



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

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

## LEHIGH COUNTY AUTHORITY

Published: February 19, 2024

### BOARD MEETING AGENDA – February 26, 2024 – 12:00 p.m.

**In-Person or Virtual Meeting Attendance Options Available:** Meetings of the LCA Board of Directors will be held at LCA's Main Office as well as online using the Zoom Meetings application, which includes a telephone option. Public participation is welcomed both in-person or virtually. Instructions for joining the meeting online or by phone are posted on the LCA website in the morning on the day of the meeting, prior to the start of each meeting. You may also issue comment to LCA via email to [LCABoard@lehighcountyauthority.org](mailto:LCABoard@lehighcountyauthority.org) in advance of any meeting or view the meeting at a later time by visiting the LCA website. Please visit <https://www.lehighcountyauthority.org/about/lca-board-meeting-videos/> for specific instructions to join the meeting if you are attending virtually. If attending in-person at LCA's Main Office, please follow all safety and sanitation protocols posted.

#### 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

- Additions to Agenda (vote required if action will be taken)

#### 3. Approval of Minutes

- *February 12, 2024 Board Meeting minutes*

#### 4. Public Comments

#### 5. Action / Discussion Items:

##### **FINANCE AND ADMINISTRATION**

- *Authorization for Additional Legal Action Regarding PFAS Litigation*
- *Board of Directors – Election of Officers*

##### **WATER**

- *Water Main Replacement Program Cycles 9-11 (Approval) (blue) (digital Board packet, pages 6-9)*
- *Lead Service Line Replacement Project Cycle 2 (Approval) (yellow) (digital Board packet, pages 10-15)*

##### **WASTEWATER**

- *Sanitary Sewer Collection System: I&I Source Reduction Program (LCA Year 1) (Approval) (green) (digital Board packet, pages 16-18)*

#### 6. Monthly Project Updates / Information Items (1<sup>st</sup> Board meeting per month) (digital Board packet, pages)

7. Monthly Financial Review (2<sup>nd</sup> Board meeting per month) (digital Board packet pages 19-31) – **December 2023 report attached**
8. Monthly System Operations Overview (2<sup>nd</sup> Board meeting per month) (digital Board packet, pages 32-40) – **January 2024 report attached**
9. Staff Comments
10. Solicitor's Comments
11. Public Comments / Other Comments
12. Board Member Comments
13. Executive Sessions
14. Adjournment

UPCOMING BOARD MEETINGS		
March 11, 2024	March 25, 2024	April 8, 2024

#### 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 12, 2024**

The Regular Meeting of the Lehigh County Authority Board of Directors was called to order at 12:11 p.m. on Monday, February 12, 2024, Chairman Brian Nagle presiding. The meeting was hybrid via in-person and video and audio advanced communication technology ("ACT"), using the Zoom internet application, including telephone option. Each Board member and other attendees of the meeting were able to hear each other attendee and be heard by each other attendee. The public could also participate in the meeting in-person or via ACT, using the Zoom internet application, including telephone option. A Roll Call of Board members present was taken. Brian Nagle, Linda Rosenfeld, Jeff Morgan, Norma Cusick, Amir Famili, Sean Ziller, and Marc Grammes were present for Roll Call, and remained for the duration of the meeting.

Attorney Kevin Reid, the Authority's Solicitor, was present along with Authority Staff, Ed Klein, Chris Moughan, Andrew Moore, AJ Capuzzi, Phil DePoe, Chuck Volk, and Lisa Miller.

Chairman Nagle announced that there was an Executive Session prior to the start of the regular meeting to discuss potential litigation.

Chairman Nagle announced that the Board received their electronic and hard copies of the Board packet in advance. He then asked if anyone did not receive their copy of the packet. A copy of the packet is also available online.

#### **REVIEW OF AGENDA**

Ed Klein announced that there is no Executive Session planned; however, there is a minor change to the agenda. The item under Finance and Administration, Authorization for Additional Legal Action Regarding PFAS Litigation will not require action or discussion today.

#### **APPROVAL OF MINUTES**

##### **January 22, 2024 Meeting Minutes**

On a motion by Linda Rosenfeld, seconded by Amir Famili, the Board approved the minutes from the January 22, 2024 meeting as presented (7-0).

#### **PUBLIC COMMENTS**

None.

##### **Legal Services: Development of New Intermunicipal Agreement(s)**

Phil DePoe introduced Attorney Lee Stinnett from Salzmans Hughes. Salzmans Hughes was chosen to provide legal services to the Kline's Island Sewer System (KISS) municipalities for the purposes of jointly negotiating and drafting a new intermunicipal agreement or agreements. Mr. DePoe stated that as part of the Act 537 Plan development process, the municipalities have begun contemplating the need for updated cost-sharing mechanisms for the new projects that will be outlined in the Plan. The overall goal is to simplify billing and also how the large capital improvements should be addressed from a financial perspective.

Attorney Lee Stinnett gave an overview of his experience with agreements and his work with municipalities. He also has experience working with state regulatory agencies and Act 537 plans.

There was some Board discussion regarding the technical aspects of the agreements and how the Authority and Salzmans Hughes plan to bring that together in the agreements, and the use of

sewage billing meters. Atty. Stinnett explained his extensive work experience with intermunicipal agreements.

