**

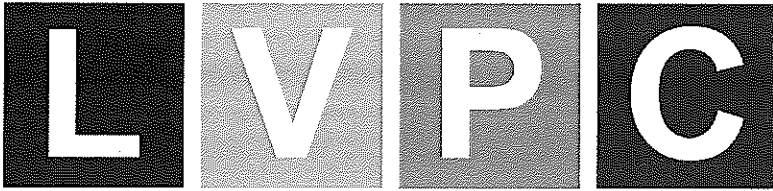
Suburban Water: There are no changes to the project listing, costs or financing evaluation. However, one minor project description update was made, with the associated sheet from the plan attached for your reference:

- **SD-W-4 – Upper Milford Central Division Improvements (Buss Acres)** – Project description updated to reflect the system is now on LCA’s common rate structure for water, which was implemented in 2018. *(attached, page 11)*

Suburban Wastewater: The following items are attached to describe the recommended changes to the Suburban Wastewater Capital Plan for 2020-2024:

- **SD-S-17 – Heidelberg Heights Inflow & Infiltration Investigation & Rehabilitation Program** – Upon internal discussion and consultation with state regulators, staff recommends a more aggressive program to address ongoing wet-weather system performance to eliminate treatment plant bypasses and noncompliance events. An additional \$600,000 in rehabilitation work has been added to this project. The draft plan included \$500,000 for this work, and the updated plan now reflects \$1,100,000, which staff believes will be adequate to more fully address required system rehabilitation. *(attached, page 13)*
- **Suburban Wastewater Plan Summary** – An updated summary sheet showing all projects is attached, with the change to SD-S-17 noted above included. *(attached, page 15)*
- **Suburban Wastewater Capital Financing Justification** – An updated summary of funding sources for the Suburban Wastewater capital program is attached, reflecting the additional \$600,000 added to project SD-S-17 will be generated from operating revenues/reserves. *(attached, page 17)*





## Lehigh Valley Planning Commission

STEPHEN REPASCH  
Chair

GREG ZEBROWSKI  
Vice Chair

STEVEN GLICKMAN  
Treasurer

BECKY A. BRADLEY, AICP  
Executive Director

March 4, 2019

Mr. Charles Volk, PE  
Chief Capital Works Officer  
Lehigh County Authority  
P.O. Box 3348  
Allentown, Pennsylvania 18106-0348

***Re: LCA Preliminary Capital Plans - Allentown and Suburban Divisions 2020-2024***

Dear Mr. Volk:

The Lehigh Valley Planning Commission (LVPC), at its regular monthly meeting on February 28, 2019, reviewed the above-referenced plans and would like to offer the following comments. The comments, as shown on the attached page, are provided for water and wastewater projects appearing for the first time in the Capital Plans. The Suburban Division Capital Plan includes four new projects and the Allentown Division Capital Plan includes nine new projects for which comments are provided.

Please call me if you have any questions.

Sincerely,

Susan L. Rockwell  
Senior Environmental Planner

cc: Lehigh County Commissioners

TITLE	BRIEF DESCRIPTION	LVPC COMMENT
1. Lehigh County Authority (LCA) Preliminary Capital Plans (2020-2024)	<p><b><u>Allentown Division</u></b>  New Projects:  <u>Water</u></p> <ul style="list-style-type: none"> <li>• General Improvements <ul style="list-style-type: none"> <li>- Includes roof repairs, pump painting, garage improvements.</li> </ul> </li> <li>• System Service and Auxiliary Power Improvements <ul style="list-style-type: none"> <li>- Improvements to ensure water availability during significant power outages.</li> </ul> </li> <li>• High Lift Variable Frequency Drive Pump Replacements <ul style="list-style-type: none"> <li>- Install 3 new pumps (2 existing replaced, one new).</li> </ul> </li> <li>• Tank and Reservoir Rehabilitation <ul style="list-style-type: none"> <li>- Includes repairs to exterior cracks on 6 tanks/reservoirs.</li> </ul> </li> </ul> <p><u>Sewer</u></p> <ul style="list-style-type: none"> <li>• General Improvements <ul style="list-style-type: none"> <li>- Includes boiler replacements, odor control unit replacement.</li> </ul> </li> <li>• Wastewater Treatment Plant Improvements <ul style="list-style-type: none"> <li>- Main Pump Station Improvements</li> <li>- Sludge Thickening/Digestion Improvements</li> <li>- 480V Motor Control Center Replacements</li> <li>- Final Clarifier 1-4 Rehabilitation</li> </ul> </li> </ul>	<p>Improvements that will result in more efficient, safe and reliable sewer and water service are consistent with the County Comprehensive Plan.</p>
	<p><b><u>Suburban Division</u></b>  New Projects:  <u>Water</u></p> <ul style="list-style-type: none"> <li>• Central Lehigh Division Well Improvements Study <ul style="list-style-type: none"> <li>- Evaluation of existing wells not being used due to water quality issues. Study to determine upgrade options/costs to possibly bring wells back into service.</li> </ul> </li> <li>• Central Lehigh Division Water System Optimization <ul style="list-style-type: none"> <li>- Study to focus on future water demand scenarios and alternatives for system improvements to provide adequate water supply/pressure to potential large demand customers.</li> </ul> </li> </ul> <p><u>Sewer</u></p> <ul style="list-style-type: none"> <li>• Spring Creek Force Main Condition Assessment <ul style="list-style-type: none"> <li>- Assessment to identify location of gas pockets and leaks.</li> </ul> </li> <li>• Weisenberg, Lowhill &amp; Upper Milford Sanitary Sewer Evaluation Study <ul style="list-style-type: none"> <li>- Study to identify areas of concern &amp; prioritize future sewer system improvements. May include manhole inspections, flow monitoring.</li> </ul> </li> </ul>	<p>Studies that will result in more efficient, safe and reliable sewer and water service are consistent with the County Comprehensive Plan.</p>



**Craig W. Messinger**  
**Interim Director of Public Works**  
Department of Public Works  
641 South Tenth Street  
Allentown PA 18103  
610.437.7587  
Fax 610.437.7614  
craig.messinger@allentownpa.gov

March 11, 2019

Philip DePoe, P.E.  
Capital Works Program Manager  
Lehigh County Authority  
P.O. Box 3348  
1053 Spruce Street  
Allentown, PA 18106-0348

RE: Draft 5-Year Capital Plan, Allentown Division, 2020-2024

Dear Mr. DePoe

Pursuant to Article 4 of the Concession and Lease Agreement (Lease), the City of Allentown (City) is responding to your Draft 5-Year Capital Plan, Allentown Division, 2020-2024 received 2/11/2019. City's comments are on those projects which the summary spreadsheets in LCA's Preliminary 2020 Draft 5 Year Capital Plan show as possibly getting underway in 2020 and for which the City or the City's rate payers might potentially provide cost recovery.

## **WATER**

### **AD-W-7 Water Main Replacements**

As mentioned in the previous Capital Plan review, the estimated project cost for replacement of approximately two miles of water main appears extreme when compared with the average final costs from the previous replacement cycles.

### **AD-W-15 Itron/AMR Meter Project**

This project was previously approved and is ongoing. No further comment is necessary.

### **AD-W-10 System Service and Auxiliary Power Improvements**

The City and LCA are currently collaborating on this project. Note that the "Project Type" and "Funding" differ between the Capital Program sheet and the Project Detail Sheet. The Project Detail sheet should be updated to correspond to the Change of Law (CoL) details.

### **AD-W-24 High Lift VFD Pump Replacements**

In the City's October 26, 2018 Capital Plan response letter regarding this project it was commented "...this project is still under study and LCA is awaiting a report providing review of alternative/options and related costs. No actual work on this project will get underway in 2019; therefore, in keeping with LCA's 9/21/17 letter, no response is necessary until the report is received and can be evaluated. Although projects are included in the Water Master Plan, this alone is not considered justification for a major capital project. The Master Plans are planning



documents intended to identify potential issues which need to be more rigorously evaluated to determine if operational changes are necessary or remediation, repair, or replacement of equipment is necessary. The next step is a report/study relative to an identified issue." City is still waiting for a copy of the study.

## **WASTEWATER**

### **AD-S- 5 WWTP Electrical Substation Replacement**

This project was previously approved and is underway. No further comment is necessary.

### **AD-S-11 Administrative Order Improvements**

This project was previously approved, but no further action is to be taken until a response is received from United States Environmental Agency (EPA) on the Regional Flow Management Strategy submitted 8/1/2018.

### **AD-S- 16 Interim Blending Pumping System**

This project was previously approved, but no action should be taken until there is a response to the NPDES permit renewal by Pennsylvania Department of Environmental Protection.

### **AD-S- 5A WWTP Electrical Substation Replacement Phase 2**

This project was a portion of the originally approved AD-S-5 project which was removed due to funding constraints. This Phase 2 project will need to be submitted through the MCIP process to be reviewed for possible capital cost recovery approval.

### **AD-S- 20 WWTP Sludge Thickening/Digestion Improvements**

This project is an aggregation of capital of improvements that include the primary sludge digester feed line replacement, thickener tank #3 collector mechanism replacement, digester/dewatering building piping replacement and boiler replacement. This project does not meet the qualification in the Lease for aggregation of single capital improvements and therefore is not eligible for capital cost recovery.

The Office of Compliance looks forward to the March 28, 2019 LCA City Division Capital Planning meeting. Thank you for providing your proposed program and for your continued cooperation. If you have any questions or require additional information, please do not hesitate to contact the Office of Compliance.

Sincerely,

Handwritten signature of Craig Messinger in cursive, with initials "JM" and a checkmark below it.

Craig Messinger  
Interim Director of Public Works

CC: Brian Nagle, LCA Board of Directors  
Liesel Gross, LCA  
Ed Klein, LCA  
Chuck Volk, LCA  
Daniel Koplish, COA  
Office of Compliance, COA

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN DIVISION - CAPITAL IMPROVEMENTS PLAN  
PROJECT DETAIL SHEET**

<b>Project Name</b>	ANNUAL PROJECTS						
<b>Budget Area</b>	Water	<b>Department</b>	Capital Works	<b>Date</b>	3/11/2019	<b>Project No.</b>	AD-W-A
<b>Location</b>	Allentown			<b>Prj. Type</b>	Regular	<b>Prj. Funding</b>	LCA
<b>Prj. Category</b>	Primary	AM - Varies	Secondary	Sys Imp	<b>Preparer</b>		PMD

Purpose of Expenditure (check all that apply)	
<input checked="" type="checkbox"/> New Facility	<input type="checkbox"/> Correct Known or Potential Safety Issue
<input checked="" type="checkbox"/> Existing Facility - Rehabilitation/Upgrade	<input checked="" type="checkbox"/> Equipment Obsolete
<input type="checkbox"/> Scheduled Replacement	<input type="checkbox"/> Comply with Regulatory Requirements
<input type="checkbox"/> Improved Service	<input checked="" type="checkbox"/> Equipment/Infrastructure at End of Useful Life
<input type="checkbox"/> Study	<input type="checkbox"/> Other (explain):

Additional Information		
Expected Useful Life (Years)	40	<b>Comments</b>
Approx. No. of Customers Benefitted	*	*All customers of the City of Allentown, City signatories and Western Lehigh signatories are positively impacted.
Is this System part of a Common User Rate?	N/A	
Will the Project Require Obtaining Land Rights	No	

Detailed Project Description
This annual project includes the following: New & Replacement Meter Installations, Distribution Mains - Development & Service Connections, Distribution Mains - Upsizing, Other Equipment, WFP General Improvements, Mobile Equipment, General Water System Replacements/Improvements, Capital Management, and WFP SCADA Upgrades (in 2019 only).

Purpose and Needs to be Met by the Project
Annual projects that help maintain the operation of the distribution system and the WFP.

Project Status - Describe what work, if any has been completed or underway for this project
This is an annual project.

Annual Cost Impact	
Operating - Increase/(Decrease)	N/A
Debt Service	\$ -
<b>Net</b>	<b>\$ -</b>

Revenue Impact	
Gain/(Loss) in Annual Revenue	N/A
Assessment, Contribution in Aid-of-Construction	N/A
Other	

Borrowing Information	
Interest Rate	5.5000%
Term (Years)	30

Explanation if Necessary
Annual cost impact to be determined as needed.

<b>Project No.</b>	AD-W-A
<b>Project Name</b>	ANNUAL PROJECTS

Estimated Project Costs :	
LCA Staff	\$ 500,000
Land Acquisition	
Construction/Equipment	\$ 7,000,000
Professional Services	\$ 500,000
Other	\$ 300,000
Contingencies	\$ 500,000
<b>Total Project Cost</b>	<b>\$ 8,800,000</b>

Project Estimate Level	
	Conceptual Estimate
<b>X</b>	Preliminary Estimate
	Budget Estimate
	Definitive Estimate

<b>Requested in this Capital Program</b>	<b>\$ 7,500,000</b>
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Source of Funds					
		Need	Source		
			Operating Revenues	Borrowing	Assessment, Contr.-in-Aid Reserves
2019 Budget		\$ 1,300,000			
1st Year	2020	\$ 1,250,000			\$ 1,250,000
2nd Year	2021	\$ 1,250,000			\$ 1,250,000
3rd Year	2022	\$ 1,000,000			\$ 1,000,000
4th Year	2023	\$ 1,600,000			\$ 1,600,000
5th Year	2024	\$ 2,400,000			\$ 2,400,000

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**LEHIGH COUNTY AUTHORITY  
ALLENTOWN DIVISION - CAPITAL IMPROVEMENTS PLAN  
PROJECT DETAIL SHEET**

<b>Project Name</b>	SYSTEM SERVICE AND AUXILIARY POWER IMPROVEMENTS						
<b>Budget Area</b>	Water	<b>Department</b>	Capital Works	<b>Date</b>	3/11/2019	<b>Project No.</b>	AD-W-10
<b>Location</b>	Allentown			<b>Prj. Type</b>	COL	<b>Prj. Funding</b>	LCA/Allentown
<b>Prj. Category</b>	Primary	Regulatory	Secondary	Master Plan	<b>Preparer</b>		PMD

Purpose of Expenditure (check all that apply)		
<input checked="" type="checkbox"/>	New Facility	Correct Known or Potential Safety Issue
<input type="checkbox"/>	Existing Facility - Rehabilitation/Upgrade	Equipment Obsolete
<input type="checkbox"/>	Scheduled Replacement	Comply with Regulatory Requirements
<input checked="" type="checkbox"/>	Improved Service	Equipment/Infrastructure at End of Useful Life
<input type="checkbox"/>	Study	Other (explain):

Additional Information		
Expected Useful Life (Years)	40	<b>Comments</b>
Approx. No. of Customers Benefitted	*	*All customers of the City of Allentown, Central Lehigh Division and bulk water sales to other municipalities.
Is this System part of a Common User Rate?	N/A	
Will the Project Require Obtaining Land Rights	N/A	

Detailed Project Description
The water filtration plant currently relies on dual electrical feeds (from the same electrical PPL substation) to support reliable water production. Title 25, Chapter 109 of the Pennsylvania Code was recently modified in 2018 to ensure water facilities can supply water during a significant power outage. This project will investigate methods to comply with this change of law.

Purpose and Needs to be Met by the Project
Enhanced resiliency to provide water during prolonged power outages. Current project costs assume a new PPL service will be installed from a separate substation in order to comply with the change of law. Final cost details are to be determined upon alternate selection.

Project Status - Describe what work, if any has been completed or underway for this project
This evaluation was initially completed in 2017 as part of the Water Filtration Plant Master Plan project (backup generator was recommended). Due to the recent modifications to the PA Code Chapter 109 rules and regulations, a study was conducted at the end of 2018 to determine the impact (if any) at the Water Filtration Plant regarding the installation of a backup generator, etc. The study recommended a few alternatives needed to comply with Chapter 109. Final alternative selection decision will be made in consultation with the City in 2019. Full compliance is not needed until August 2021.

Annual Cost Impact	
Operating - Increase/(Decrease)	N/A
Debt Service	\$ -
<b>Net</b>	<b>\$ -</b>

Revenue Impact	
Gain/(Loss) in Annual Revenue	N/A
Assessment, Contribution in Aid-of-Construction	N/A
Other	

Borrowing Information	
Interest Rate	5.5000%
Term (Years)	30

Explanation if Necessary
Annual cost impact to be determined as needed.