On a motion by Jeff Morgan, seconded by Linda Rosenfeld, the Board authorized the Chief Executive Officer, or her designee, to execute the engagement letter with Salzmann Hughes contained in their January 15, 2024 proposal, not to exceed \$75,000.00 (7-0).

### **KISS Relief Interceptor Pre-Design Study**

Phil DePoe provided an overview of the project which will construct relief facilities for the Little Lehigh Interceptor in Allentown, which has been identified as running in an overloaded condition for a long period of time. In order to develop the project details for inclusion in the Act 537 Plan, the next stage of planning requires survey, subsurface utility locating, geotechnical investigation, groundwater investigation, wetlands assessments, and PNDI/PHMC evaluations. The project concept includes constructing a parallel interceptor that will extend along Martin Luther King Jr. Blvd to the Kline's Island Wastewater Treatment Plant. The interceptor alignment must be finalized for the Act 537 Plan submission.

Mr. DePoe explained that the funding for the pre-design work will initially come from the Authority's Little Lehigh Relief Interceptor Phase 1 (LLRI-1) fund, which was established to manage shared capital and operating costs associated with the Park Pump Station. Nine of 15 municipalities in the Kline's Island Sewer System currently contribute toward the LLRI-1, and will pay for the pre-design work in 2024 and 2025. Reimbursement agreements from the remaining municipalities will be developed as part of the negotiation of a new intermunicipal cost-sharing agreement. There was some discussion regarding the risk associated with cost recovery in the absence of a final cost-sharing agreement. Mr. DePoe explained that the LLRI-1 municipalities are already aware of the proposed arrangement and are agreeable to this approach.

Mr. DePoe reviewed the pre-design tasks and the three subconsultants that will be working with Arcadis.

On a motion by Amir Famili, seconded by Norma Cusick, the Board approved the Capital Project Authorization: KISS Act 537 – KISS Relief Interceptor (KRI) in the amount of \$879,000.00 which includes the Professional Services Authorization to Arcadis – KRI Pre-Design in the amount of \$779,000.00 (7-0).

### **Arcadia WWTP Screening System Project**

Chuck Volk introduced the project and provided some background to upgrade the Arcadia Wastewater Treatment Plant located in Weisenberg Township. Matt Dörner provided details of the project noting that there is a sewage grinder in the influent wet well, but the WWTP has no screening system for the raw wastewater. Therefore, rags and other bulky debris accumulate creating maintenance issues. This project will consist of the installation of two automatic mechanical screening units, one for each Sequencing Batch Reactor.

On a motion by Norma Cusick, seconded by Marc Grammes, the Board approved the Capital Project Authorization for the design phase in the amount of \$66,300.00 which includes the Professional Services Authorization for design phase engineering services to D'Huy Engineering in the amount of \$48,400.00 (7-0).

**Kline's Island WWTP: Secondary Digester Cleaning**

Amy Rohrbach gave an overview of the project that is required by the City of Allentown Lease Agreement. The digester tanks are required to be cleaned every five years and the Secondary Digester is due for cleaning. The activities that are necessary are to empty, dewater, and clean the Secondary Digester, replace digested sludge sample lines, and repair the overflow box.

Chuck Volk added that the costs are high due to the extensive mobilization involved with this project.

On a motion by Sean Ziller, seconded by Marc Grammes, the Board approved the Capital Project Authorization for the Construction Phase in the amount of \$292,900.00 which includes the Professional Services Authorization to GHD Inc. in the amount of \$17,900.00, and the General Contract Award to Romesberg Trucking, Inc. dba Mobile Solids Solutions in the amount of \$265,000.00 (7-0).

**MONTHLY PROJECT UPDATES / INFORMATION ITEMS**

Ed Klein highlighted items for the next meeting in February. Chairman Nagle asked Norma Cusick to serve as the Nominating Committee for the upcoming Board election of officers. Ms. Cusick will poll the Board members regarding their interest in being nominated to an officer position. Nominations will be finalized, and officers will be elected at the next meeting.

**STAFF COMMENTS**

None.

**SOLICITOR'S COMMENTS**

None.

**PUBLIC COMMENTS / OTHER COMMENTS**

None.

**BOARD MEMBER COMMENTS**

None.

**EXECUTIVE SESSION**

None.

**ADJOURNMENT**

There being no further business, the Chairman adjourned the meeting at 1:09 p.m.

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Linda A. Rosenfeld  
Secretary

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## MEMORANDUM

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**Date:** February 26, 2024

**To:** Lehigh County Authority Board of Directors  
**From:** Jason Peters, Linear Asset Project Manager  
**Subject:** Allentown Division- Water Main Replacement Program:  
Design Phase & Pipe Prioritization Assessment for Cycles 9-11

**MOTIONS / APPROVALS REQUESTED:**

No.	Item	Amount
1	Capital Project Authorization – Design Phase & Pipe Prioritization Assessment Program Cycles 7&8	\$775,000
2	Professional Services Authorization – Gannett Fleming, Inc. (1), (2)	\$525,000

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

**PROJECT OVERVIEW:**

The Operating Standards of the Lease Agreement (Agreement), as amended in 2020, requires Lehigh County Authority (LCA) to replace aged spun and/or pit cast-iron water mains annually. This Project covers Cycles 9-11 which will address the Allentown Division (AD) main replacement requirements through 2027.

The Project includes approval for approximately 6 miles of water main to be designed and bid through the term of this authorization (3 years). All water main replacements will be constructed from intersection to intersection thus allowing future replacements to be easily constructed without interruptions in service to customers in the area. Any additional water main beyond the Agreement will be credited to future project cycles installation requirements. Additionally, the Project scope includes the annual Pipe Prioritization Assessment Program, which includes a 5-year replacement plan as required by the Agreement.

Given the complex nature of this project, which entails replacing mains in a densely populated urban area with many underground facilities and continuous traffic and work restrictions, coordination with the City of Allentown (COA) along with outside agencies and private utilities (such as UGI) is critical to obtain the necessary approvals. As was the protocol for the previous Cycles 1-8 projects that addressed the main replacement requirements for years 2014 through 2024, it is envisioned that all main replacements for a given year will be covered by a single construction contract.

**FINANCIAL:**

The Project will be funded by the LCA Allentown Division and has been approved by the COA as a Major Capital Improvement.

**PROJECT STATUS:**

Pending Board approval of the Design Phase for Cycles 9-11

**THIS APPROVAL - DESIGN PHASE CYCLES 9-11**

In order to leverage continued continuity and efficiencies with the engineering work, LCA recommends retaining the services of Gannett Fleming, Inc. (GF) to provide design and bid phase services (including the annual Pipe Prioritization Assessment Program) for Cycles 9-11 Program. The following table summarizes the professional services to be performed:

<b>Professional Services <sup>(1)</sup></b>
1. Administer the Pipe Prioritization Assessment Program.
2. Prepare the Pipe Prioritization Assessment Report for projected 5-year plan in compliance with the Agreement and attend review meetings with LCA and the City
3. Coordinate with City Streets Program, other City departments, outside agencies and utilities.
4. Prepare plans and specifications for segments of main to be replaced.
5. Prepare and obtain regulatory and municipal permits as required.
6. Provide bid phase services, including pre-bid meeting administration, addenda preparation, bid review and recommendation.

*(1) THE FOLLOWING SERVICES ARE NOT INCLUDED: The design and permitting of ADA ramps at intersections pursuant to the Americans with Disabilities Act that may be required in some cases by street paving restoration; permitting for railroad borings, creek/river crossings; design of water mains that are affixed to bridges. If deemed necessary, a cost will be negotiated for the required service.*

**CONSULTANT PROJECT BACKGROUND:**

Gannett Fleming (GF) has served as design engineer for the prior City water main replacement projects (cycles 1 through 8) and they consistently provided excellent deliverables and meet LCA goals. The firm also provided design services on numerous other water projects for both LCA Suburban and Allentown Division. GF and LCA have established an excellent partnership over the last 10 years working with the City of Allentown (COA) and the firm is familiar with the City department approval processes and protocols, including developing cost sharing agreements for final restoration.

**FUTURE AUTHORIZATIONS:**

Capital Project Authorization (CPA) Amendment(s) will be presented to the Board at a later date for Construction Phase (approvals will be requested separately for each cycle on an annual basis in late March or early April after bids are received).

# CAPITAL PROJECT AUTHORIZATION

PROJECT NO.:	AD-W-24-2	BUDGET FUND:	Allentown Div\Water\Capital
PROJECT TITLE:	Allentown Division -Water Main Replacement Program Cycles 9-11	PROJECT TYPE:	<input type="checkbox"/> Construction <input checked="" type="checkbox"/> Engineering Design <input type="checkbox"/> Equipment Purchase <input type="checkbox"/> Amendment
THIS AUTHORIZATION:	\$ 775,000		

## DESCRIPTION AND BENEFITS:

Through the Operating Standards of the Lease Agreement (Agreement) Lehigh County Authority is required to annually replace aged spun and/or pit cast-iron water mains. This Project covers Cycles 9-11, which includes replacing approximately 6 miles of water main from 2025 through 2027. This work must be coordinated with the City of Allentown (COA) and outside agencies and private utilities. Project scope also includes the annual Pipe Prioritization Program.

The annual main replacements are critical in meeting the requirements of the Agreement and provide long term reliability of water service for our customers.

Please reference the cover Memo for additional information.

## Authorization Status:

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REQUESTED THIS AUTHORIZATION	
Design Phase	
Staff	\$100,000
Gannett Fleming: Pipe Prioritization Program, Design, & Bid Phase Services	\$525,000
Contingencies <sup>(1)</sup>	\$150,000
Total This Authorization	\$775,000

Future Authorizations	
Construction Phase	\$14,025,000

Total Estimated Project	\$14,800,000
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(1) Includes subsurface investigations such as geo-tech work, soft digs, ground penetrating radar if required; also permit fees and other miscellaneous costs.