<b>Project No.</b>	AD-W-10
<b>Project Name</b>	SYSTEM SERVICE AND AUXILIARY POWER IMPROVEMENTS

Estimated Project Costs :	
LCA Staff	\$ 25,000
Land Acquisition	\$ -
Construction/Equipment	\$ 750,000
Professional Services	\$ 50,000
Other	\$ 50,000
Contingencies	\$ 10,000
<b>Total Project Cost</b>	<b>\$ 885,000</b>

Project Estimate Level	
	Conceptual Estimate
<b>X</b>	Preliminary Estimate
	Budget Estimate
	Definitive Estimate

<b>Requested in this Capital Program</b>	<b>\$ 885,000</b>
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Source of Funds					
		Need	Source		
			Operating Revenues	Borrowing	Assessment, Contr.-in-Aid Reserves
2019 Budget		\$ -			
1st Year	2020	\$ 85,000			
2nd Year	2021	\$ 800,000			
3rd Year	2022				
4th Year	2023	\$ -			
5th Year	2024	\$ -			

This project is currently listed as unfunded; however, upon selection of alternative the funding source will change

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN DIVISION - CAPITAL IMPROVEMENTS PLAN  
PROJECT DETAIL SHEET**

<b>Project Name</b>	TANK AND RESERVOIR MECHANICAL UPGRADES						
<b>Budget Area</b>	Water	<b>Department</b>	Operations	<b>Date</b>	3/11/2019	<b>Project No.</b>	AD-W-25
<b>Location</b>	Allentown			<b>Prj. Type</b>	LCA-MCI	<b>Prj. Funding</b>	CCRC
<b>Prj. Category</b>	<b>Primary</b>	Master Plan	<b>Secondary</b>	Sys Imp	<b>Preparer</b>		PMD

Purpose of Expenditure <i>(check all that apply)</i>		
<input checked="" type="checkbox"/> New Facility		Correct Known or Potential Safety Issue
<input checked="" type="checkbox"/> Existing Facility - Rehabilitation/Upgrade		<input checked="" type="checkbox"/> Equipment Obsolete
<input type="checkbox"/> Scheduled Replacement		Comply with Regulatory Requirements
<input type="checkbox"/> Improved Service		<input checked="" type="checkbox"/> Equipment/Infrastructure at End of Useful Life
<input type="checkbox"/> Study		Other (explain):

Additional Information		
Expected Useful Life (Years)	Varies	<b>Comments</b>
Approx. No. of Customers Benefitted	*	*All customers of the City of Allentown, Central Lehigh Division and bulk water sales to other municipalities.
Is this System part of a Common User Rate?	N/A	
Will the Project Require Obtaining Land Rights	N/A	

Detailed Project Description
The project involves the rehabilitation and repair of the following tanks and reservoirs: (a) Schantz Spring Tank, (b) Huckleberry Ridge Reservoir, (c) South Mountain Reservoir, (d) East Side Reservoir. The majority of the work will be related to the mechanical and control equipment/piping replacement as required.

Purpose and Needs to be Met by the Project
Enhanced process and physical redundancy, improved operations and maintenance, and asset management.

Project Status - Describe what work, if any has been completed or underway for this project
This project was identified in 2017 as part of the Water Filtration Plant Master Plan project. The Master Plan's scope for this project is also linked to AD-W-I (Indenture Report Improvements); therefore, a portion of this project is allocated to that capital number as well.

Annual Cost Impact	
Operating - Increase/(Decrease)	N/A
Debt Service	\$ -
<b>Net</b>	<b>\$ -</b>

Revenue Impact	
Gain/(Loss) in Annual Revenue	N/A
Assessment, Contribution in Aid-of-Construction	N/A
Other	

Borrowing Information	
Interest Rate	5.5000%
Term (Years)	30

Explanation if Necessary
Annual cost impact to be determined as needed.

<b>Project No.</b>	AD-W-25
<b>Project Name</b>	TANK AND RESERVOIR MECHANICAL UPGRADES

Estimated Project Costs :	
LCA Staff	\$ 80,000
Land Acquisition	\$ -
Construction/Equipment	\$ 1,300,000
Professional Services	\$ 100,000
Other	\$ 10,000
Contingencies	\$ 10,000
<b>Total Project Cost</b>	<b>\$ 1,500,000</b>

Project Estimate Level	
	Conceptual Estimate
<b>X</b>	Preliminary Estimate
	Budget Estimate
	Definitive Estimate

<b>Requested in this Capital Program</b>	<b>\$ 1,500,000</b>
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Source of Funds					
		Need	Source		
			Operating Revenues	Borrowing	Assessment, Contr.-in-Aid
2019 Budget		\$ -			
1st Year	2020	\$ -			
2nd Year	2021	\$ -			
3rd Year	2022	\$ 100,000			
4th Year	2023	\$ 700,000			
5th Year	2024	\$ 700,000			

This project is unfunded.
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**LEHIGH COUNTY AUTHORITY  
SUBURBAN DIVISION - CAPITAL IMPROVEMENTS PLAN  
PROJECT DETAIL SHEET**

<b>Project Name</b>	UPPER MILFORD CENTRAL DIVISION (UMCD) IMPROVEMENTS - BUSS ACRES						
<b>Budget Area</b>	Water	<b>Department</b>	Capital Works	<b>Date</b>	1/17/2019	<b>Project No.</b>	SD-W-4
<b>Location</b>	Upper Milford Township			<b>Prj. Type</b>	Regular	<b>Prj. Funding</b>	LCA
<b>Prj. Category</b>	Primary	AM - High	Secondary	Regulatory	<b>Preparer</b>		ALK

Purpose of Expenditure (check all that apply)			
<input checked="" type="checkbox"/>	New Facility	<input checked="" type="checkbox"/>	Correct Known or Potential Safety Issue
<input type="checkbox"/>	Existing Facility - Rehabilitation/Upgrade	<input type="checkbox"/>	Equipment Obsolete
<input type="checkbox"/>	Scheduled Replacement	<input checked="" type="checkbox"/>	Comply with Regulatory Requirements
<input checked="" type="checkbox"/>	Improved Service	<input checked="" type="checkbox"/>	Equipment/Infrastructure at End of Useful Life
<input type="checkbox"/>	Study	<input type="checkbox"/>	Other (explain):

Additional Information		
Expected Useful Life (Years)	20	Comments
Approx. No. of Customers Benefitted	100	
Is this System part of a Common User Rate?	Yes	
Will the Project Require Obtaining Land Rights	TBD	

Detailed Project Description
<p>The project includes the replacement of two existing aged problematic hydro-pneumatic operated well stations in need of mechanical, structural, HVAC and electrical repairs. The pressurized 6,000 gallon water storage tanks at both facilities have exceeded their useful life and are not in compliance with regulatory requirements for pressure vessels. The project involves the consolidation of both stations on the largest existing well station parcel with a single new well/pump station and a new, larger water storage tank. The new station will be a variable frequency drive-controlled double pumping system with full SCADA telemetry/control. In addition, given the water supply has a high level of radon (currently there is no regulatory limit), design provisions will be incorporated to facilitate the future addition of radon mitigation equipment conditioned on the establishment of a regulatory limit.</p>

Purpose and Needs to be Met by the Project
<p>The Project will improve the level of service, reduce the risk of failure and provide regulatory compliance. Additionally, the design will accommodate the future addition of radon mitigation equipment if a regulatory radon limit is established.</p>

Project Status - Describe what work, if any has been completed or underway for this project
<p>Radon Evaluation and Mitigation Study done in April 2013. Asset Evaluation Study done in 2016. Design began in 2018.</p>

Annual Cost Impact	
Operating - Increase/(Decrease)	N/A
Debt Service	\$ 61,900
<b>Net</b>	<b>\$ 61,900</b>

Revenue Impact	
Gain/(Loss ) in Annual Revenue	N/A
Assessment, Contribution in Aid-of-Construction	N/A
Other	

Borrowing Information	
Interest Rate	5.5000%
Term (Years)	30

Explanation if Necessary
<p>Electrical power costs will increase because of the conversion from the hydro-pneumatic to a double pumping system. If radon mitigation equipment is installed in the future, operating costs will increase again because of added electrical power needs and maintenance. Exact costs to be determined.</p>



<b>Project No.</b>	SD-W-4
<b>Project Name</b>	UPPER MILFORD CENTRAL DIVISION (UMCD) IMPROVEMENTS - BUSS ACRES

Estimated Project Costs :	
LCA Staff	\$ 50,000
Land Acquisition	\$ -
Construction/Equipment	\$ 1,140,000
Professional Services	\$ 200,000
Other	\$ 10,000
Contingencies	\$ 200,000
<b>Total Project Cost</b>	<b>\$ 1,600,000</b>

Project Estimate Level	
	Conceptual Estimate
<b>X</b>	Preliminary Estimate
	Budget Estimate
	Definitive Estimate

<b>Requested in this Capital Program</b>	<b>\$ 900,000</b>
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Source of Funds					
		Need	Source		
			Operating Revenues	Borrowing	Assessment, Contr.-in-Aid Reserves
2019 Budget		\$ 700,000			
1st Year	2020	\$ 800,000		\$ 800,000	
2nd Year	2021	\$ 100,000		\$ 100,000	
3rd Year	2022	\$ -		\$ -	
4th Year	2023	\$ -		\$ -	
5th Year	2024	\$ -		\$ -	

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**LEHIGH COUNTY AUTHORITY  
SUBURBAN DIVISION - CAPITAL IMPROVEMENTS PLAN  
PROJECT DETAIL SHEET**

<b>Project Name</b>	HEIDELBERG HEIGHTS INFLOW & INFILTRATION INVESTIGATION & REMEDIATION PROGRAM						
<b>Budget Area</b>	Wastewater	<b>Department</b>	Capital Works	<b>Date</b>	3/14/2019	<b>Project No.</b>	SD-S-17
<b>Location</b>	HHD, Heidleberg Township			<b>Prj. Type</b>	Regular	<b>Prj. Funding</b>	LCA
<b>Prj. Category</b>	<b>Primary</b>	AM - Varies	<b>Secondary</b>	Regulatory	<b>Preparer</b>		CEV/JMP

Purpose of Expenditure (check all that apply)	
<input type="checkbox"/> New Facility	<input type="checkbox"/> Correct Known or Potential Safety Issue
<input checked="" type="checkbox"/> Existing Facility - Rehabilitation/Upgrade	<input type="checkbox"/> Equipment Obsolete
<input type="checkbox"/> Scheduled Replacement	<input checked="" type="checkbox"/> Comply with Regulatory Requirements
<input checked="" type="checkbox"/> Improved Service	<input checked="" type="checkbox"/> Equipment/Infrastructure at End of Useful Life
<input type="checkbox"/> Study	<input type="checkbox"/> Other (explain):

Additional Information		
Expected Useful Life (Years)	20	Comments
Approx. No. of Customers Benefitted	145	
Is this System part of a Common User Rate?	Yes	
Will the Project Require Obtaining Land Rights	No	

Detailed Project Description
Includes investigative and rehabilitative work to address wet weather inflow and infiltration. Rehabilitative work includes replacement of original VCP sewer main pipe, VCP sewer lateral replacment, manhole replacement, manhole sealing, cleanout installation on laterals, and internal lining of main pipe and laterals. It is assumed that the annual construction projects will be designed, managed and bid in-house.

Purpose and Needs to be Met by the Project
The goal of this multi-year project is to eliminate DEP violations from wet weather overflows, bypasses, and effluent limit exceedance. Flows into the wastewater treatment plant are 3 to 4 times the plant capacity during peak weather events. Mitigation of the compliance issues requires elimination of excess inflow and infiltration into the sewage collection system.

Project Status - Describe what work, if any has been completed or underway for this project
Rehabilitation of four laterals and 320 linear-feet of main were completed in 2016 utilizing internal lining technology. Complete CCTV update inspection was performed in 2017 and repair locations were determined from the data. In 2018 the complete replacement of 54 laterals and 1,070 linear-feet of main was completed. 2019 work includes the replacement of aproximately 25 laterals and 1,100 linear feet of sewer main.

Annual Cost Impact	
Operating - Increase/(Decrease)	N/A
Debt Service	\$ -
<b>Net</b>	<b>\$ -</b>

Revenue Impact	
Gain/(Loss ) in Annual Revenue	N/A
Assessment, Contribution in Aid-of-Construction	N/A
Other	

Borrowing Information	
Interest Rate	5.5000%
Term (Years)	30

Explanation if Necessary
Reducing excess inflow/infiltration will reduce occurrence of overflows/bypasses at the wastewater treatment plant, facilitate continued compliance with PaDEP, and save staff time and money. It is difficult to quantify potential savings with varying intensity storms and fluctuating groundwater levels.

<b>Project No.</b>	SD-S-17
<b>Project Name</b>	HEIDELBERG HEIGHTS INFLOW & INFILTRATION INVESTIGATION & REMEDIATION PROGRAM

Estimated Project Costs :	
LCA Staff	\$ 120,000
Land Acquisition	\$ -
Construction/Equipment	\$ 1,000,000
Professional Services	\$ 30,000
Other	\$ -
Contingencies	\$ 200,000
<b>Total Project Cost</b>	<b>\$ 1,350,000</b>

Project Estimate Level	
	Conceptual Estimate
	Preliminary Estimate
	Budget Estimate
	Definitive Estimate

<b>Requested in this Capital Program</b>	<b>\$ 1,100,000</b>
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Source of Funds					
		Need	Source		
			Operating Revenues	Borrowing	Assessment, Contr.-in-Aid Reserves
2019 Budget		\$ 250,000			
1st Year	2020	\$ 250,000			\$ 250,000
2nd Year	2021	\$ 250,000			\$ 250,000
3rd Year	2022	\$ 250,000			\$ 250,000
4th Year	2023	\$ 250,000			\$ 250,000
5th Year	2024	\$ 100,000			\$ 100,000

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LEHIGH COUNTY AUTHORITY  
SUBURBAN DIVISION  
2020-2024 CAPITAL PROGRAM  
WASTEWATER

Project #	Name or Title of Proposal	(1) Pri- Type	Approval Stage (1)	Project Total Cost	This Capital Program							Project Category (1)	
					2019 <i>Budget Approved</i>	2020 Year 1	2021 Year 2	2022 Year 3	2023 Year 4	2024 Year 5	2020-2024 Total	Primary	Secondary
	<u>Operating/Capital Reserve Funds</u>												
	<u>Annual</u>												
SD-S-A	Annual Projects	Regular	A	\$ 2,265,000	\$ 414,500	\$ 387,500	\$ 295,500	\$ 295,500	\$ 329,500	\$ 542,500	\$ 1,850,500	AM - Varies	Efficiency
	<b>Subtotal</b>			<b>\$ 2,265,000</b>	<b>\$ 414,500</b>	<b>\$ 387,500</b>	<b>\$ 295,500</b>	<b>\$ 295,500</b>	<b>\$ 329,500</b>	<b>\$ 542,500</b>	<b>\$ 1,850,500</b>		
	<u>Pretreatment Plant</u>												
SD-S-22	Pretreatment Plant Improvements	Regular	A	\$ 4,200,000	\$ 700,000	\$ 700,000	\$ 700,000	\$ 700,000	\$ 700,000	\$ 700,000	\$ 3,500,000	AM - Varies	Sys Imp
	<b>Subtotal</b>			<b>\$ 4,200,000</b>	<b>\$ 700,000</b>	<b>\$ 700,000</b>	<b>\$ 700,000</b>	<b>\$ 700,000</b>	<b>\$ 700,000</b>	<b>\$ 700,000</b>	<b>\$ 3,500,000</b>		
	<u>Western Lehigh Interceptor</u>												
SD-S-3*	Central Lehigh County WW Capacity Planning & Expansion	Regular	V	\$ 150,000	\$ 50,000	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ 100,000	New Cust	Rev Opprt
SD-S-4*	Spring Creek Force Main Air/Vacuum Valve Replacements	Regular	V	\$ 255,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 200,000	Sys Imp	Efficiency
SD-S-9	Spring Creek Force Main Condition Assessment	Regular	P	\$ 300,000	\$ -	\$ 100,000	\$ 200,000	\$ -	\$ -	\$ -	\$ 300,000	AM-High	Sys Imp
	<b>Subtotal</b>			<b>\$ 705,000</b>	<b>\$ 90,000</b>	<b>\$ 240,000</b>	<b>\$ 240,000</b>	<b>\$ 40,000</b>	<b>\$ 40,000</b>	<b>\$ 40,000</b>	<b>\$ 600,000</b>		
	<u>Satellite Systems</u>												
SD-S-6*	Wynnewood I & I Investigation & Remediation Program	Regular	V	\$ 200,000	\$ 50,000	\$ 100,000	\$ 20,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 150,000	AM - Varies	Regulatory
SD-S-7*	Wynnewood Terrace WWTP Remediation & Replacement	Regular	V	\$ 4,010,000	\$ 2,000,000	\$ 1,670,000	\$ -	\$ -	\$ -	\$ -	\$ 1,670,000	AM - High	Efficiency
SD-S-8	Arcadia West WWTP Mechanical Screen	Regular	P	\$ 325,000	\$ -	\$ 50,000	\$ 250,000	\$ 25,000	\$ -	\$ -	\$ 325,000	Efficiency	Sys Imp
SD-S-10	Weisenberg Township, Lowhill Township, UMiT SSES	Regular	P	\$ 225,000	\$ -	\$ -	\$ -	\$ -	\$ 75,000	\$ 150,000	\$ 225,000	Regulatory	Sys Imp
SD-S-13*	Sand Spring WWTP Remediation & Replacement	Regular	S	\$ 3,363,000	\$ 800,000	\$ 2,400,000	\$ 110,000	\$ -	\$ -	\$ -	\$ 2,510,000	AM - High	Efficiency
SD-S-17*	Heidelberg Heights I & I Investigation & Remediation Program	Regular	V	\$ 1,700,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 100,000	\$ 1,100,000	AM - Varies	Regulatory
SD-S-18*	Heidelberg Heights WWTP Rehabilitation	Regular	P	\$ 566,000	\$ 40,000	\$ 150,000	\$ 20,000	\$ 40,000	\$ 200,000	\$ 100,000	\$ 510,000	AM - High	Efficiency
SD-S-25*	Lynn Township WWTP Upgrades & Expansion	Regular	D-Partial	\$ 4,255,000	\$ 20,000	\$ 173,000	\$ 174,000	\$ 1,944,000	\$ 1,944,000	\$ -	\$ 4,235,000	AM - High	Efficiency
SD-S-26*	Lynn Township I & I Investigation & Remediation Program	Regular	P	\$ 243,000	\$ 30,000	\$ 40,000	\$ 60,000	\$ 50,000	\$ 30,000	\$ 20,000	\$ 200,000	AM - High	Regulatory
	<b>Subtotal</b>			<b>\$ 14,887,000</b>	<b>\$ 3,190,000</b>	<b>\$ 4,833,000</b>	<b>\$ 884,000</b>	<b>\$ 2,319,000</b>	<b>\$ 2,509,000</b>	<b>\$ 380,000</b>	<b>\$ 10,925,000</b>		
	<u>Little Lehigh Relief Interceptor</u>												
SD-S-12	Park Pump Station Force Main Rehabilitation	AO	P	\$ 1,360,000	\$ 100,000	\$ 100,000	\$ 500,000	\$ 660,000	\$ -	\$ -	\$ 1,260,000	AM - High	Efficiency
SD-S-15*	Park Pump Station Rehabilitation/Improvements	AO	P	\$ 4,315,000	\$ 4,100,000	\$ 55,000	\$ -	\$ -	\$ -	\$ -	\$ 55,000	AM - High	Regulatory
SD-S-16	Regional Park Pump Station	AO	P	\$ 130,000	\$ -	\$ -	\$ 10,000	\$ 20,000	\$ 50,000	\$ 50,000	\$ 130,000	Regulatory	AM - High
	<b>Subtotal</b>			<b>\$ 5,805,000</b>	<b>\$ 4,200,000</b>	<b>\$ 155,000</b>	<b>\$ 510,000</b>	<b>\$ 680,000</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>	<b>\$ 1,445,000</b>		
	<b>SUBTOTAL OPERATING/CAPITAL RESERVE FUNDS</b>			<b>\$ 27,862,000</b>	<b>\$ 8,594,500</b>	<b>\$ 6,315,500</b>	<b>\$ 2,629,500</b>	<b>\$ 4,034,500</b>	<b>\$ 3,628,500</b>	<b>\$ 1,712,500</b>	<b>\$ 18,320,500</b>		
	<u>New Borrowing Funds</u>												
	<u>Western Lehigh Interceptor</u>												
SD-S-24*	Signatory I & I Investigation & Remediation Program	AO	V	\$ 4,060,000	\$ 500,000	\$ 500,000	\$ 1,610,000	\$ 1,060,000	\$ 75,000	\$ 75,000	\$ 3,320,000	Regulatory	Sys Imp
SD-S-28	WLI - Trexlertown Area Interceptor Upgrade	AO	P	\$ 14,400,000	\$ 100,000	\$ 300,000	\$ 900,000	\$ 5,000,000	\$ 8,000,000	\$ 100,000	\$ 14,300,000	Regulatory	Sys Imp
	<b>Subtotal</b>			<b>\$ 18,460,000</b>	<b>\$ 600,000</b>	<b>\$ 800,000</b>	<b>\$ 2,510,000</b>	<b>\$ 6,060,000</b>	<b>\$ 8,075,000</b>	<b>\$ 175,000</b>	<b>\$ 17,620,000</b>		
	<b>SUBTOTAL NEW BORROWING FUNDS</b>			<b>\$ 18,460,000</b>	<b>\$ 600,000</b>	<b>\$ 800,000</b>	<b>\$ 2,510,000</b>	<b>\$ 6,060,000</b>	<b>\$ 8,075,000</b>	<b>\$ 175,000</b>	<b>\$ 17,620,000</b>		
	<b>GRAND TOTAL (RESERVES + NEW BORROWING)</b>			<b>\$ 46,322,000</b>	<b>\$ 9,194,500</b>	<b>\$ 7,115,500</b>	<b>\$ 5,139,500</b>	<b>\$ 10,094,500</b>	<b>\$ 11,703,500</b>	<b>\$ 1,887,500</b>	<b>\$ 35,940,500</b>		

(1) Reference Glossary of Acronyms & Terms found immediately after the Table of Contents. All projects are LCA funded.

\*Includes 2018 authorizations for S-3, S-4, S-6, S-7, S-13, S-17, S-18, S-25, S-26, S-15, S-24



**LEHIGH COUNTY AUTHORITY  
SUBURBAN DIVISION  
WASTEWATER  
5-YEAR CAPITAL PLAN  
2020–2024**

**CAPITAL FINANCING JUSTIFICATION**

Capital additions to the Wastewater System are justified by calculating the operating cash available based upon projections of revenues over the five year period. Beyond the operating cash available, remaining sources are project reserves from previous debt issuance and any new borrowing required.

The table below summarizes the capital project sourcing by year and each major financial sourcing category:

<b>CAPITAL FINANCING SOURCES</b>						
	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>TOTAL</b>
Project Costs	\$7,115,500	\$5,139,500	\$10,094,500	\$11,703,500	\$1,887,500	\$35,940,500
<b><i>Sources of Funding:</i></b>						
Operating/Capital Reserves	\$6,315,500	\$2,629,500	\$4,034,500	\$3,628,500	\$1,712,500	\$18,320,500
New Borrowing	\$800,000	\$2,510,000	\$6,060,000	\$8,075,000	\$175,000	\$17,620,000
<b>TOTAL FUNDING</b>	<b>\$7,115,500</b>	<b>\$5,139,500</b>	<b>\$10,094,500</b>	<b>\$11,703,500</b>	<b>\$1,887,500</b>	<b>\$35,940,500</b>

Total spending on capital projects for the five-year period totals \$35,940,500. Operating and capital reserves over the period will provide \$18,320,500 for capital projects. New borrowing in the amount of \$17,620,000 will provide the remaining funding required.

The \$17,620,000 of new borrowing will provide funding for AO projects in WLI group. The annual debt service on that borrowing of \$1,183,453 annually will be collected from the signatories in the WLI group. The new debt service will cause a significant increase in rates to the WLI group for year 2020.

Rates will also be impacted by inflation for both the WLI group along with other users of the system. Rate increases by year to support the capital plan are as follows:

Year 2020	12.4%
Year 2021	2.6%
Year 2022	1.5%
Year 2023	2.7%
Year 2024	2.7%

**CONDENSED CASH FLOW - SUBURBAN WASTEWATER**

Dollars	2020	2021	2022	2023	2024
User Charges	16,754,434.00	17,192,295.00	17,443,292.00	17,907,819.00	18,386,281.00
Other Operating Revenues	-	-	-	-	-
Non-Operating Revenues	925,750.00	951,243.00	977,501.00	1,004,546.00	1,032,402.00
Operating expenses	(12,390,378.65)	(12,762,089.90)	(13,144,953.29)	(13,539,301.50)	(13,945,480.42)
Debt Service - Current Debt	(684,476.00)	(684,476.00)	(684,476.00)	(684,476.00)	(684,476.00)
Debt Service - NEW Debt	(1,183,453.00)	(1,183,453.00)	(1,183,453.00)	(1,183,453.00)	(1,183,453.00)
Investments Converting to Cash	-	-	-	3,000,000.00	-
Proceeds From NEW Debt	17,620,000.00	-	-	-	-
Capex - Admin Paygo	(350,000.00)	(250,000.00)	(225,000.00)	(187,500.00)	(137,500.00)
Capex - Paygo	(6,315,500.00)	(2,629,500.00)	(4,034,500.00)	(3,628,500.00)	(1,712,500.00)
Capex - NEW Borrowing	(800,000.00)	(2,510,000.00)	(6,060,000.00)	(8,075,000.00)	(175,000.00)
<b>NET FUND FLOWS</b>	<b>13,576,376.35</b>	<b>(1,875,980.90)</b>	<b>(6,911,589.29)</b>	<b>(4,885,865.50)</b>	<b>1,580,273.58</b>
User Charge Revenue Increase %	12.4%	2.6%	1.5%	2.7%	2.7%
Operating Cash Balance	6,261,189	6,474,708	6,582,619	6,787,754	6,993,027
Days on Hand	184	185	183	183	183
Project Reserve Balance	14,294,170	12,204,670	5,185,170	94,170	1,469,170
DEBT SERVICE COVERAGE RATIO	2.83	2.88	2.82	2.88	2.93

Sourcing of Projects and Debt Service related to various systems is as follows:

<b>BY SYSTEM</b>	<b>PROJECTS</b>	<b>TOTAL</b>	<b>OPERATING/CAPITAL RESERVES</b>	<b>NEW DEBT</b>
Annual Projects	SA	\$1,850,500	\$1,850,500	-
Western Lehigh Interceptor	S3, S4, S9, S24, S28	\$18,220,000	\$600,000	\$17,620,000
LCA Wastewater Treatment Plant	S22	\$3,500,000	\$3,500,000	-
Satellite Systems	S6, S7, S8, S10, S13, S17, S18, S25, S26	\$10,925,000	\$10,925,000	-
Little Lehigh Relief Interceptor System	S12, S15, S16	\$1,445,000	\$1,445,000	-
	<b>TOTAL</b>	<b>\$35,940,500</b>	<b>\$18,320,500</b>	<b>\$17,620,000</b>



## RESOLUTION NO. 3-2019-1

(Duly adopted 25 March 2019)

***A RESOLUTION AUTHORIZING THE NEGOTIATION OF COST REIMBURSEMENT FROM THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION AS A RESULT OF UTILITY RELOCATIONS FOR THE RAPID BRIDGE REPLACEMENT IMPROVEMENT PROJECT OF STATE ROUTE 0145 (ROUTE 145) LOCATED IN THE CITY OF ALLENTOWN NEAR THE INTERSECTION OF MARTIN LUTHER KING, JR. DRIVE AND LEHIGH STREET.***

WHEREAS, Lehigh County Authority ("Authority") is a municipal authority formed pursuant to the Municipality Authorities Act to provide sewer and water and services in the Lehigh Valley, including pursuant to the *Allentown Water and Sewer Utility Concession and Lease Agreement* dated as of 1 May 2013 (the "Concession Agreement") whereby the Authority leases the sewer and water systems in the City of Allentown and is responsible for all aspects of operation of the systems; and

WHEREAS, the Pennsylvania Department of Transportation ("PennDot") is designing and will construct a rapid bridge replacement project in regard to a bridge on State Route 0309, MPMS 94682 SR 0145-08B B, located in the City of Allentown in Lehigh County (the "Project") in the Authority's service area; and

WHEREAS, construction of the Project will cause the relocation of Authority sewer and water facilities at various locations in the Project, some of which are presently in public rights-of-way and are shown on the attached map; and

WHEREAS, PennDot has requested the Authority to relocate such facilities outside of the public rights-of-way, but has not determined to what extent it will reimburse the Authority for the cost of doing so; and

WHEREAS, the parties are in the process of negotiating the terms of such reimbursement;

NOW THEREFORE, the Authority, pursuant to the powers granted it and in accordance with the requirements of the PennDOT Design Manual - Part 5, §8.01, does hereby authorize the submission of the attached request for PennDOT to provide a seventy-five per centum (75%) reimbursement to the Authority for all costs, less any betterments, incurred in relocating its public sewer and water system facilities affected by PennDOT project MPMS 94682 (SR 0145, Section 08B) in Lehigh County. Furthermore, the Chief Executive Officer, Chief Financial Officer or Chief Capital Works Officer of the Authority are authorized to sign the attached Agreement on its behalf and also, that the Solicitor or

Human Resources Manager are authorized to attest the Chief Executive Officer's, Chief Financial Officer's or Chief Capital Works Officer's signature on the reimbursable utility agreement for this bridge replacement project.

On motion of \_\_\_\_\_, seconded by \_\_\_\_\_, this Resolution was adopted the 25<sup>th</sup> day of March 2019.



I, Bradford E. Landon, Solicitor of Lehigh County Authority, do hereby certify that the foregoing is a true, correct and complete copy of a resolution which was duly adopted by the Authority at a public meeting of the Authority held on 25 March 2019, after notice thereof had been duly given as required by law, at which meeting a quorum was present and voting and which Resolution No. 3-2019-1 is now in full force and effect on the date of this certification.

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Bradford E. Landon  
Solicitor



1053 SPRUCE ROAD \* P.O. BOX 3348 \* ALLENTOWN, PA 18106-0348  
610-398-2503 \* FAX 610-398-8413 \* [www.lehighcountyauthority.org](http://www.lehighcountyauthority.org)  
email: [JacobHunsicker@lehighcountyauthority.org](mailto:JacobHunsicker@lehighcountyauthority.org)

March 25, 2019

Dave Rader  
Utility Relocation Administrator  
Pennsylvania Department of Transportation  
Engineering District 5-0  
1002 Hamilton Street  
Allentown, PA 18101

RE: State Route 0145, Section 08B  
MPMS No. 94682  
City of Allentown, Lehigh County  
Cost Sharing Request for Incorporated Work  
(Pilot 1)

Dear Mr. Rader:

This correspondence is submitted in accordance with Chapter 8.1.C of Design Manual Part 5, Utility Relocation, for referral to the Secretary of Transportation.

The proposed Highway Improvement Project of State Route 0145, Section 08B, located in the City of Allentown, Lehigh County, requires the relocation and/or adjustment of certain water and sewer system facilities serving the City of Allentown. The Lehigh County Authority (LCA) operates and maintains these facilities under a concession and lease agreement with the City of Allentown. These facilities are presently located in public right-of-way.

It is understood that the cost of relocating and/or adjusting our facilities in the public right-of-way is normally at our expense, but that under the provisions of Section 412.1 of the Act of June 1, 1945, P.L. 1242, as amended (36 P.S. §670-412.1), the Secretary of Transportation may determine that the Department will share in such cost.

Accordingly, it is hereby requested that the Department of Transportation share in the cost of the relocation and/or adjustment of our water and sewer system facilities.

LCA hereby offers to pay twenty-five per centum (25%) of the actual cost to relocate and/or adjust our water and sewer system facilities presently located in public right-of-way, provided

the Department of Transportation will share in the balance of the actual cost thereof, less any betterments.

Furthermore, LCA hereby agrees to execute an Agreement prepared by the Department of Transportation with such terms and conditions as the Secretary may deem necessary and advisable.

If the Secretary of Transportation accepts our offer and determines that the Department will share in seventy-five per centum (75%), LCA hereby agrees to provide the information by the accelerated dates listed below:

- The justification for utility impacts and cost sharing letter offer to cost share/resolution, no later than the agreed upon date of **April 12, 2019**.
- The utility relocation plans, specifications, and estimate/agreement package, no later than the agreed upon date of **June 8, 2019**.
- The signed agreement to the Department, no later than the agreed upon date of **July 26, 2019**.

LCA recognizes and accepts that failure to meet the above-stated milestones may result in the Department reducing its share to zero per centum (0%) of the actual cost to relocate and/or adjust our water and sewer system facilities. However, if LCA can recover from a missed milestone date without delaying the project letting, the Department will still cost share for 25%.

Attached hereto and made a part hereof is a certified Resolution of the LCA Board of Directors authorizing the within offer.