## REVIEW AND APPROVALS:

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





**Lehigh County Authority**

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

## PROFESSIONAL SERVICES AUTHORIZATION

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

**Date:** February 26, 2024

**Requested By:** Jason Peters

**Approvals**

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

**Chief Executive**

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

### **Allentown Division - Water Main Replacement Program Cycles 9-11: Design Phase**

Gannett Fleming, Inc. will perform the following design and bid phase services for Cycles 9-11 of the Allentown Division Water Main Replacement Program:

<b>Professional Services<sup>(1)</sup></b>
1. Administer the Pipe Prioritization Assessment Program
2. Prepare the Assessment Report for the projected 5-year plan in compliance with the Agreement and attend review meetings with LCA and the City.
3. Coordinate with City Streets Program, other City departments, outside agencies and utilities
4. Prepare plans and specifications
5. Provide permitting services (regulatory and municipal).
6. Provide bid phase services.

*(1) THE FOLLOWING SERVICES ARE NOT INCLUDED: The design and permitting of ADA ramps at intersections pursuant to the Americans With Disabilities Act that may be required in some cases by street paving restoration; permitting for railroad borings, creek/river crossings; design of water mains that are affixed to bridges. If deemed necessary, a cost will be negotiated for the required service.*

### **Design Phase:**

**Cost Estimate (not to be exceeded without further authorization): \$525,000**

**Time Table and Completion Deadline:** As required to meet various critical deadlines.

**(For Authority Use Only)**

**Authorization Completion:**

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

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## MEMORANDUM

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**Date:** February 26, 2024

**To:** Lehigh County Authority Board of Directors  
**From:** Jason Peters, Linear Asset Project Manager  
**Subject:** Allentown Division – Lead Service Line Replacement Program Cycle 2

**MOTIONS / APPROVALS REQUESTED:**

No.	Item	Amount
1	Capital Project Authorization – Lead Services Replacement Program Cycle 2: Design, Bid, and Construction Phase	\$1,222,207
2	Professional Services Authorization – Funding Application Services: Gannett Fleming <sup>(1)</sup>	\$38,600
3	Professional Services Authorization – Design, Bid and Construction Phase Services: CDM Smith <sup>(1)</sup>	\$933,607

*(1) Included in the Capital Project Authorization*

**PROJECT BACKGROUND**

In 2021, the US Environmental Protection Agency (US EPA) issued the final regulatory framework for the Lead and Copper Rule Revisions (LCRR). In late 2023, US EPA published the proposed Lead and Copper Rule Improvements (LCRI), which would require replacement of all lead water service lines within 10 years of the final rule. Lehigh County Authority (LCA) has taken a proactive approach and developed an in-depth lead service line replacement (LSLR) plan. LCA received funding of \$5M from PennVEST for the Cycle 1 LSLR work (\$3.4M in grant, \$1.6M in low-interest loan). Design is underway and construction is expected to start in June to replace 150 service lines included in Cycle 1. The Cycle 2 project will replace 1,000 service lines. LCA will be requesting \$15M in grant funding from PennVEST for this work in May. The project area for Cycle 2 is depicted below:

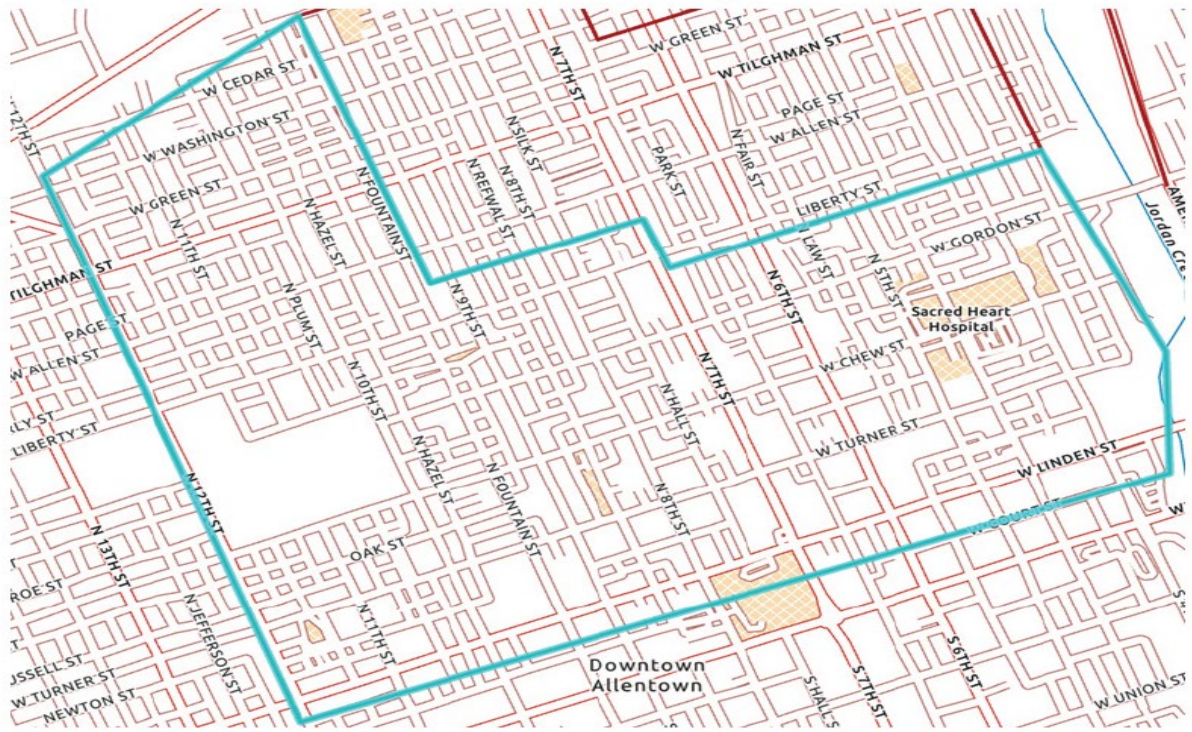


Figure 1 – The area outlined in blue is where the replacement of up to 1,000 lead and galvanized service lines is expected to be performed in the City of Allentown during LCA's Cycle 2 LSLR Project.

## **PROJECT SCOPE**

There are two professional service authorizations for this work that include funding support and design/bid/construction services:

**Funding Application:** This work includes preparing the PennVEST Application and compliance with the state requirements (including Disadvantaged Business Enterprise requirements).

**Design:** The project scope will include field investigation (potholing) and replacement of approximately 1,000 lead service lines (LSL) in Allentown. Given the complex nature of this project, replacing LSL in a densely populated urban area with many underground facilities will require significant coordination with the City of Allentown (COA), private utilities and property owners/residents. The LSLR for Cycle 2 will be covered by a single construction contract. The design will comply with PA One Call requirements for locating subsurface utilities during design phase. To enable submission of the grant application by the May 2024 deadline, the engineer will prepare a design based on GIS data. For bidding and construction, the engineer will prepare a survey-based design showing the location of subsurface utilities (as required by State law). This authorization will also include bid and construction phase engineering services.

## **FINANCIAL**

This Project represents Change of Law and will be funded by the Allentown via a combination of PennVEST grants and loans. The loan portion of the funding will be captured via a Change of Law fee applied to customers in Allentown.

**THIS APPROVAL – LEAD SERVICE LINE REPLACEMENT PROGRAM CYCLE 2:  
PENNVEST FUNDING APPLICATION, DESIGN, BID AND CONSTRUCTION PHASE**

**FUNDING APPLICATION SERVICES:**

The LCA staff recommends retaining the services of Gannett Fleming to provide the PennVEST Funding Application services. Gannett Fleming has successfully completed numerous PennVEST applications for similar projects and is familiar with the City's water system and working with the City Compliance Office. Gannett Fleming completed the successful Cycle 1 PennVEST application.

**DESIGN, BID AND CONSTRUCTION MANAGEMENT SERVICES:**

LCA staff recommends retaining the services of CDM Smith to provide the Design, Bid and Construction Engineering services. Resident inspection services will be requested separately once design is complete (at the time of construction authorization), in order to better assess the estimated inspection manhours required throughout the construction duration. The table below represents a summary of the engineering services:

<b>Professional Services – CDM Smith</b>
Task 1: Project management and design progress meeting attendance, contract administration, project scheduling, design coordination with utilities and other agencies
Task 2: Engineering design (GIS-Based) for PennVEST submission, detailed design, site topographic survey (for construction)
Task 3: Public Communications Support
Task 4: Bid Phase Services
Task 5: Construction Phase Services

**Consultant Selection:**

LCA requested qualifications from Barton Lawson, Ramboll, WRA, HDR, AECOM and CDM Smith for this work. On the basis of the responses, two firms were shortlisted and proposals requested from AECOM and CDM Smith. CDM Smith is a leader in Lead Service Line Replacement (LSLR) work in the US. They led the successful programs in Newark NJ and Trenton NJ. They have managed over 50,000 lead service line replacements in the US. CDM Smith is currently under contract with DC Water, Chicago, Providence and American Water to support the LSLR work. They have added a local consultant partner, Arthur Swallow & Associates, for survey work.

**PROJECT SCHEDULE**

The Design phase work is anticipated to begin in March 2024 and will be ready for bidding in fall 2024, with bids to be opened by year end. Construction is anticipated to commence in early 2025 and be completed by December 2025.

**FUTURE AUTHORIZATIONS**

Construction Phase of the Allentown Division Lead Service Line Replacement Program Cycle 2 (including the resident project inspection work).

# CAPITAL PROJECT AUTHORIZATION

PROJECT NO.:	AD-W-24-3	BUDGET FUND:	Allentown Div\Water\Capital
PROJECT TITLE:	Allentown Division -Lead Service Line Replacement Program Cycle 2	PROJECT TYPE:	<input type="checkbox"/> Construction <input checked="" type="checkbox"/> Engineering Study <input type="checkbox"/> Equipment Purchase <input type="checkbox"/> Amendment
THIS AUTHORIZATION:	\$1,222,207		

## DESCRIPTION AND BENEFITS:

Following the US Environmental Protection Agency (US EPA) regulatory framework for the Lead and Copper Rule Revisions (LCRR). Lehigh County Authority has developed a Lead Service Line (LSL) replacement program. Cycle 2 of this program will include field investigation (potholing) and replacement of approximately 1000 LSLs in the City. This work will be coordinated with the City departments, outside agencies,private utilities, and property owners/residents. Please reference the cover Memo for additional information.