Sincerely,

Attest:

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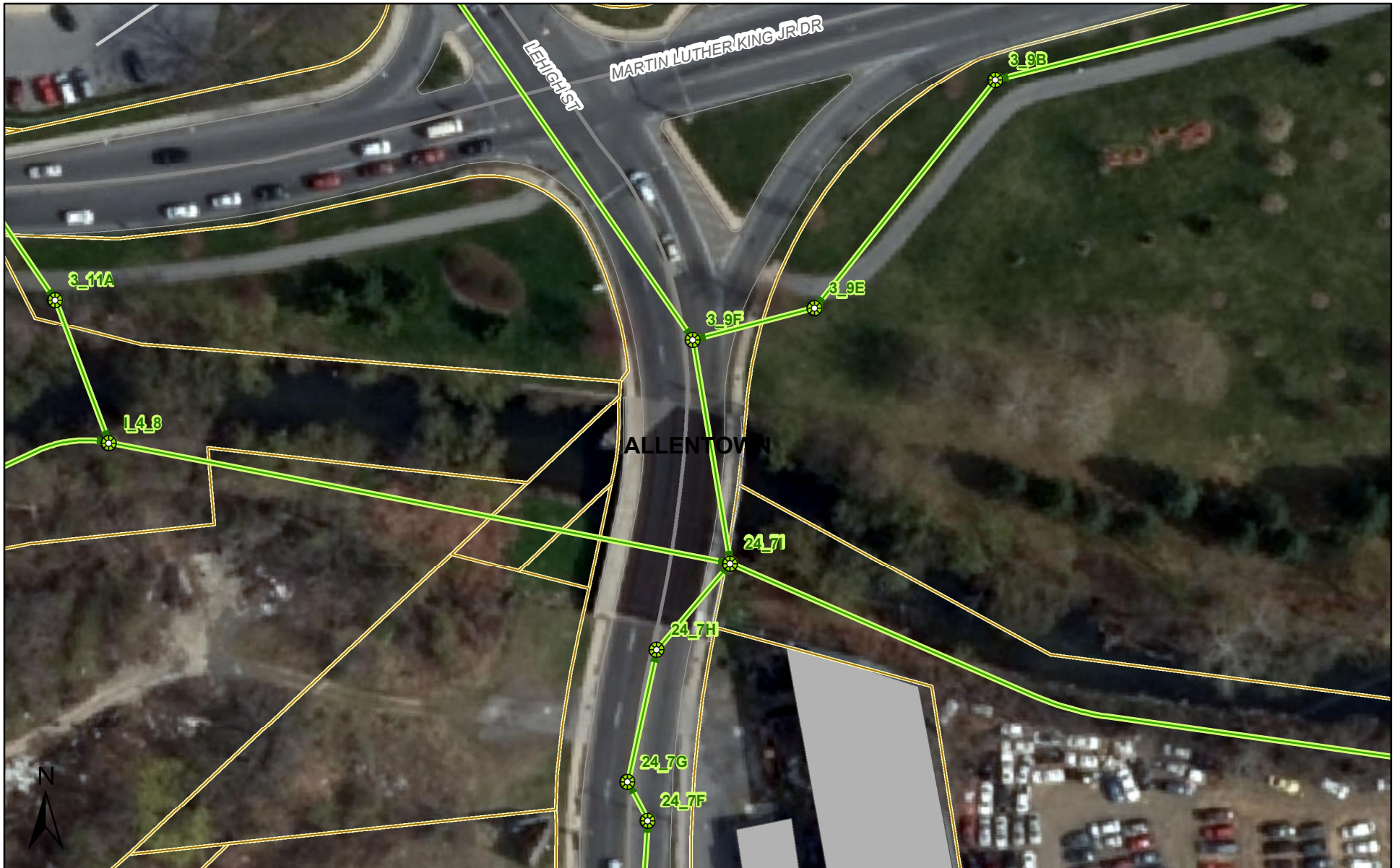
Bradford E. Landon  
Solicitor

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Charles E. Volk  
Chief Capital Works Officer

SEAL

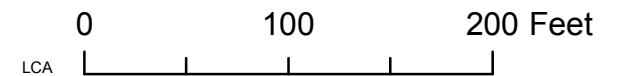
# LCA GIS MAP



March 14, 2019

- |                          |                    |                     |
|--------------------------|--------------------|---------------------|
| COA Sanitary Manhole IDs | Major Roads        | Municipality Names  |
| COA Sanitary Manhole     | Road Edge          | Municipalities      |
| COA Sanitary Main        | Street Names       | Parcels             |
|                          | Street Centerlines | Building Footprints |

1 inch = 94 feet



**FINANCE & ADMINISTRATION****ACTION ITEMS****1. Information Technology Master Plan – March 25, 2019**

LCA is kicking off a master plan for the information technology infrastructure for LCA. The project will have a 3<sup>rd</sup> party technology company evaluate LCA's current technology status and recommend a path moving forward in regards to security, server maintenance, desktop lifecycle, future enhancements, and more. This project is a 2019 IT initiative, with funds included in the 2019 capital budget, with projects resulting from the planning effort expected to be implemented over the next 5 years. Board approval for the capital project authorization and professional services authorization will be requested at the March 25, 2019 meeting.

**2. Final Draft Capital Plan (2020-2024) – All Divisions – March 25, 2019**

Following presentation of the Authority's draft Capital Plans for 2020-2024 to the Board of Directors in January and February 2019, a 30-day public comment period was offered and the draft plans submitted to various agencies and municipalities. A packet has been prepared for Board consideration detailing the comments received and the changes made to the plan. This represents the Final Draft of the LCA Capital Plan for 2020-2024, and the Board is requested to approve the Plan at the March 25, 2019 meeting.

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

Fund	Bank	Location	Gross Amount	Date of Purchase	Date Due	Net Rate %
WW Capac	Texas Trust CU	Mansfield, TX	245,000.00	2/21/19	2/22/19	2.800

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:

5354 Hamilton Blvd., 1 commercial lot, LMT – No Change  
 Fields at Indian Creek, Phase 3, 57 residential units (sfd), UMiIT/Emmaus, water & sewer – No Change  
 Kohler Tract, 123 residential lots (sfa), UMiIT, water and sewer – No Change  
 Lower Macungie Twp. Community Center Expansion, 1 institutional lot, LMT – No Change  
 Trexler Business Center, 1 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:

5329-5347-5357 Hamilton Blvd., 1 commercial lot, LMT – No Change  
5374/5392 Hamilton Blvd., 1 commercial lot, LMT – No Change  
8615/8783 Congdon Hill Drive, 2 industrial lots with warehouses, LMT – No Change  
Air Products & Chemicals (New Headquarters), 1 commercial lot, LMT/UMT  
Cedarbrook Road Industrial Park, 2 industrial lots, LMT – No Change  
Hidden Meadows, Phase 1C, 66 townhouses, UMT – No Change  
Lehigh Hills, Lot 5, Phase 1, 273 apartments & clubhouse, UMT – No Change  
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  
Mill Creek Hotel, 1 commercial lot with 205 room hotel & restaurant, UMT  
Ridings at Parkland, 63 residential units (sfd), NWT – No Change  
Schoeneck Road, Lot 1, 1 lot warehouse, LMT – No Change  
Stone Hill Meadows, Phase 2, 85 residential units (sfd), LMT – No Change  
Towneplace Suites by Marriott, 91-room hotel, UMT – No Change  
Weilers Road Twins, 82 residential lots (sfa), UMT – No Change  
Woodmont Ridge, Phase II, 30 apartment units, UMT – No Change

Sewage Planning Modules Reviewed in Prior Month:

Mountain View Estates, LMT, 6,021 gpd.

## WATER

### ACTION ITEMS

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### DISCUSSION ITEMS

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### INFORMATION ITEMS

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1. **Allentown Division – Hamilton Street Cedar Creek Bridge Water Main Relocation Project**

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 water main. The construction phase was approved at the December 2016 Board meeting and the construction phase at the January 2018 meeting. As of February 22, 2018, the contractor has completed a majority of the relocation work for LCA's facilities; however, they were pulled off the site due to construction conflicts. It is anticipated at this time the contractor will return in early March 2019 to finish all of the LCA line relocation. 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.

2. **Allentown Division – Water Main Replacement Program Cycle 4**

The project is the replacement of 0.97-mile of aged and/or failing cast iron water main in multiple locations throughout the City, in accordance with our prioritization protocol. We propose to utilize the 1.1 mile credit of excess water main replacement length accumulated from previous years in order to satisfy the 2.0 miles of annual pipe replacement as outlined in the lease. This Project is required under the Operating Standards in the Concession Agreement and will be funded by the LCA Allentown Division. The reduced-scale project was re-bid following rejection of the bids for the original 2.2 mile project. The project was authorized by the Board on 9/10/18 and will be completed by December 2018. As of October 30, 2018 or contractor Doli Construction Corp has begun water main installation and is progressing. As of January 4, 2019 all water main construction, prelease valve and meter replacement has been completed. LCA anticipates paving restoration to begin in late April 2019. **(No Change)**

3. **Allentown Division – Water Main Replacement Program Cycle 5**

The project is the replacement of 2-mile of aged and/or failing cast iron water main in multiple locations throughout the City, in accordance with our prioritization protocol. Currently Gannett Fleming is designing the 2-miles of required water main replacement. At this time, the construction phase of this project is not budgeted for unless monies become available in early 2019. **(No Change)**

4. **Allentown Division – Water Filtration Plant: SCADA System Replacement**

The project consists of the replacement of the existing SCADA System at the Water Filtration Plant. The purchase and installation of new servers, new control panel cabinets, new cabling, and new programming software will encompass this project. Board approval to purchase this equipment was granted at the August 27, 2018 Board Meeting. Replacement will be completed by late 2019. This project will be funded by LCA Allentown Division. **(No Change)**

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

The project consists of the addition of a carbon dioxide feed system at the Allentown Water Plant. With the present conversion from alum to polyaluminum chloride (PACl) as the plant's primary coagulant, proper treatment requires the raw water to be kept within a very small pH range for optimum treatment. The acid feed system will control pH within tight parameters to achieve treatment goals. A Major Permit Application was submitted to PaDEP. Approval for the construction phase was granted at the October 8, 2018 Board meeting. Construction of the pad



and piping began on 11/26/2018 and work has progressed to the point of punch list items. All work should be completed by early March. The contract with Matheson to supply the storage tank and CO2 has been finalized and the tank and delivery system is to be installed by late March or early April. The CO2 system is expected to be on-line by the end of April, 2019. This project will be funded by the LCA Allentown Division.

**6. Suburban Division - Water Main Replacement Program Cycle 4**

The project consists of the replacement of approximately 1.36 miles of aged and/or failing Cast Iron water main throughout multiple location in the Suburban Division. The LCA Suburban Division will fund the project. The project bids were opened on July 18, 2018 and project authorization was awarded at the 7/23/18 board meeting. As of early December 2018 the project has been completed and LCA is awaiting final closeout documentation from our contractor that we should be obtaining by mid-March 2019.

**7. Suburban Division - Water Main Replacement Program Cycle 5**

The project consists of the replacement of approximately 1.25 miles of aged and/or failing Cast Iron water main throughout multiple location in the Suburban Division. The LCA Suburban Division will fund the project. Currently the project is under design by Gannett Fleming with an anticipation of placing it out for bid in early March 2019. **(No Change)**

**8. Suburban Division – Mechanical Asset Management Upgrade Project**

This next phase of Asset Management upgrade work focuses on mechanical components, along with some HVAC and electrical system improvements at ten locations in the Suburban Division. The upgrade locations were determined from asset management data collected from internal interviews conducted by Capital Works with senior Operations staff, and based on risk rating. Also as part of the design phase of this project was the condition assessment of seven (7) hydropneumatic tanks that were placed into service in the 1970s and are reaching the end of their service lives. Design phase was authorized in April 2018, the project was advertised for bid in September 2018, bids were opened on October 11, 2018, and award of bids was authorized at the October 22, 2018 Board meeting. Construction will be finished by Summer 2019. **(No Change)**

**9. 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 interconnect the Central Lehigh Division (CLD) with the Upper Milford Division (UMD) allowing the abandonment of the UMD water supply facilities, and to provide water service to the proposed 123-lot Kohler Tract subdivision in Upper Milford Township. Design of the pump station is under way. The Public Water Supply (PWS) permit has been issued by DEP. Two property owners have granted waterline easements. The Kern Tract was acquired for the pumping station at the end of January. Easement Agreements are being prepared for the two remaining permanent waterline easements. The pumping station contract documents are being finalized for bidding in March.

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

The project consists of installation of a new booster pumping station with SCADA and water main extension to pump water from the Lower Pressure System to the Upper Pressure System. The LCA Suburban Division will fund the project. Bids for the project were received on 6/29/18. Board approval for the construction phase of the project was granted at the 7/23/18 meeting. A preconstruction meeting was held on August 28<sup>th</sup> and construction should be completed by Fall of 2019.

**11. 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 include radon reduction elements and also accommodate the future installation of additional radon removal equipment, to be implemented upon DEP's mandate of a regulatory limit. Design phase was authorized at the August 28, 2017 Board meeting. The Public Water Supply Permit was received from DEP at the end of December 2018. Zoning approval from Upper Milford is needed for a "Special Exception" use for the upgrade project, as LCA is not the original water company and as such is not "grandfathered". Bid phase is expected to occur the second quarter of 2019, following zoning approval.

**12. 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 AI Guiseppe (SSM, Inc.) in 2017. Flow monitoring in 2018 will focus on the Little Lehigh Creek only. In 2019, LCA will develop plans to add new monitoring wells to supplement existing groundwater data that is being collected. Total daily flow recordings at Schantz Spring that will need to include the spring field bypass and the tank overflows as well. SSM will assist LCA in calibrating surface flows under the bridges based on the recorded stream elevations. Authorization for the award of the project was approved at the 3/26/2018 Board meeting. LCA and Fybr are currently gaining PennDOT and PPL approvals that will allow us to mount our equipment on their bridges and poles, which has turned out to be a very slow process. We are still awaiting a response from PPL. **(No change)**

**13. Suburban Division – Water Meter Reading Equipment Upgrade**

The Project includes the replacement of 20,000 transceiver units. 10,000 units will be replaced in 2019 and the remaining will be replaced in 2020. The new units have a 20-year battery life and are compatible with the new meter reading software purchased in 2017. This project will replace approximately 100% of the remaining old style radio units over a two-year period. The project is in design phase and will be put out to bid in early 2019. **(No Change)**

**14. Suburban Division - Additional (Redundant) Water Supply - Small Satellite Divisions**

This Project addresses the needs of three satellite water systems that currently are operating on one source of supply and have no redundant water supply. The Madison Park North system has only one well, and an additional well is planned to be developed and constructed. The Clear View Farms and Mill Creek systems have one operating well each, but have at least one other existing well that has water supply or quality issues and cannot be presently utilized. An engineer has been retained to assist with the development of a second well for Madison Park North and the rehabilitation of an existing well at Clear View Farms. An agreement is in place with an adjoining property owner to Madison Park North to drill a test well on their property, in coordination with DEP guidelines. The exploratory well was drilled in early January 2019, and the preliminary well yield data supports pursuing a "step drawdown test" which will determine permanent safe well yield based on aquifer monitoring **(No Change)**.

## WASTEWATER

### ACTION ITEMS

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### DISCUSSION ITEMS

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### INFORMATION ITEMS

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1. **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. The 30% design drawings and specifications have been received. The City has now directed to “pause” the design phase of the project as the EPA is scheduled to provide further AO direction. **(No Change)**

2. **Allentown Division – Kline’s Island WWTP Master Plan**

This project involves the 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 will include Condition Assessments, Process Optimizations, and both short-term and long-term Capital Improvement 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 for the wastewater system. A Request for Proposal (RFP) was released to five (5) qualified firms on 12/15/2017 and the proposal due date was 1/26/2018. Authorization for the award of the contract was approved at the 3/12/2018 Board meeting. A kickoff meeting was held on May 24, 2018. Data collection and site assessments have been completed. Condition Assessment, Process Optimization and Capital Plan Workshops have been conducted. The Capital Plan Section, as well as the entire Master Plan Project, are to be completed in Q1 2019. A presentation to the Board was given on February 25, 2019. This project will be funded by LCA Allentown Division.

3. **Allentown Division – Kline’s Island WWTP: Electrical Substation Replacement**

This project involves the replacement of the existing Substation 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. The project was advertised in early May 2018 and bids were due on June 8, 2018. Approval of the construction contract (Base Bid) was granted at the July 9, 2018 Board Meeting. The construction phase of the project began in August of 2018 and will be completed by October 2019. This Major Capital Project will be funded by the LCA Allentown Division. **(No Change)**

4. **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 finished by Summer 2017. Additional scope work under existing contract has been performed and is anticipated to be closed out in early 2019. **(No Change)**

5. **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. The project is substantially complete and startup is scheduled for February 27, 2019.

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

The Park Pump Station and Force Main line 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 internal investigation of the pipe is required to assess the condition of the PCCP pipe and identify damage areas, in order 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 planning a limited manned inspection of the force main pipe at 5 air release valve (ARV) locations, 100 feet in both directions from the ARV manhole, which will be used as the initial evaluation of the representative condition of the pipe. Using this data, the need for performing a complete pipeline condition assessment will be determined, possibly utilizing a new electromagnetic technology for performing an internal pipe condition assessment that entails minimal interruption of operation of the pump station and force main. LCA and Arcadis are currently waiting for a "normal flow" dry weather period to use the PTP Flow Equalization Basin (FEB) at the pretreatment plant to hold back flow in order to perform a temporary shut-down of the Park Pump Station to perform the force main inspection. **(No Change)**

7. **Suburban Division – Park Pump Station Upgrade**

The Park Pump Station is to be upgraded to address mitigate risk of failure, restore station capacity, 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 2017, pre-bid meeting was held on 1/4/18, and bids were opened 2/1/18. Construction phase was authorized at the 2/12/18 Board meeting. Notice to proceed for the construction contracts was issued dated 3/26/18. A pre-construction meeting was conducted in early April 2018, and construction is anticipated to be completed by Summer 2019. **(No Change)**

8. **Suburban Division – Heidelberg Heights Wastewater Treatment Plant Improvements**

As part of an asset management approach to maintaining the level of service and mitigating risk of failure at the Heidelberg Heights Wastewater Treatment Plant, a condition assessment evaluation is being performed for the Equalization/Sludge Holding tank. The steel tank is part of the original plant, installed in the mid-1970s, and is compartmentalized to serve as both a raw sewage equalization tank (for sequenced pumping to the newer SBR tanks), and for storing liquid sludge (for pump and haul removal). The exposed portions of this tank display areas of corrosion, and the tank was drained and cleaned and a thorough assessment was performed to determine structural integrity and remaining service life, and a study provided to LCA. Design phase services will be completed in early 2019 for a structural improvements project to be constructed in 2019. **(No Change)**

9. **Suburban Division – Wynnewood WWTP Upgrade Project**

Wynnewood Terrace WWTP was constructed in 1980 by the developer to serve the Wynnewood Terrace subdivision, located in the Laury's Station area in North Whitehall

Township. Sewer service is provided to approximately 217 residential and 2 commercial properties. LCA acquired the system in 2003.