REQUESTED THIS AUTHORIZATION	
Design & Bid Phase	
Staff	\$100,000
Engineering Consultant - Funding Application Services: Gannett Fleming	\$38,600
Engineering Consultant – Design, Bid & Construction Phase Services: CDM Smith	\$933,607
Contingencies <sup>(1)</sup>	\$150,000
Total This Authorization	\$1,222,207

Future Authorization	
Construction Phase	\$13,777,793
Total Estimated Project	\$15,000,000

*(1) Includes subsurface investigations such as geo-tech work, soft digs, ground penetrating radar if required; also permit fees and other miscellaneous costs.*

## REVIEW AND APPROVALS:

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



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

## PROFESSIONAL SERVICES AUTHORIZATION

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

**Date:** February 26, 2024

**Requested By:** Albert Capuzzi

**Approvals**

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

**Chief Executive**

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

### Allentown Division – Lead Service Line Replacement Program Cycle 2

#### This Authorization - PENNVEST funding application services

Gannett Fleming will provide state funding application services for the Allentown Division Lead Service Line Replacement Program Cycle 2 in accordance with their proposal dated 2/14/24. The following table presents a summary of the services to be provided:

Professional Services
1. Prepare cost data for the PennVest Application
2. Prepare and Coordinate the Submission of Supporting Documentation for PennVest Funding; coordination with LCA and the City
3. Assistance in PennVest settlement
4. Prepare and submit Disadvantaged Business Enterprise documents
5. Document contractor's Disadvantaged Business Enterprise Solicitations

**Cost Estimate (not to be exceeded without further authorization): \$38,600**

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

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(For Authority Use Only)

**Authorization Completion:**

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



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

## PROFESSIONAL SERVICES AUTHORIZATION

**Professional:** CDM SMITH  
Two Penn Center Plaza  
1500 JFK Blvd, Suite 1208  
Philadelphia, PA 19102

**Date:** February 26, 2024

**Requested By:** Albert Capuzzi

**Approvals**

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

**Chief Executive**

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

### **Allentown Division – Lead Service Line Replacement Program Cycle 2**

#### **This Authorization: Design, Bid & Construction Phase Services – Cycle 2**

CDM Smith will provide Design, Bid and Construction Phase services for the Allentown Division Lead Service Line Replacement Program Cycle 2 in accordance with their proposal dated 2/14/24. The following table includes a summary of services to be provided:

Professional Services
1. Project Management and Progress Meetings
2. Engineering Design (GIS-Based) for PennVest, Detailed Design for bidding, Site Survey
3. Public Communications Support
4. Bidding Services
5. Construction Services

**Cost Estimate (not to be exceeded without further authorization): \$933,607**

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

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**(For Authority Use Only)**

**Authorization Completion:**

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

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## MEMORANDUM

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**Date:** February 26, 2024

**To:** Lehigh County Authority Board of Directors  
**From:** Jason Peters, Linear Asset Project Manager, Charles Volk, CCWO  
**Subject:** Allentown Division: I&I Source Reduction Program Year 1 - Construction Phase

**MOTIONS / APPROVALS REQUESTED:**

No.	Item	Amount
1	Capital Project Authorization – Construction Phase Year 1	\$2,717,297.50
2*	General Construction Contract – Vortex Services, LLC	\$2,492,297.50

*\*Included in the Capital Project Authorization*

**BACKGROUND:**

Based on recommendations from the 2021 Kline's Island Sewer System (KISS) Flow Characterization Study and the 2022 Rainfall Derived Inflow & Infiltration (RDII) analysis, the City of Allentown developed a 10-year I&I Source Reduction Program (SRP). The SRP specifies projects that LCA will construct beginning in 2024. The goal of the work is the cost-effective reduction of I&I, to reduce both dry-day and wet-weather flows in the KISS. Under the terms of the Lease Agreement with the City, the program is to be developed on a collaborative basis, with the City having final determination of the scope of projects to be completed.

**PROJECT OVERVIEW:**

This authorization request is for the construction phase of the I&I Source Reduction Improvements Year 1 project. The three highest priority sewer system collection basins in the City will be addressed in this project, as per the City's 10 year I&I Source Reduction Program. These three sewer basins were ranked highest based on results of the 2021 Flow Characterization Study and the 2022 RDII analysis. High priority sewer basins are those which have a high rate of rainfall derived I&I, contributing significant baseline and peak flows to the system during wet-weather events.

**FINANCIAL:**

Under the terms of the Lease Agreement as amended in 2020, LCA will provide funding for the SRP from its Allentown Division revenues or reserves. After the first \$650,000 is spent each year, additional project costs beyond that amount will be recaptured through LCA sewer rates through a Capital Cost Recovery Charge. However, in 2023, the City was awarded a H2O PA grant through a collaborative grant application process conducted with LCA, with proceeds to be used for this program, to reduce the future rate impact to City customers.

**PROJECT STATUS:**

In February 2023 the Board approved the Design and Construction Phase Engineering services for Year 1 of this Program. Working closely with the City to obtain Major Capital Improvement approvals (as required by the Lease) and outside agencies, Capital Works has obtained all approvals for the SRP Year 1 Construction Phase.



**THIS APPROVAL - CONSTRUCTION PHASE SRP YEAR 1:**

The Allentown Division SRP Year 1 project will include rehabilitation of existing sewer main lines, including cleaning, inspecting, and cured-in-place pipe lining of approximately 22,000 linear feet of sewer mains. Additionally, 150 sewer laterals will be grouted along with rehabilitation of approximately 1,200 vertical feet of existing sewer manholes by means of cementitious and epoxy lining.