The plant, while meeting effluent limits, has reached the end of its useful life. The plant is constructed of in-ground steel tanks that are in poor condition, with areas of corrosion and loss of structural integrity. The mechanical and electrical systems are also at the end of their service life and in need of replacement. The proposed project includes replacement of the existing treatment facility in entirety with new technology and concrete tanks appropriate for the wastewater flows and loading characteristics. The new facility shall meet the effluent limits criteria established in the respective DEP and DRBC permits, including new or additional limits that may be imposed during the permitting process. Design phase was authorized in February 2017 and was concluded in late Summer 2018. The DEP Part 2 Water Quality Management Permit was received in March 2018. The project was advertised for bid in August 2018, bids were opened in September 2018, and bids were authorized for award at the October 22, 2018 Board meeting. Construction work will proceed in 2019 and finish in early 2020. **(No Change)**

**10. Suburban Division – Sand Spring WWTP Upgrade Project**

The Sand Spring WWTP was constructed in 1972 by the developer to serve the Sand Spring development, located in the Schnecksville area in North Whitehall Township. Sewer service is provided to approximately 248 apartment units, 8 commercial properties, and an elementary school. Lehigh County Authority (LCA) acquired the system in 2005.

The plant, while meeting effluent limits, has reached the end of its useful life. The plant is constructed of in-ground steel tanks that are in poor condition, with areas of corrosion and loss of structural integrity. The mechanical and electrical systems are also at the end of their service life and in need of replacement. The proposed project includes replacement of the existing treatment facility in entirety with new technology and concrete tanks appropriate for the wastewater flows and loading characteristics. The new facility shall meet the effluent limits criteria established in the respective DEP and DRBC permits, including new or additional limits that may be imposed during the permitting process. Design phase was authorized in February 2017 and should be concluded by late 2018; progress has been delayed due to DEP permitting issues. DEP approval of the Water Quality Management Permit was received in late December 2018, and the project will proceed to bid phase in Q1 of 2019. **(No Change)**

**11. Suburban Division – SCARP**

Please see item 14 below for an update on the EPA Administrative Order (AO) status. For the Western Lehigh Sewerage Partnership, the closeout of the AO has no significant impact as the group remains committed to implementing the SCARP plan including inflow and infiltration source removal and conveyance capacity improvements to address dry-day and wet-weather flows for current and future customers. Additional project information is being developed to share with DEP within the next two months, with a presentation to the LCA Board following receipt of DEP feedback on the Western Lehigh Interceptor capital improvements that will be recommended.

**12. Sanitary Sewer System Flow Metering for WLI**

The installation of the 35 flow meters began in mid-December and was completed in January. It takes approximately one month to resolve metering issues and have confidence in the meter data. All meters will be installed and operating properly by the end of February. Data validation is ongoing so that useful data should begin to be available in April.

**13. WLI High Flow Emergency Declaration**

LCA began the Emergency Response protocol to deal with the high flows within the Western Lehigh Interceptor (WLI) on November 28, 2018. The Emergency Declaration was presented to and approved by the Board on December 10, 2018. Through December 28, 2018, the entire Iron

Run Trunk Line (IRTL) has been televised from outside the Pretreatment Plant (PTP) down to the confluence with the Breinigsville Line, which is south of Hamilton Boulevard. This area is referred to as Phase I and the total distance televised in this reach was 7,115', and includes 93 manholes. In this section, LCA has identified 18 defects within that reach, the majority of which are joint leaks, along with heavy sediment in several areas. Once repaired, staff expects to have eliminated approximately 500,000 gallons per day of infiltration from the interceptor based on estimates. Repair work will begin while additional downstream inspection is ongoing. Phase II will include the interceptor from where the IRTL and the Breinigsville lines meet down to the Spring Creek Pump Station. Phase III will be the interceptor from Spring Creek Pump Station down to Meter Station 5. A pre-bid meeting was held for Phase I on 1/29/2019 and bids were due on 2/15/2019. The Phase I construction contract will be awarded in early March. This project will continue on an expedited emergency basis as long as conditions warrant.

**14. USEPA Administrative Order – Sanitary Sewer Overflows – Update**

On March 11, 2019, EPA issued a letter stating that the requirements of the Administrative Order (AO) to eliminate sanitary sewer overflows have been met and the AO is therefore closed out. In August 2018, LCA joined the City of Allentown and 13 other municipalities to prepare and submit a regional flow management strategy (RFMS) to address the requirements of the AO. The RFMS included the following critical elements as requested by EPA: collection system operation and maintenance plan, system characterization, inflow and infiltration (I&I) source removal, flow modeling, and flow targets. In its letter accepting the RFMS and closing out the AO, EPA noted that oversight for the RFMS would fall to the Pa. Department of Environmental Protection (DEP) for ongoing enforcement oversight of the program through the Chapter 94 regulations.

On December 21, 2018, LCA and all of the municipalities named in the AO received a detailed letter from DEP requesting additional information about the RFMS including more specifics related to schedules for system characterization, sewer flow metering and monitoring, and other details related to each municipality's operations and maintenance program and inflow and infiltration source removal program. LCA led the effort to develop a full response to DEP, which was submitted on March 8, 2019. Among the commitments made by the municipalities in the response to DEP included submission of RFMS updates and information on system hydraulic restrictions within the annual Chapter 94 submissions, and other schedule commitments related to system characterization work, sewer flow metering and monitoring.

**15. Suburban Division - Heidelberg Heights and Lynn Township Sewer System Updates**

Excessive inflow and infiltration (I&I) and high wet-weather flows into the Heidelberg Heights and Lynn Township sewer systems have been ongoing and increasingly challenging to address. As noted in LCA's monthly operations report, treatment plant bypasses and sanitary sewer overflows have occurred more frequently in these systems and must be addressed. Staff has developed corrective action plans (CAPs) that include structural and non-structural initiatives and involves coordination with the host municipality. The framework for the CAPs was shared with the Board in February and will be developed further for submission to DEP.

**16. Allentown Division - PennDOT Rapid Bridge Replacement Project**

This is PennDOT project consists of replacing the bridge on Lehigh Street at the intersection of Lehigh Street and Martin Luther King Drive. There are numerous City-owned water and sanitary sewer lines in this area. Along with our contracted engineer for this project (Gannett Fleming), we have worked to minimize the impact on LCA-operated water and sewer infrastructure. After reviewing and commenting on initial PennDOT plans (which were revised by PennDOT), the sole unavoidable utility relocation is for the 12" sanitary sewer main that follows Lehigh Street and is located directly below the bridge (longitudinally). This relocation is defined as a "complex project" according to Penn DOT, which qualifies it for a 75% reimbursement rate. Therefore LCA will be responsible for 25% of the utility relocation costs. Gannett Fleming is currently

working with LCA on a design plan for the sanitary sewer mains and manholes that will be relocated. LCA must meet Penn DOT's assigned key deadline date of April 12, 2018 to submit the executed form, "Cost Sharing Request for Incorporated Work", and adopted resolution in order to be eligible for reimbursement.

**LEHIGH COUNTY AUTHORITY  
FINANCIAL STATEMENTS  
FEBRUARY 2019**



LEHIGH COUNTY AUTHORITY  
FINANCIAL STATEMENTS - SUMMARY  
FEBRUARY 2019

MONTH					YEAR-TO-DATE					FULL YEAR				
Actual	Forecast	Prior Year	FC Var	PY Var	FEBRUARY 2019					Forecast	Budget	Prior Year	Bud Var	PY Var
					<b>Income Statement</b>									
(68,606)	(77,294)	(51,428)	8,688	(17,178)	Suburban Water	12,749	(57,588)	42,496	70,337	(29,747)	236,452	236,452	(51,208)	- 287,660
260,495	(76,282)	(114,860)	336,777	375,355	Suburban Wastewater	262,742	(135,015)	(98,759)	397,757	361,501	(969,731)	(969,731)	(658,072)	- (311,659)
117,339	(123,449)	(316,995)	240,788	434,334	City Division	(335,630)	(619,898)	(584,389)	284,268	248,759	(4,036,377)	(4,036,377)	(6,009,928)	- 1,973,551
309,228	(277,025)	(483,282)	586,253	792,510	Total LCA	(60,139)	(812,501)	(640,652)	752,362	580,513	(4,769,656)	(4,769,656)	(6,719,208)	- 1,949,552
					<b>Cash Flow Statement</b>									
616,986	(295,194)	1,189,224	912,180	(572,238)	Suburban Water	1,000,467	(493,388)	592,502	1,493,855	407,965	(2,378,358)	(2,378,358)	4,418,568	- (6,796,926)
(1,920,136)	(3,089,354)	1,165,183	1,169,218	(3,085,319)	Suburban Wastewater	(2,438,987)	(3,661,159)	1,728,056	1,222,172	(4,167,043)	(3,026,596)	(3,026,596)	3,082,460	- (6,109,056)
1,288,878	979,599	1,368,075	309,279	(79,197)	City Division	1,633,811	1,286,198	1,060,002	347,613	573,809	2,127,423	2,127,423	3,907,778	- (1,780,355)
(14,271)	(2,404,949)	3,722,482	2,390,678	(3,736,753)	Total LCA	195,291	(2,868,349)	3,380,560	3,063,640	(3,185,269)	(3,277,531)	(3,277,531)	11,408,805	- (14,686,336)
					<b>Debt Service Coverage Ratio</b>									
1.08	1.03	1.30	0.04	(0.23)	Suburban Water	1.39	1.21	1.60	0.17	(0.21)	1.40	1.40	1.18	- 0.21
12.08	5.60	5.52	6.48	6.56	Suburban Wastewater	9.64	5.75	6.71	3.89	2.93	5.52	5.52	6.50	- (0.98)
1.57	1.49	1.47	0.08	0.10	City Division	1.41	1.37	1.49	0.04	(0.08)	1.37	1.37	1.59	- (0.22)

LEHIGH COUNTY AUTHORITY  
MONTHLY FINANCIAL STATEMENTS - CONSOLIDATED  
FEBRUARY 2019

MONTH					YEAR-TO-DATE				FULL YEAR FORECAST			
Suburban Water	Suburban Wastewater	City Division	LCA TOTAL		Suburban Water	Suburban Wastewater	City Division	LCA TOTAL	Suburban Water	Suburban Wastewater	City Division	LCA TOTAL
				FEBRUARY 2019 INCOME STATEMENT								
				<b>Operating Revenues</b>								
678,497	1,577,553	3,121,855	5,377,905	Charges For Services	1,501,849	2,832,324	5,973,217	10,307,390	9,772,570	14,905,873	37,022,206	61,700,649
11,088	-	-	11,088	Rent	21,583	-	-	21,583	87,860	-	-	87,860
1,711	-	71,943	73,654	Other Income	6,080	-	86,589	92,669	129,158	-	567,706	696,864
691,296	1,577,553	3,193,798	5,462,647	Total Operating Revenues	1,529,512	2,832,324	6,059,806	10,421,642	9,989,588	14,905,873	37,589,912	62,485,373
				<b>Operating Expenses</b>								
76,867	51,311	436,907	565,085	Salaries and Wages	161,029	81,739	864,051	1,106,819	1,020,940	420,095	5,653,796	7,094,831
103,122	36,459	521,046	660,627	General and Administrative	219,375	106,853	1,095,978	1,422,206	1,399,959	474,363	6,407,601	8,281,923
36,707	38,786	166,833	242,325	Utilities	70,667	62,532	350,456	483,655	592,750	338,035	2,095,255	3,026,040
20,916	50,866	80,605	152,387	Materials and Supplies	32,082	56,401	117,727	206,210	504,580	459,324	1,597,216	2,561,120
213,690	479,243	138,213	831,147	Miscellaneous Services	381,470	1,055,346	172,920	1,609,736	2,905,325	7,688,121	1,988,845	12,582,291
-	300,000	-	300,000	Treatment & Transportation	-	500,000	-	500,000	-	2,649,555	12,000	2,661,555
229,166	383,527	490,000	1,102,693	Depreciation and Amortization	458,332	767,054	980,000	2,205,386	2,750,000	4,540,765	5,880,000	13,170,765
680,468	1,340,192	1,833,604	3,854,265	Total Operating Expenses	1,322,955	2,629,925	3,581,132	7,534,012	9,173,554	16,570,258	23,634,713	49,378,525
10,827	237,361	1,360,193	1,608,382	<b>Operating Income</b>	206,557	202,399	2,478,674	2,887,630	816,034	(1,664,385)	13,955,199	13,106,848
				<b>Non-Operating Revenues (Expenses)</b>								
8,470	15,317	12,095	35,882	Tapping and Capital Recovery fees	15,125	31,856	12,095	59,076	467,000	800,000	324,000	1,591,000
7,360	-	3,983	11,343	Meter Sales	11,415	-	6,011	17,426	108,000	-	12,000	120,000
500	-	4,000	4,500	Inspection and Plan Reviews	1,435	-	4,000	5,435	144,000	25,000	207,000	376,000
-	-	-	-	Project Reimbursements	-	-	-	-	-	-	1,645,000	1,645,000
17,049	21,014	113,072	151,135	Interest Income	29,393	46,101	113,072	188,566	144,000	75,000	400,000	619,000
12,566	9,132	3,780	25,478	Other Income	15,716	20,765	8,025	44,506	24,000	1,000	22,000	47,000
(130,427)	(14,803)	(1,365,932)	(1,511,163)	Interest Expense	(266,811)	(28,981)	(2,926,516)	(3,222,308)	(1,466,582)	(206,346)	(18,956,576)	(20,629,504)
5,050	(7,526)	(13,852)	(16,328)	Other Expense	(81)	(9,398)	(30,991)	(40,470)	-	-	(1,645,000)	(1,645,000)
(79,433)	23,134	(1,242,854)	(1,299,154)	Total Non-Operating Revenues (Expenses)	(193,808)	60,343	(2,814,304)	(2,947,769)	(579,582)	694,654	(17,991,576)	(17,876,504)
(68,606)	260,495	117,339	309,228	<b>Net Income Before Capital Contributions</b>	12,749	262,742	(335,630)	(60,139)	236,452	(969,731)	(4,036,377)	(4,769,656)
-	-	-	-	<b>Capital Contributions</b>	-	-	-	-	-	-	-	-
(68,606)	260,495	117,339	309,228	<b>NET INCOME</b>	12,749	262,742	(335,630)	(60,139)	236,452	(969,731)	(4,036,377)	(4,769,656)