**BIDDING SUMMARY - CONSTRUCTION CONTRACTS**

The project was advertised for bid on December 11, 2023; a mandatory pre-bid meeting was held virtually on December 19, 2023. Bids were opened on January 23, 2024. Four bids were received. The bidding results are as shown in Table 1 below:

<b>Table 1</b>	
<b>General Construction</b>	
<b>Bidder</b>	<b>Amount</b>
<i>Vortex Services, LLC</i>	<b><i>\$2,492,297.50</i></b>
Insituform Technologies	\$2,499,060.00
Mr. Rehab, LLC	\$3,226,225.00
Mobile Dredging & Video Pipe, Inc.	\$4,370,040.00

Vortex Services, LLC, (located in Freehold, NJ) is the lowest bidder. Reference checks for Vortex Services, LLC (Vortex) have identified no issues, and the company has completed many projects of similar scope and size. In fact, Vortex completed the City's Source Reduction improvements (that was administered by LCA for years 3 and 4 of the prior City program) satisfactorily and in accordance with the contract schedule. Vortex was agreeable to work with, followed up with any issues that required correction and completed the rehabilitation work as described in the plans and specifications.

Based on reference checks and previous experience working with Vortex, LCA recommends contract award to Vortex Services, LLC.

**PROJECT SCHEDULE:**

Assuming Board approval at the February 26, 2024 meeting, Notice to Proceed will be issued by early March 2024 with an anticipated construction completion by late 2024.

# CAPITAL PROJECT AUTHORIZATION

PROJECT NO.:	AD-S-24-1	BUDGET FUND:	Allentown Div\Water\Capital
PROJECT TITLE:	Allentown Division Year 1 Source Reduction Plan - Construction Phase	PROJECT TYPE:	<input checked="" type="checkbox"/> Construction <input type="checkbox"/> Engineering Study <input type="checkbox"/> Equipment Purchase <input type="checkbox"/> Amendment No.
THIS AUTHORIZATION	\$ 2,717,297.50		

## DESCRIPTION AND BENEFITS:

After submission of the Regional Flow Management Strategy to the Environmental Protection Agency in 2018, the City of Allentown (City) initiated the Infiltration and Inflow (I&I) Source Reduction Program (SRP). Based on recommendations from Arcadis, the Kline's Island Sewer System (KISS) Flow Characterization Study and Rainfall Derived I&I (RDII) analysis were completed. Based on these studies, a new City 10-year I&I Source Reduction Program was developed. The goal of the work is the cost-effective reduction of I&I to reduce both dry-day and wet-weather flows in the KISS.

This CPA includes rehabilitation of existing sewer pipelines, including cleaning, inspecting, and cured-in-place pipe lining of approximately 22,000 linear feet of sewer mains. Additionally, 150 sewer laterals will be grouted along with rehabilitation of approximately 1,200 vertical linear feet of existing sewer manholes by means of cementitious and epoxy lining. Please reference the cover Memo for additional information.

## Construction Phase - SRP Year 1











































REQUESTED THIS AUTHORIZATION	
Construction Phase Year 1	
Staff	\$75,000
General Construction Contract – Vortex Services. LLC	\$2,492,297.50
Contingency	\$150,000
Total This Authorization	\$2,717,297.50

## REVIEW AND APPROVALS:

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

**LEHIGH COUNTY AUTHORITY  
FINANCIAL STATEMENTS  
DECEMBER 2023**

**LEHIGH COUNTY AUTHORITY  
YTD SUMMARY SCORESHEET  
DECEMBER 2023**

	<u>Sub W</u>	<u>Sub WW</u>	<u>City</u>
YTD Net income >0			
YTD Net income >= FC			
YTD Cash Flow >0			
YTD Cash Flow >= FC			
YTD DSCR >= FC			
YTD DSCR >= 1.20			
YTD Operating Ratio >= 1.00			
YTD Operating Ratio >= Budget Target			
YTD Days Cash on Hand >= 180.0			
YTD Operating Revenues >= FC			
YTD Operating Expenses <= FC			
FY FC Net Income >= Budget			
FY FC Cash Flows >=Budget			
FY FC DSCR >= Budget			
TOTAL GREEN	<u><u>12</u></u>	<u><u>8</u></u>	<u><u>14</u></u>

LEHIGH COUNTY AUTHORITY  
FINANCIAL STATEMENTS - SUMMARY  
For the Period Ended December 31, 2023