LEHIGH COUNTY AUTHORITY  
MONTHLY FINANCIAL STATEMENTS - CONSOLIDATED  
FEBRUARY 2019

MONTH				YEAR-TO-DATE				FULL YEAR FORECAST				
Suburban Water	Suburban Wastewater	City Division	LCA TOTAL	FEBRUARY 2019 CASH FLOW STATEMENT	Suburban Water	Suburban Wastewater	City Division	LCA TOTAL	Suburban Water	Suburban Wastewater	City Division	LCA TOTAL
				Cash Flows From Operating Activities								
691,296	1,577,553	3,193,798	5,462,647	Operating Revenues	1,529,512	2,832,324	6,059,806	10,421,642	9,989,588	14,905,873	37,589,912	62,485,373
(451,302)	(956,665)	(1,343,604)	(2,751,572)	Operating Expenses (ex D&A)	(864,623)	(1,862,871)	(2,601,132)	(5,328,626)	(6,423,554)	(12,029,493)	(17,754,713)	(36,207,760)
58,393	1,340,740	(543,541)	855,592	Non-Cash Working Capital Changes	(581,405)	(1,206,771)	(1,728,072)	(3,516,248)	-	-	-	-
298,386	1,961,628	1,306,652	3,566,667	Net Cash Provided by (Used in) Operating Activities	83,484	(237,318)	1,730,602	1,576,768	3,566,034	2,876,380	19,835,199	26,277,613
				Cash Flows From Financing Activities								
-	-	-	-	Lease Payments to City	-	-	-	-	-	-	-	-
-	-	-	-	Capital Contributions	-	-	-	-	-	-	-	-
(5,048)	(14,215)	(0)	(19,264)	Proceeds New Borrowing	(16,054)	(28,981)	(5,348)	(50,383)	(1,466,582)	(206,346)	(14,956,576)	(16,629,504)
(29,969)	(40,944)	-	(70,913)	Interest Payments	(59,884)	(81,815)	-	(141,699)	(1,725,120)	(478,130)	-	(2,203,250)
(35,018)	(55,159)	(0)	(90,177)	Principal Payments	(75,938)	(110,796)	(5,348)	(192,082)	(3,191,702)	(684,476)	(14,956,576)	(18,832,754)
(70,035)	(110,318)	(0)	(180,353)	Net Cash Provided by (Used in) Financing Activities	(151,876)	(221,592)	(10,696)	(384,164)	(6,383,404)	(1,368,952)	(29,913,152)	(37,665,508)
				Cash Flows from Capital and Related Activities								
-	-	-	-	Non-Operating Revenues	-	-	-	-	-	-	1,645,000	1,645,000
5,131	-	-	5,131	Project Reimbursement	-	-	-	-	-	-	(516,200)	(516,200)
(117,295)	(112,595)	(154,704)	(384,594)	Non-Operating Expenses	(195,000)	(184,740)	(234,646)	(614,386)	(10,210,540)	(9,619,500)	(4,845,000)	(24,675,040)
(83,268)	(88,146)	(130,846)	(302,260)	Capital Expenditures	(151,309)	(132,119)	(204,515)	(487,943)	(9,467,540)	(8,793,500)	(3,151,200)	(21,412,240)
(195,432)	(200,741)	(285,550)	(681,723)	Net Cash Provided By (Used In) Capital and Related Activities	(346,309)	(316,859)	(439,161)	(1,102,329)	(19,678,080)	(18,413,000)	(6,867,400)	(44,958,480)
				Cash Flows From Investing Activities								
(449,413)	(3,759,473)	-	(4,208,886)	Investments Converting To Cash	(449,413)	(3,759,473)	-	(4,208,886)	-	-	-	-
17,049	21,014	113,072	151,135	Purchased Invesments	29,393	46,101	113,072	188,566	144,000	75,000	400,000	619,000
436,886	(3,738,459)	113,072	(3,188,501)	Interest Income	1,144,230	(1,958,754)	113,072	(701,452)	6,714,850	3,575,000	400,000	10,689,850
4,521	(7,476,918)	226,144	(7,246,253)	Net Cash Provided By (Used In) Investing Activities	724,210	(5,672,126)	226,144	(4,721,772)	6,858,850	3,650,000	800,000	11,308,850
37,440	(5,826,349)	1,247,246	(4,541,662)	FUND NET CASH FLOWS	309,509	(6,447,895)	1,506,889	(4,631,497)	(15,636,600)	(13,255,572)	(16,145,353)	(45,037,525)
				DEBT SERVICE RATIO								
285,938	666,351	1,952,194	2,904,482	Total Cash Available For Debt Service	737,973	1,068,175	3,525,172	5,331,320	4,453,034	3,777,380	20,421,285	28,651,699
265,975	55,159	1,246,381	1,567,515	Debt Service	531,950	110,796	2,492,762	3,135,508	3,191,702	684,476	14,956,576	18,832,754
1.08	12.08	1.57	1.85	DSCR	1.39	9.64	1.41	1.70	1.40	5.52	1.37	1.52

LEHIGH COUNTY AUTHORITY  
FINANCIAL STATEMENTS - SUBURBAN WATER  
FEBRUARY 2019

MONTH					FEBRUARY 2019					YEAR-TO-DATE					FULL YEAR				
Actual	Forecast	Prior Yr	FC Var	PY Var	INCOME STATEMENT					Actual	Forecast	Prior Yr	FC Var	PY Var	Forecast	Budget	Prior Yr	Bud Var	PY Var
					<b>Operating Revenues</b>														
678,497	677,381	638,773	1,116	39,724	Charges For Services					1,501,849	1,491,762	1,421,855	10,087	79,994	9,772,570	9,772,570	9,089,776	-	682,794
11,088	7,322	7,027	3,766	4,061	Rent					21,583	14,644	7,027	6,939	14,556	87,860	87,860	91,546	-	(3,686)
1,711	763	4,705	948	(2,994)	Other Income					6,080	11,526	7,206	(5,446)	(1,126)	129,158	129,158	113,101	-	16,057
691,296	685,466	650,505	5,830	40,791	Total Operating Revenues					1,529,512	1,517,932	1,436,088	11,580	93,424	9,989,588	9,989,588	9,294,423	-	695,165
					<b>Operating Expenses</b>														
76,867	85,078	84,884	8,211	8,016	Salaries and Wages					161,029	170,156	179,017	9,127	17,988	1,020,940	1,020,940	1,035,186	-	14,246
103,122	96,663	113,402	(6,459)	10,280	General and Administrative					219,375	213,326	229,173	(6,049)	9,798	1,399,959	1,399,959	1,258,634	-	(141,325)
36,707	39,396	34,900	2,689	(1,807)	Utilities					70,667	88,792	81,512	18,125	10,845	592,750	592,750	437,255	-	(155,495)
20,916	42,048	16,448	21,132	(4,468)	Materials and Supplies					32,082	84,096	29,606	52,014	(2,476)	504,580	504,580	294,619	-	(209,961)
213,690	222,110	147,929	8,420	(65,761)	Miscellaneous Services					381,470	464,220	282,442	82,750	(99,028)	2,905,325	2,905,325	2,771,668	-	(133,657)
-	-	-	-	-	Treatment & Transportation					-	-	-	-	-	-	-	-	-	-
229,166	229,167	245,832	1	16,666	Depreciation and Amortization					458,332	458,334	491,664	2	33,332	2,750,000	2,750,000	2,949,984	-	199,984
680,468	714,462	643,395	33,994	(37,073)	Total Operating Expenses					1,322,955	1,478,924	1,293,413	155,969	(29,542)	9,173,554	9,173,554	8,747,345	-	(426,209)
10,827	(28,996)	7,110	39,823	3,717	<b>Operating Income</b>					206,557	39,008	142,675	167,549	63,882	816,034	816,034	547,078	-	268,956
					<b>Non-Operating Revenues (Expenses)</b>														
8,470	38,917	5,840	(30,447)	2,630	Tapping and Capital Recovery fees					15,125	77,834	19,870	(62,709)	(4,745)	467,000	467,000	221,405	-	245,595
7,360	9,000	3,677	(1,640)	3,683	Meter Sales					11,415	18,000	8,664	(6,585)	2,751	108,000	108,000	85,259	-	22,741
500	12,000	5,881	(11,500)	(5,382)	Inspection and Plan Reviews					1,435	24,000	8,381	(22,565)	(6,946)	144,000	144,000	180,579	-	(36,579)
-	-	-	-	-	Project Reimbursements					-	-	-	-	-	-	-	(0)	-	0
17,049	12,000	8,648	5,049	8,401	Interest Income					29,393	24,000	32,029	5,393	(2,636)	144,000	144,000	222,022	-	(78,022)
12,566	2,000	960	10,566	11,606	Other Income					15,716	4,000	3,870	11,716	11,846	24,000	24,000	30,205	-	(6,205)
(130,427)	(122,215)	(83,544)	(8,212)	(46,884)	Interest Expense					(266,811)	(244,430)	(172,993)	(22,381)	(93,818)	(1,466,582)	(1,466,582)	(1,334,604)	-	(131,978)
5,050	-	-	5,050	5,050	Other Expense					(81)	-	-	(81)	(81)	-	-	(3,152)	-	3,152
(79,433)	(48,298)	(58,538)	(31,135)	(20,896)	Total Non-Operating Revenues (Expenses)					(193,808)	(96,596)	(100,179)	(97,212)	(93,629)	(579,582)	(579,582)	(598,286)	-	18,704
(68,606)	(77,294)	(51,428)	8,688	(17,178)	<b>Net Income Before Capital Contributions</b>					12,749	(57,588)	42,496	70,337	(29,747)	236,452	236,452	(51,208)	-	287,660
-	-	-	-	-	<b>Capital Contributions</b>					-	-	-	-	-	-	-	-	-	-
(68,606)	(77,294)	(51,428)	8,688	(17,178)	<b>NET INCOME</b>					12,749	(57,588)	42,496	70,337	(29,747)	236,452	236,452	(51,208)	-	287,660

LEHIGH COUNTY AUTHORITY  
FINANCIAL STATEMENTS - SUBURBAN WATER  
FEBRUARY 2019

MONTH					FEBRUARY 2019					YEAR-TO-DATE					FULL YEAR				
Actual	Forecast	Prior Yr	FC Var	PY Var	CASH FLOW STATEMENT					Actual	Forecast	Prior Yr	FC Var	PY Var	Forecast	Budget	Prior Yr	Bud Var	PY Var
					<b>Cash Flows From Operating Activities</b>														
691,296	685,466	650,505	5,830	40,791	Operating Revenues					1,529,512	1,517,932	1,436,088	11,580	93,424	9,989,588	9,989,588	9,294,423	-	695,165
(451,302)	(485,295)	(397,563)	33,993	(53,739)	Operating Expenses (ex D&A)					(864,623)	(1,020,590)	(801,749)	155,967	(62,874)	(6,423,554)	(6,423,554)	(5,797,361)	-	(626,193)
58,393	-	1,213,753	58,393	(1,155,360)	Non-Cash Working Capital Changes					(581,405)	-	(1,571,991)	(581,405)	990,586	-	-	(240,756)	-	240,756
298,386	200,171	1,466,695	98,215	(1,168,309)	Net Cash Provided by (Used in) Operating Activities					83,484	497,342	(937,652)	(413,858)	1,021,136	3,566,034	3,566,034	3,256,306	-	309,728
					<b>Cash Flows From Financing Activities</b>														
-	-	-	-	-	Capital Contributions					-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	Proceeds New Borrowing					-	-	-	-	-	-	-	-	-	-
(5,048)	(122,215)	(83,544)	117,167	78,495	Interest Payments					(16,054)	(244,430)	(172,993)	228,376	156,939	(1,466,582)	(1,466,582)	(1,508,149)	-	41,567
(29,969)	(143,760)	(129,666)	113,791	99,697	Principal Payments					(59,884)	(287,520)	(268,809)	227,636	208,925	(1,725,120)	(1,725,120)	(2,076,353)	-	351,233
(35,018)	(265,975)	(213,209)	230,957	178,192	Net Cash Provided by (Used in) Financing Activities					(75,938)	(531,950)	(441,802)	456,012	365,864	(3,191,702)	(3,191,702)	(3,584,502)	-	392,800
					<b>Cash Flows from Capital and Related Activities</b>														
28,896	61,917	16,358	(33,021)	12,537	Non-Operating Revenues					43,691	123,834	40,785	(80,143)	2,906	743,000	743,000	517,448	-	225,552
-	-	-	-	-	Project Reimbursement					-	-	-	-	-	-	-	(0)	-	0
5,131	-	-	5,131	5,131	Non-Operating Expenses					-	-	-	-	-	-	-	5,089	-	(5,089)
(117,295)	(850,878)	(89,268)	733,583	(28,027)	Capital Expenditures					(195,000)	(1,701,756)	(122,868)	1,506,756	(72,132)	(10,210,540)	(10,210,540)	(5,348,970)	-	(4,861,570)
(83,268)	(788,961)	(72,910)	705,693	(10,359)	Net Cash Provided By (Used In) Capital and Related Activities					(151,309)	(1,577,922)	(82,083)	1,426,613	(69,226)	(9,467,540)	(9,467,540)	(4,826,433)	-	(4,641,107)
					<b>Cash Flows From Investing Activities</b>														
869,250	547,571	-	321,679	869,250	Investments Converting To Cash					1,564,250	1,095,142	2,022,010	469,108	(457,760)	6,570,850	6,570,850	17,125,196	-	(10,554,346)
(449,413)	-	-	(449,413)	(449,413)	Purchased Investments					(449,413)	-	-	(449,413)	(449,413)	-	-	(7,774,021)	-	7,774,021
17,049	12,000	8,648	5,049	8,401	Interest Income					29,393	24,000	32,029	5,393	(2,636)	144,000	144,000	222,022	-	(78,022)
436,886	559,571	8,648	(122,685)	428,238	Net Cash Provided By (Used In) Investing Activities					1,144,230	1,119,142	2,054,039	25,088	(909,809)	6,714,850	6,714,850	9,573,197	-	(2,858,347)
616,986	(295,194)	1,189,224	912,180	(572,238)	<b>FUND NET CASH FLOWS</b>					1,000,467	(493,388)	592,502	1,493,855	407,965	(2,378,358)	(2,378,358)	4,418,568	-	(6,796,926)
					<b>DEBT SERVICE RATIO</b>														
285,938	274,088	277,948	11,850	7,989	Total Cash Available For Debt Service					737,973	645,176	707,153	92,797	30,820	4,453,034	4,453,034	4,236,532	-	216,502
265,975	265,975	213,209	-	52,766	Debt Service					531,950	531,950	441,802	-	90,148	3,191,702	3,191,702	3,584,502	-	(392,800)
1.08	1.03	1.30	0.04	(0.23)	<b>DSCR</b>					1.39	1.21	1.60	0.17	(0.21)	1.40	1.40	1.18	-	0.21

LEHIGH COUNTY AUTHORITY  
FINANCIAL STATEMENTS - SUBURBAN WATER  
FEBRUARY 2019

FORECAST VARIANCES - MONTH

INCOME STATEMENT	Actual	Forecast	Variance	Comments
<b>Operating Revenues</b>				
Charges For Services	678,497	677,381	1,116	
Rent	11,088	7,322	3,766	
Other Income	1,711	763	948	
Total Operating Revenues	691,296	685,466	5,830	No major variances
<b>Operating Expenses</b>				
Salaries and Wages	76,867	85,078	8,211	
General and Administrative	103,122	96,663	(6,459)	
Utilities	36,707	39,396	2,689	
Materials and Supplies	20,916	42,048	21,132	Due to timing as spending is slower than forecast
Miscellaneous Services	213,690	222,110	8,420	
Treatment & Transportation	-	-	-	
Depreciation and Amortization	229,166	229,167	1	
Total Operating Expenses	680,468	714,462	33,994	
<b>Operating Income</b>	10,827	(28,996)	39,823	
<b>Non-Operating Revenues (Expenses)</b>				
Tapping and Capital Recovery fees	8,470	38,917	(30,447)	Lower tapping fees
Meter Sales	7,360	9,000	(1,640)	
Inspection and Plan Reviews	500	12,000	(11,500)	
Project Reimbursements	-	-	-	
Interest Income	17,049	12,000	5,049	
Other Income	12,566	2,000	10,566	
Interest Expense	(130,427)	(122,215)	(8,212)	
Other Expense	5,050	-	5,050	
Total Non-Operating Revenues (Expenses)	(79,433)	(48,298)	(31,135)	
<b>Net Income Before Capital Contributions</b>	(68,606)	(77,294)	8,688	
<b>Capital Contributions</b>	-	-	-	
<b>NET INCOME</b>	(68,606)	(77,294)	8,688	

FORECAST VARIANCES - MONTH

CASH FLOW STATEMENT	Actual	Forecast	Variance	Comments
<b>Cash Flows From Operating Activities</b>				
Operating Revenues	691,296	685,466	5,830	
Operating Expenses (ex D&A)	(451,302)	(485,295)	33,993	
Non-Cash Working Capital Changes	58,393	-	58,393	Favorable working capital movements not forecast
Net Cash Provided by (Used in) Operating Activities	298,386	200,171	98,215	
<b>Cash Flows From Financing Activities</b>				
Capital Contributions	-	-	-	
Proceeds New Borrowing	-	-	-	
Interest Payments	(5,048)	(122,215)	117,167	Due to timing
Principal Payments	(29,969)	(143,760)	113,791	Due to timing
Net Cash Provided by (Used in) Financing Activities	(35,018)	(265,975)	230,957	
<b>Cash Flows from Capital and Related Activities</b>				
Non-Operating Revenues	28,896	61,917	(33,021)	Lower tapping fees
Project Reimbursement	-	-	-	
Non-Operating Expenses	5,131	-	5,131	
Capital Expenditures	(117,295)	(850,878)	733,583	Due to timing
Net Cash Provided By (Used In) Capital and Related Activities	(83,268)	(788,961)	705,693	
<b>Cash Flows From Investing Activities</b>				
Investments Converting To Cash	869,250	547,571	321,679	Net conversion of \$419k
Purchased Investments	(449,413)	-	(449,413)	
Interest Income	17,049	12,000	5,049	
Net Cash Provided By (Used In) Investing Activities	436,886	559,571	(122,685)	
<b>FUND NET CASH FLOWS</b>	616,986	(295,194)	912,180	Lower capex and favorable timing difference on debt service

LEHIGH COUNTY AUTHORITY  
FINANCIAL STATEMENTS - SUBURBAN WASTEWATER  
FEBRUARY 2019

MONTH					FEBRUARY 2019					YEAR-TO-DATE					FULL YEAR				
Actual	Forecast	Prior Yr	FC Var	PY Var	INCOME STATEMENT					Actual	Forecast	Prior Yr	FC Var	PY Var	Forecast	Budget	Prior Yr	Bud Var	PY Var
					<b>Operating Revenues</b>														
1,577,553	1,259,236	1,200,221	318,317	377,332	Charges For Services					2,832,324	2,508,472	2,296,197	323,852	536,127	14,905,873	14,905,873	16,777,260	-	(1,871,387)
-	-	-	-	-	Rent					-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	Other Income					-	-	-	-	-	-	-	-	-	-
1,577,553	1,259,236	1,200,221	318,317	377,332	Total Operating Revenues					2,832,324	2,508,472	2,296,197	323,852	536,127	14,905,873	14,905,873	16,777,260	-	(1,871,387)
					<b>Operating Expenses</b>														
51,311	50,008	27,986	(1,303)	(23,324)	Salaries and Wages					81,739	85,016	60,865	3,277	(20,874)	420,095	420,095	460,904	-	40,809
36,459	44,531	32,892	8,072	(3,567)	General and Administrative					106,853	109,062	67,945	2,209	(38,908)	474,363	474,363	490,478	-	16,115
38,786	28,170	19,946	(10,616)	(18,840)	Utilities					62,532	56,340	42,985	(6,192)	(19,548)	338,035	338,035	290,197	-	(47,838)
50,866	48,278	6,552	(2,588)	(44,314)	Materials and Supplies					56,401	86,556	10,196	30,155	(46,205)	459,324	459,324	265,176	-	(194,148)
479,243	498,225	530,492	18,982	51,248	Miscellaneous Services					1,055,346	1,098,901	1,021,191	43,555	(34,155)	7,688,121	7,688,121	7,549,847	-	(138,274)
300,000	295,796	359,560	(4,204)	59,560	Treatment & Transportation					500,000	516,592	487,370	16,592	(12,630)	2,649,555	2,649,555	4,519,146	-	1,869,591
383,527	378,397	397,865	(5,130)	14,338	Depreciation and Amortization					767,054	756,794	795,370	(10,260)	28,676	4,540,765	4,540,765	4,774,380	-	233,615
1,340,192	1,343,405	1,375,293	3,213	35,101	Total Operating Expenses					2,629,925	2,709,261	2,486,281	79,336	(143,644)	16,570,258	16,570,258	18,350,129	-	1,779,871
237,361	(84,169)	(175,072)	321,530	412,433	<b>Operating Income</b>					202,399	(200,789)	(190,085)	403,188	392,484	(1,664,385)	(1,664,385)	(1,572,870)	-	(91,515)
					<b>Non-Operating Revenues (Expenses)</b>														
15,317	16,667	76,554	(1,350)	(61,237)	Tapping and Capital Recovery fees					31,856	83,334	124,756	(51,478)	(92,900)	800,000	800,000	902,732	-	(102,732)
-	-	-	-	-	Meter Sales					-	-	-	-	-	-	-	-	-	-
-	2,083	-	(2,083)	-	Inspection and Plan Reviews					-	4,166	-	(4,166)	-	25,000	25,000	36,898	-	(11,898)
-	-	-	-	-	Project Reimbursements					-	-	-	-	-	-	-	-	-	-
21,014	6,250	234	14,764	20,780	Interest Income					46,101	12,500	481	33,601	45,620	75,000	75,000	219,054	-	(144,054)
9,132	83	90	9,049	9,042	Other Income					20,765	166	120	20,599	20,645	1,000	1,000	1,565	-	(565)
(14,803)	(17,196)	(16,665)	2,393	1,862	Interest Expense					(28,981)	(34,392)	(34,031)	5,411	5,050	(206,346)	(206,346)	(197,000)	-	(9,346)
(7,526)	-	-	(7,526)	(7,526)	Other Expense					(9,398)	-	-	(9,398)	(9,398)	-	-	(48,452)	-	48,452
23,134	7,887	60,213	15,247	(37,079)	Total Non-Operating Revenues (Expenses)					60,343	65,774	91,326	(5,431)	(30,983)	694,654	694,654	914,797	-	(220,143)
260,495	(76,282)	(114,860)	336,777	375,355	<b>Net Income Before Capital Contributions</b>					262,742	(135,015)	(98,759)	397,757	361,501	(969,731)	(969,731)	(658,072)	-	(311,659)
-	-	-	-	-	<b>Capital Contributions</b>					-	-	-	-	-	-	-	-	-	-
260,495	(76,282)	(114,860)	336,777	375,355	<b>NET INCOME</b>					262,742	(135,015)	(98,759)	397,757	361,501	(969,731)	(969,731)	(658,072)	-	(311,659)

LEHIGH COUNTY AUTHORITY  
FINANCIAL STATEMENTS - SUBURBAN WASTEWATER  
FEBRUARY 2019

MONTH					FEBRUARY 2019					YEAR-TO-DATE					FULL YEAR				
Actual	Forecast	Prior Yr	FC Var	PY Var	CASH FLOW STATEMENT					Actual	Forecast	Prior Yr	FC Var	PY Var	Forecast	Budget	Prior Yr	Bud Var	PY Var
					<b>Cash Flows From Operating Activities</b>														
1,577,553	1,259,236	1,200,221	318,317	377,332	Operating Revenues					2,832,324	2,508,472	2,296,197	323,852	536,127	14,905,873	14,905,873	16,777,260	-	(1,871,387)
(956,665)	(965,008)	(977,428)	8,343	20,763	Operating Expenses (ex D&A)					(1,862,871)	(1,952,467)	(1,690,551)	89,596	(172,320)	(12,029,493)	(12,029,493)	(13,575,749)	-	1,546,256
1,340,740	1,200,000	967,416	140,740	373,324	Non-Cash Working Capital Changes					(1,206,771)	(1,300,000)	200,857	93,229	(1,407,628)	-	-	76,879	-	(76,879)
1,961,628	1,494,228	1,190,209	467,400	771,419	Net Cash Provided by (Used in) Operating Activities					(237,318)	(743,995)	806,502	506,677	(1,043,820)	2,876,380	2,876,380	3,278,389	-	(402,009)
					<b>Cash Flows From Financing Activities</b>														
-	-	-	-	-	Capital Contributions					-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	Proceeds New Borrowing					-	-	-	-	-	-	-	-	-	-
(14,215)	(17,196)	(14,216)	2,981	1	Interest Payments					(28,981)	(34,392)	(28,908)	5,411	(74)	(206,346)	(206,346)	(171,690)	-	(34,656)
(40,944)	(39,844)	(40,081)	(1,100)	(863)	Principal Payments					(81,815)	(79,688)	(80,093)	(2,127)	(1,722)	(478,130)	(478,130)	(499,265)	-	21,135
(55,159)	(57,040)	(54,297)	1,881	(862)	Net Cash Provided by (Used in) Financing Activities					(110,796)	(114,080)	(109,000)	3,284	(1,796)	(684,476)	(684,476)	(670,956)	-	(13,520)
					<b>Cash Flows from Capital and Related Activities</b>														
24,449	18,833	76,644	5,616	(52,195)	Non-Operating Revenues					52,621	87,666	124,876	(35,045)	(72,255)	826,000	826,000	941,195	-	(115,195)
-	-	-	-	-	Project Reimbursement					-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	Non-Operating Expenses					-	-	-	-	-	-	-	4,585	-	(4,585)
(112,595)	(801,625)	(47,606)	689,030	(64,989)	Capital Expenditures					(184,740)	(903,250)	(74,803)	718,510	(109,937)	(9,619,500)	(9,619,500)	(2,740,221)	-	(6,879,279)
(88,146)	(782,792)	29,038	694,646	(117,184)	Net Cash Provided By (Used In) Capital and Related Activities					(132,119)	(815,584)	50,073	683,465	(182,192)	(8,793,500)	(8,793,500)	(1,794,442)	-	(6,999,058)
					<b>Cash Flows From Investing Activities</b>														
-	-	-	-	-	Investments Converting To Cash					1,754,618	1,750,000	980,000	4,618	774,618	3,500,000	3,500,000	3,615,209	-	(115,209)
(3,759,473)	(3,750,000)	-	(9,473)	(3,759,473)	Purchased Investments					(3,759,473)	(3,750,000)	-	(9,473)	(3,759,473)	-	-	(1,564,795)	-	1,564,795
21,014	6,250	234	14,764	20,780	Interest Income					46,101	12,500	481	33,601	45,620	75,000	75,000	219,054	-	(144,054)
(3,738,459)	(3,743,750)	234	5,291	(3,738,693)	Net Cash Provided By (Used In) Investing Activities					(1,958,754)	(1,987,500)	980,481	28,746	(2,939,235)	3,575,000	3,575,000	2,269,468	-	1,305,532
<u>(1,920,136)</u>	<u>(3,089,354)</u>	<u>1,165,183</u>	<u>1,169,218</u>	<u>(3,085,319)</u>	<b>FUND NET CASH FLOWS</b>					<u>(2,438,987)</u>	<u>(3,661,159)</u>	<u>1,728,056</u>	<u>1,222,172</u>	<u>(4,167,043)</u>	<u>(3,026,596)</u>	<u>(3,026,596)</u>	<u>3,082,460</u>	<u>-</u>	<u>(6,109,056)</u>
					<b>DEBT SERVICE RATIO</b>														
666,351	319,311	299,670	347,040	366,681	Total Cash Available For Debt Service					1,068,175	656,171	731,003	412,004	337,172	3,777,380	3,777,380	4,361,760	-	(584,380)
55,159	57,040	54,297	(1,881)	862	Debt Service					110,796	114,080	109,000	(3,284)	1,796	684,476	684,476	670,956	-	13,520
<u>12.08</u>	<u>5.60</u>	<u>5.52</u>	<u>6.48</u>	<u>6.56</u>	<b>DSCR</b>					<u>9.64</u>	<u>5.75</u>	<u>6.71</u>	<u>3.89</u>	<u>2.93</u>	<u>5.52</u>	<u>5.52</u>	<u>6.50</u>	<u>-</u>	<u>(0.98)</u>



LEHIGH COUNTY AUTHORITY  
FINANCIAL STATEMENTS - SUBURBAN WASTEWATER  
FEBRUARY 2019

FORECAST VARIANCES - MONTH

INCOME STATEMENT	Actual	Forecast	Variance	Comments
<b>Operating Revenues</b>				
Charges For Services	1,577,553	1,259,236	318,317	Higher penalty charges
Rent	-	-	-	
Other Income	-	-	-	
Total Operating Revenues	1,577,553	1,259,236	318,317	
<b>Operating Expenses</b>				
Salaries and Wages	51,311	50,008	(1,303)	
General and Administrative	36,459	44,531	8,072	
Utilities	38,786	28,170	(10,616)	
Materials and Supplies	50,866	48,278	(2,588)	
Miscellaneous Services	479,243	498,225	18,982	Lower maintenance spending
Treatment & Transportation	300,000	295,796	(4,204)	
Depreciation and Amortization	383,527	378,397	(5,130)	
Total Operating Expenses	1,340,192	1,343,405	3,213	
<b>Operating Income</b>	237,361	(84,169)	321,530	
<b>Non-Operating Revenues (Expenses)</b>				
Tapping and Capital Recovery fees	15,317	16,667	(1,350)	
Meter Sales	-	-	-	
Inspection and Plan Reviews	-	2,083	(2,083)	
Project Reimbursements	-	-	-	
Interest Income	21,014	6,250	14,764	Higher invested balances
Other Income	9,132	83	9,049	
Interest Expense	(14,803)	(17,196)	2,393	
Other Expense	(7,526)	-	(7,526)	
Total Non-Operating Revenues (Expenses)	23,134	7,887	15,247	
<b>Net Income Before Capital Contributions</b>	260,495	(76,282)	336,777	
<b>Capital Contributions</b>	-	-	-	
<b>NET INCOME</b>	260,495	(76,282)	336,777	

FORECAST VARIANCES - MONTH

CASH FLOW STATEMENT	Actual	Forecast	Variance	Comments
<b>Cash Flows From Operating Activities</b>				
Operating Revenues	1,577,553	1,259,236	318,317	
Operating Expenses (ex D&A)	(956,665)	(965,008)	8,343	
Non-Cash Working Capital Changes	1,340,740	1,200,000	140,740	Favorable working capital movement
Net Cash Provided by (Used in) Operating Activities	1,961,628	1,494,228	467,400	
<b>Cash Flows From Financing Activities</b>				
Capital Contributions	-	-	-	
Proceeds New Borrowing	-	-	-	
Interest Payments	(14,215)	(17,196)	2,981	
Principal Payments	(40,944)	(39,844)	(1,100)	
Net Cash Provided by (Used in) Financing Activities	(55,159)	(57,040)	1,881	
<b>Cash Flows from Capital and Related Activities</b>				
Non-Operating Revenues	24,449	18,833	5,616	
Project Reimbursement	-	-	-	
Non-Operating Expenses	-	-	-	
Capital Expenditures	(112,595)	(801,625)	689,030	Favorable timing variance
Net Cash Provided By (Used In) Capital and Related Activities	(88,146)	(782,792)	694,646	
<b>Cash Flows From Investing Activities</b>				
Investments Converting To Cash	-	-	-	
Purchased Investments	(3,759,473)	(3,750,000)	(9,473)	
Interest Income	21,014	6,250	14,764	
Net Cash Provided By (Used In) Investing Activities	(3,738,459)	(3,743,750)	5,291	
<b>FUND NET CASH FLOWS</b>	(1,920,136)	(3,089,354)	1,169,218	

LEHIGH COUNTY AUTHORITY  
FINANCIAL STATEMENTS - CITY DIVISION  
FEBRUARY 2019

MONTH					FEBRUARY 2019					YEAR-TO-DATE					FULL YEAR				
Actual	Forecast	Prior Yr	FC Var	PY Var	INCOME STATEMENT					Actual	Forecast	Prior Yr	FC Var	PY Var	Forecast	Budget	Prior Yr	Bud Var	PY Var
					<b>Operating Revenues</b>														
3,121,855	3,110,185	2,821,011	11,670	300,845	Charges For Services					5,973,217	5,945,370	5,596,974	27,847	376,243	37,022,206	37,022,206	35,897,463	-	1,124,743
-	-	-	-	-	Rent					-	-	-	-	-	-	-	-	-	-
71,943	67,309	75,929	4,634	(3,987)	Other Income					86,589	94,618	117,688	(8,029)	(31,099)	567,706	567,706	519,893	-	47,813
3,193,798	3,177,494	2,896,940	16,304	296,858	Total Operating Revenues					6,059,806	6,039,988	5,714,662	19,818	345,144	37,589,912	37,589,912	36,417,356	-	1,172,556
					<b>Operating Expenses</b>														
436,907	436,150	416,403	(757)	(20,504)	Salaries and Wages					864,051	877,300	871,447	13,249	7,396	5,653,796	5,653,796	5,410,578	-	(243,218)
521,046	543,967	552,698	22,921	31,652	General and Administrative					1,095,978	1,117,934	1,022,875	21,956	(73,103)	6,407,601	6,407,601	6,623,682	-	216,081
166,833	174,605	165,582	7,772	(1,250)	Utilities					350,456	349,210	329,451	(1,246)	(21,005)	2,095,255	2,095,255	1,985,067	-	(110,188)
80,605	88,102	184,538	7,497	103,933	Materials and Supplies					117,727	159,204	210,216	41,477	92,489	1,597,216	1,597,216	1,196,225	-	(400,991)
138,213	130,737	70,575	(7,476)	(67,638)	Miscellaneous Services					172,920	216,474	130,588	43,554	(42,332)	1,988,845	1,988,845	1,753,015	-	(235,830)
-	1,000	-	1,000	-	Treatment & Transportation					-	2,000	-	2,000	-	12,000	12,000	9,827	-	(2,173)
490,000	490,000	466,667	-	(23,333)	Depreciation and Amortization					980,000	980,000	933,334	-	(46,666)	5,880,000	5,880,000	5,600,004	-	(279,996)
1,833,604	1,864,561	1,856,465	30,957	22,860	Total Operating Expenses					3,581,132	3,702,122	3,497,910	120,990	(83,222)	23,634,713	23,634,713	22,578,398	-	(1,056,315)
1,360,193	1,312,933	1,040,475	47,260	319,718	<b>Operating Income</b>					2,478,674	2,337,866	2,216,752	140,808	261,922	13,955,199	13,955,199	13,838,958	-	116,241
					<b>Non-Operating Revenues (Expenses)</b>														
-	-	-	-	-	Tapping and Capital Recovery fees					12,095	54,000	41,740	(41,905)	(29,645)	324,000	324,000	563,921	-	(239,921)
12,095	27,000	21,148	(14,905)	(9,053)	Meter Sales					6,011	2,000	3,772	4,011	2,239	12,000	12,000	8,397	-	3,603
3,983	1,000	3,772	2,983	211	Inspection and Plan Reviews					4,000	34,500	59,671	(30,500)	(55,671)	207,000	207,000	44,961	-	162,039
4,000	17,250	57,376	(13,250)	(53,376)	Project Reimbursements					-	-	-	-	-	1,645,000	1,645,000	372,527	-	1,272,473
-	-	-	-	-	Interest Income					113,072	66,666	64,173	46,406	48,899	400,000	400,000	1,047,648	-	(647,648)
113,072	33,333	41,649	79,739	71,423	Other Income					8,025	3,666	7,500	4,359	525	22,000	22,000	47,662	-	(25,662)
3,780	1,833	3,540	1,947	240	Interest Expense					(2,926,516)	(2,959,430)	(2,805,468)	32,914	(121,048)	(18,956,576)	(18,956,576)	(19,329,507)	-	372,931
(1,365,932)	(1,379,715)	(1,402,734)	13,783	36,802	Other Expense					(30,991)	(159,166)	(172,529)	128,175	141,538	(1,645,000)	(1,645,000)	(2,604,496)	-	959,496
(13,852)	(137,083)	(82,220)	123,231	68,368	Total Non-Operating Revenues (Expenses)					(2,814,304)	(2,957,764)	(2,801,141)	143,460	(13,163)	(17,991,576)	(17,991,576)	(19,848,886)	-	1,857,310
117,339	(123,449)	(316,995)	240,788	434,334	<b>Net Income Before Capital Contributions</b>					(335,630)	(619,898)	(584,389)	284,268	248,759	(4,036,377)	(4,036,377)	(6,009,928)	-	1,973,551
-	-	-	-	-	<b>Capital Contributions</b>					-	-	-	-	-	-	-	-	-	-
117,339	(123,449)	(316,995)	240,788	434,334	<b>NET INCOME</b>					(335,630)	(619,898)	(584,389)	284,268	248,759	(4,036,377)	(4,036,377)	(6,009,928)	-	1,973,551

LEHIGH COUNTY AUTHORITY  
FINANCIAL STATEMENTS - CITY DIVISION  
FEBRUARY 2019

MONTH					FEBRUARY 2019					YEAR-TO-DATE					FULL YEAR				
Actual	Forecast	Prior Yr	FC Var	PY Var	CASH FLOW STATEMENT					Actual	Forecast	Prior Yr	FC Var	PY Var	Forecast	Budget	Prior Yr	Bud Var	PY Var
					<b>Cash Flows From Operating Activities</b>														
3,193,798	3,177,494	2,896,940	16,304	296,858	Operating Revenues					6,059,806	6,039,988	5,714,662	19,818	345,144	37,589,912	37,589,912	36,417,356	-	1,172,556
(1,343,604)	(1,374,561)	(1,389,798)	30,957	46,193	Operating Expenses (ex D&A)					(2,601,132)	(2,722,122)	(2,564,576)	120,990	(36,556)	(17,754,713)	(17,754,713)	(16,978,394)	-	(776,319)
(543,541)	(500,000)	(49,754)	(43,541)	(493,787)	Non-Cash Working Capital Changes					(1,728,072)	(1,500,000)	(1,899,524)	(228,072)	171,452	-	-	311,458	-	(311,458)
1,306,652	1,302,933	1,457,388	3,719	(150,736)	Net Cash Provided by (Used in) Operating Activities					1,730,602	1,817,866	1,250,562	(87,264)	480,040	19,835,199	19,835,199	19,750,420	-	84,779
					<b>Cash Flows From Financing Activities</b>														
-	-	-	-	-	Capital Contributions					-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	Proceeds New Borrowing					-	-	-	-	-	-	-	18,735,000	-	(18,735,000)
(0)	-	-	(0)	(0)	Interest Payments					(5,348)	-	-	(5,348)	(5,348)	(14,956,576)	(14,956,576)	(13,321,283)	-	(1,635,293)
-	-	-	-	-	Principal Payments					-	-	-	-	-	-	-	(18,735,000)	-	18,735,000
(0)	-	-	(0)	(0)	Net Cash Provided by (Used in) Financing Activities					(5,348)	-	-	(5,348)	(5,348)	(14,956,576)	(14,956,576)	(13,321,283)	-	(1,635,293)
					<b>Cash Flows from Capital and Related Activities</b>														
23,858	47,083	85,835	(23,225)	(61,977)	Non-Operating Revenues					30,131	94,166	112,683	(64,035)	(82,552)	565,000	565,000	664,941	-	(99,941)
-	-	-	-	-	Project Reimbursement					-	-	-	-	-	1,645,000	1,645,000	372,527	-	1,272,473
-	-	-	-	-	Non-Operating Expenses					-	-	-	-	-	(516,200)	(516,200)	(511,560)	-	(4,640)
(154,704)	(403,750)	(216,797)	249,046	62,093	Capital Expenditures					(234,646)	(692,500)	(367,416)	457,854	132,770	(4,845,000)	(4,845,000)	(8,094,916)	-	3,249,916
(130,846)	(356,667)	(130,962)	225,821	116	Net Cash Provided By (Used In) Capital and Related Activities					(204,515)	(598,334)	(254,733)	393,819	50,218	(3,151,200)	(3,151,200)	(7,569,008)	-	4,417,808
					<b>Cash Flows From Investing Activities</b>														
-	-	-	-	-	Investments Converting To Cash					-	-	-	-	-	-	-	4,000,000	-	(4,000,000)
-	-	-	-	-	Purchased Investments					-	-	-	-	-	-	-	-	-	-
113,072	33,333	41,649	79,739	71,423	Interest Income					113,072	66,666	64,173	46,406	48,899	400,000	400,000	1,047,648	-	(647,648)
113,072	33,333	41,649	79,739	71,423	Net Cash Provided By (Used In) Investing Activities					113,072	66,666	64,173	46,406	48,899	400,000	400,000	5,047,648	-	(4,647,648)
<u>1,288,878</u>	<u>979,599</u>	<u>1,368,075</u>	<u>309,279</u>	<u>(79,197)</u>	<b>FUND NET CASH FLOWS</b>					<u>1,633,811</u>	<u>1,286,198</u>	<u>1,060,002</u>	<u>347,613</u>	<u>573,809</u>	<u>2,127,423</u>	<u>2,127,423</u>	<u>3,907,778</u>	<u>-</u>	<u>(1,780,355)</u>
					<b>DEBT SERVICE RATIO</b>														
1,952,194	1,851,773	1,593,219	100,421	358,974	Total Cash Available For Debt Service					3,525,172	3,415,546	3,242,905	109,626	282,267	20,421,285	20,421,285	20,696,843	-	(275,558)
1,246,381	1,246,381	1,087,310	-	159,071	Debt Service					2,492,762	2,492,762	2,174,620	-	318,142	14,956,576	14,956,576	13,047,721	-	1,908,855
<u>1.57</u>	<u>1.49</u>	<u>1.47</u>	<u>0.08</u>	<u>0.10</u>	<b>DSCR</b>					<u>1.41</u>	<u>1.37</u>	<u>1.49</u>	<u>0.04</u>	<u>(0.08)</u>	<u>1.37</u>	<u>1.37</u>	<u>1.59</u>	<u>-</u>	<u>(0.22)</u>

LEHIGH COUNTY AUTHORITY  
FINANCIAL STATEMENTS - CITY DIVISION  
FEBRUARY 2019

FORECAST VARIANCES - MONTH

INCOME STATEMENT	Actual	Forecast	Variance	Comments
<b>Operating Revenues</b>				
Charges For Services	3,121,855	3,110,185	11,670	
Rent	-	-	-	
Other Income	71,943	67,309	4,634	
Total Operating Revenues	3,193,798	3,177,494	16,304	No major variance
<b>Operating Expenses</b>				
Salaries and Wages	436,907	436,150	(757)	
General and Administrative	521,046	543,967	22,921	Lower internal service charges
Utilities	166,833	174,605	7,772	
Materials and Supplies	80,605	88,102	7,497	
Miscellaneous Services	138,213	130,737	(7,476)	
Treatment & Transportation	-	1,000	1,000	
Depreciation and Amortization	490,000	490,000	-	
Total Operating Expenses	1,833,604	1,864,561	30,957	
<b>Operating Income</b>	1,360,193	1,312,933	47,260	
<b>Non-Operating Revenues (Expenses)</b>				
Tapping and Capital Recovery fees	12,095	27,000	(14,905)	Lower tapping fees
Meter Sales	3,983	1,000	2,983	
Inspection and Plan Reviews	4,000	17,250	(13,250)	
Project Reimbursements	-	-	-	
Interest Income	113,072	33,333	79,739	Higher investment earnings
Other Income	3,780	1,833	1,947	
Interest Expense	(1,365,932)	(1,379,715)	13,783	
Other Expense	(13,852)	(137,083)	123,231	Lower expensed capital project spending
Total Non-Operating Revenues (Expenses)	(1,242,854)	(1,436,382)	193,528	
<b>Net Income Before Capital Contributions</b>	117,339	(123,449)	240,788	
<b>Capital Contributions</b>	-	-	-	
<b>NET INCOME</b>	117,339	(123,449)	240,788	

FORECAST VARIANCES - MONTH

CASH FLOW STATEMENT	Actual	Forecast	Variance	Comments
<b>Cash Flows From Operating Activities</b>				
Operating Revenues	3,193,798	3,177,494	16,304	
Operating Expenses (ex D&A)	(1,343,604)	(1,374,561)	30,957	
Non-Cash Working Capital Changes	(543,541)	(500,000)	(43,541)	Unfavorable working capital movement
Net Cash Provided by (Used in) Operating Activities	1,306,652	1,302,933	3,719	
<b>Cash Flows From Financing Activities</b>				
Capital Contributions	-	-	-	
Proceeds New Borrowing	-	-	-	
Interest Payments	(0)	-	(0)	
Principal Payments	-	-	-	
Net Cash Provided by (Used in) Financing Activities	(0)	-	(0)	
<b>Cash Flows from Capital and Related Activities</b>				
Non-Operating Revenues	23,858	47,083	(23,225)	
Project Reimbursement	-	-	-	
Non-Operating Expenses	-	-	-	
Capital Expenditures	(154,704)	(403,750)	249,046	Favorable timing effect
Net Cash Provided By (Used In) Capital and Related Activities	(130,846)	(356,667)	225,821	
<b>Cash Flows From Investing Activities</b>				
Investments Converting To Cash	-	-	-	
Purchased Investments	-	-	-	
Interest Income	113,072	33,333	79,739	Higher investment earnings
Net Cash Provided By (Used In) Investing Activities	113,072	33,333	79,739	
<b>FUND NET CASH FLOWS</b>	1,288,878	979,599	309,279	

**CASH & INVESTMENT SUMMARY**  
**FEBRUARY 2019**  
**YTD CHANGES IN CASH BALANCES**

	Suburban Water	Suburban Wastewater	City Division
<b>CURRENT MONTH</b>			
CASH			
Operating	9,106,863.83	4,732,350.08	17,108,397.84
Capital	5,944,969.89	5,882,934.65	43,081.03
Restricted	1,569,652.70	337,621.16	37,064,517.46
Escrow	4,808,942.07	-	6,361.28
Total Cash	21,430,428.49	10,952,905.89	54,222,357.61
INVESTMENTS			
Operating	2,874,517.42	-	-
Capital	2,760,850.24	8,460,559.43	-
Restricted	25,525.94	-	3,940,640.00
Total Investments	5,660,893.60	8,460,559.43	3,940,640.00
TOTAL CASH & INVESTMENTS	<b>27,091,322.09</b>	<b>19,413,465.32</b>	<b>58,162,997.61</b>
<b>BEGINNING OF YEAR</b>			
CASH			
Operating	8,283,969.69	5,314,951.71	18,017,729.33
Capital	5,772,084.72	7,739,379.19	42,935.90
Restricted	1,564,965.39	337,562.23	34,521,520.50
Escrow	4,990,657.44	-	6,361.22
Total Cash	20,611,677.24	13,391,893.13	52,588,546.95
INVESTMENTS			
Operating	3,356,991.39	-	-
Capital	3,393,212.74	6,455,704.16	-
Restricted	25,521.88	-	3,940,640.00
Total Investments	6,775,726.01	6,455,704.16	3,940,640.00
TOTAL CASH & INVESTMENTS	<b>27,387,403.25</b>	<b>19,847,597.29</b>	<b>56,529,186.95</b>
<b>YTD CHANGE IN BALANCES</b>			
CASH			
Operating	822,894.14	(582,601.63)	(909,331.49)
Capital	172,885.17	(1,856,444.54)	145.13
Restricted	4,687.31	58.93	2,542,996.96
Escrow	(181,715.37)	-	0.06
Total Cash	818,751.25	(2,438,987.24)	1,633,810.66
INVESTMENTS			
Operating	(482,473.97)	-	-
Capital	(632,362.50)	2,004,855.27	-
Restricted	4.06	-	-
Total Investments	(1,114,832.41)	2,004,855.27	-
TOTAL CASH & INVESTMENTS	<b>(296,081.16)</b>	<b>(434,131.97)</b>	<b>1,633,810.66</b>
<b>CASH WITHOUT ESCROW</b>	<b>1,000,466.62</b>	<b>(2,438,987.24)</b>	<b>1,633,810.60</b>

Presented: March 25, 2019

Critical Activities	System	Description	Feb-19	2019 Totals	2018 Totals	Permit
			Daily Avg (MGD)	Daily Avg (MGD)	Daily Avg (MGD)	Daily Max (MGD)
Water Production	Allentown	Total	21.48	21.06	21.48	39.0
		Schantz Spring	8.18	8.09	6.90	9.0
		Crystal Spring	3.89	3.89	3.88	4.0
		Little Lehigh Creek	9.40	9.08	10.69	30.0
		Lehigh River	0.00	0.00	0.02	28.0
	Central Lehigh	Total	8.97	8.83	9.46	19.04 MGD Avg
		Feed from Allentown	6.96	6.90	6.74	7.0 MGD Avg 10.5 MGD Max
		Well Production (CLD)	2.01	1.94	2.71	8.54 MGD Avg
		Sum of all (12) other Suburban Water Systems	0.16	0.17	0.18	1.71 Sum of all wells
Wastewater Treatment		Kline's Island	38.67	40.15	36.08	40.0
		Pretreatment Plant	5.69	6.10	5.46	5.75 (design capacity)
		Sum of all (5) other Suburban WW Systems	0.19	0.21	0.20	0.36
			Feb-19	2019 Totals	2018 Totals	2017 Totals
Precipitation Totals (inches)			2.92	7.62	66.96	50.18
Compliance Reports Submitted to Allentown			19	48	285	291
Notices of Violation (NOVs)		(Allentown + Suburban)	1	1	1	3
Sanitary Sewer Overflows (SSOs)/Bypasses		(Allentown + Suburban)	1	5	78	22
Main Breaks Repaired		Allentown	2	9	33	19
		Suburban	0	1	23	12
Customer Service Phone Inquiries		(Allentown + Suburban)	1,937	4,082	26,440	27,313
Water Shutoffs for Non-Payment		(Allentown + Suburban)	127	189	1,838	1,577
Injury Accidents		(Allentown + Suburban)	2	3	14	8
Emergency Declarations		Allentown	(1) @ \$15,176	(1) @ \$15,176	(5) @ \$76,469	(2) @ \$51,235
		Suburban	(1) @ \$19,335	(1) @ \$19,335	(1) @ \$21,197	(1) @ \$72,554
Significant Repairs: Nothing to report.						
Description of NOVs and/or SSOs: There was one (1) bypass during February, having occurred at Heidelberg Heights WWTP from February 21-27, 2019. There was one (1) NOV issued by PaDEP on February 11, 2019 and it resulted from incidents at the Heidelberg Heights WWTP between February 2016 to present. There were no recorded SSOs in either of the Allentown or suburban collection systems during February.						
Other Highlights: City Water Plant maintenance staff installed new VFDs on the pumps serving Westmount, a private 156 unit subdivision near Wegmans off Tilghman Street. The VFDs will make serving this high level area more efficient and reliable. Allentown agreed to maintain the facility in 2005, and will take over the entire system in 2030.						

## Western Lehigh Interceptor High Flow Emergency Project

Status as of 3/15/2019

The Iron Run Trunk Line (IRTL) between the Industrial Pretreatment Plant (PTP) and Manhole (MH) U6, is the main area of recurring SSOs that led to the development of this project. This reach is being referred to as Phase I.

Five (5) contractors were approached to bid on Phase I rehabilitation and two (2) responded. The emergency contract is being awarded to Standard Pipe Services (SPS), out of Delaware. The contract was finalized during the week of 3/11/2019. SPS is scheduled to begin setting up bypass pumping during the week of 3/18/2019. Remediation is scheduled to begin during the week of 3/25/2019.

The current plan for Phase I is to have the Pretreatment Plant hold back flow into the FEB on Monday, Wednesday and Friday of each week until the work is done. Tuesday and Thursday will need to be used to release FEB flow. During those days, SPS will CCTV the WLI downstream of Spring Creek Pump Station.

Phase II is the WLI section between U6 and L274. Phase III is the WLI section between L274 and the Spring Creek Pump Station. While SPS proceeds with remediation in Phase I, they will also be approached for a change order to proceed with remediation of Phase II. Contract specifications for a required bypass for all of Phase III are nearly completed. The bypass specifications are to be out for bid by late March/early April.

During the past few months, attempts were made to CCTV the area of Phase III but the levels in the sewer were consistently too high. This is what prompted the need for a full bypass. At this point, we have no idea as to the condition of the WLI in Phase III. Accordingly, whatever is found will need to be fixed during the same bypass and with a Time and Materials arrangement for SPS.

SPS will continue to CCTV downstream of SCPS with the eventual goal of televising all the way to Park Pump Station with repairs to follow.