	Consolidated Financial Statements														
	Month					Year To Date					FULL YEAR				
	Actual	Q4 FC	Prior Year	FC Var	PY Var	Actual	Q4 FC	Prior Year	FC Var	PY Var	Actual	Budget	Prior Year	Bud Var	PY Var
Income Statement															
Suburban Water	380,989	335,279	571,920	45,710	(190,931)	3,663,457	3,149,308	4,138,513	514,149	(475,056)	3,663,457	2,169,036	4,138,513	1,494,421	(475,056)
Suburban Wastewater	192,733	672,955	(1,826,095)	(480,222)	2,018,828	294,374	(107,781)	(455,127)	402,155	749,501	294,374	2,150,192	(455,127)	(1,855,818)	749,501
City Division	1,240,852	(7,468,396)	(2,266,119)	8,709,248	3,506,972	15,513,265	6,483,473	6,545,431	9,029,792	8,967,834	15,513,265	4,780,898	6,545,431	10,732,367	8,967,834
Total LCA	1,814,574	(6,460,162)	(3,520,295)	8,274,736	5,334,868	19,471,096	9,525,000	10,228,817	9,946,095	9,242,278	19,471,096	9,100,126	10,228,817	10,370,970	9,242,278
Cash Flow Statement															
Suburban Water	(33,944)	2,696,193	575,511	(2,730,137)	(609,455)	3,501,498	5,981,919	760,443	(2,480,422)	2,741,055	3,501,498	46,653	760,443	3,454,845	2,741,055
Suburban Wastewater	161,035	2,083,215	(597,587)	(1,922,181)	758,622	2,954,363	3,938,128	1,359,980	(983,765)	1,594,383	2,954,363	762,612	1,359,980	2,191,751	1,594,383
City Division	(8,516,816)	(10,782,108)	(6,366,324)	2,265,292	(2,150,492)	13,810,604	9,404,877	2,841,304	4,405,727	10,969,300	13,810,604	2,671,275	2,841,305	11,139,329	10,969,299
Total LCA	(8,389,725)	(6,002,700)	(6,388,401)	(2,387,025)	(2,001,324)	20,266,465	19,324,924	4,961,727	941,540	15,304,737	20,266,465	3,480,540	4,961,728	16,785,925	15,304,737
Debt Service Coverage Ratio															
Suburban Water	2.56	3.75	4.67	(1.19)	(2.10)	2.36	2.29	2.77	0.08	(0.41)	2.36	1.83	2.77	0.53	(0.41)
Suburban Wastewater	11.80	31.82	(6.77)	(20.03)	18.56	9.12	9.57	9.69	(0.45)	(0.58)	9.12	11.69	9.69	(2.58)	(0.58)
City Division	2.45	(2.73)	2.31	5.18	0.13	2.48	2.04	2.22	0.44	0.26	2.48	2.10	2.62	0.37	(0.14)

LEHIGH COUNTY AUTHORITY  
CONSOLIDATED FINANCIAL STATEMENTS  
For the Period Ended December 31, 2023

STATEMENTS OF ACTIVITIES	Consolidated Financial Statements															
	Month				Year To Date				Q4 FULL YEAR FORECAST				Full Year Budget			
	Sub W	Sub WW	City	LCA	Sub W	Sub WW	City	LCA	Sub W	Sub WW	City	LCA	Sub W	Sub WW	City	LCA
<b>Operating Revenues:</b>																
User Charges	1,323,486	1,743,713	4,553,394	7,620,593	16,491,972	18,265,332	51,815,936	86,573,241	16,660,450	18,962,767	50,661,734	86,284,950	16,287,500	21,822,513	50,680,860	88,790,873
Connection & System Charges	206,776	34,348	310,279	551,404	730,402	1,371,193	4,639,907	6,741,501	702,066	1,764,688	4,426,588	6,893,341	680,700	875,600	4,096,600	5,652,900
Other Miscellaneous Revenues	3,075	60	38,267	41,402	54,989	585	182,595	238,169	(37,319)	2,380	116,207	81,269	31,800	2,300	69,300	103,400
<b>Total Operating Revenues</b>	<b>1,533,337</b>	<b>1,778,121</b>	<b>4,901,941</b>	<b>8,213,400</b>	<b>17,277,363</b>	<b>19,637,111</b>	<b>56,638,437</b>	<b>93,552,911</b>	<b>17,325,198</b>	<b>20,729,834</b>	<b>55,204,529</b>	<b>93,259,561</b>	<b>17,000,000</b>	<b>22,700,413</b>	<b>54,846,760</b>	<b>94,547,173</b>
<b>Operating Expenses:</b>																
Personnel	316,297	145,543	986,671	1,448,511	3,810,995	1,763,260	11,285,910	16,860,164	3,758,691	1,534,506	11,686,498	16,979,695	3,838,376	1,739,145	12,818,583	18,396,104
Shared Services - General & Administrative	53,535	24,639	146,855	225,029	722,146	334,070	2,038,460	3,094,677	664,903	258,466	1,899,435	2,822,804	847,837	353,525	2,197,452	3,398,813
Utilities	52,260	19,041	122,946	194,247	489,997	238,267	1,898,483	2,626,747	438,600	262,692	2,172,623	2,873,915	516,389	312,787	2,018,173	2,847,348
Materials and Supplies	88,402	48,503	432,095	568,999	664,465	391,409	3,218,805	4,274,679	848,395	466,691	3,145,206	4,460,293	887,370	324,100	2,621,000	3,832,470
Miscellaneous Services	331,588	632,754	488,914	1,453,257	3,900,285	6,959,869	2,239,095	13,099,249	4,019,711	7,430,528	2,129,759	13,579,998	4,610,690	7,212,206	2,112,700	13,935,596
Treatment and Transportation	-	275,000	-	275,000	-	3,903,664	11,307	3,914,971	-	4,232,139	12,600	4,244,739	-	4,293,345	14,318	4,307,663
Depreciation and Amortization	258,365	508,303	519,750	1,286,418	3,093,402	6,170,072	6,221,961	15,485,436	3,479,721	6,900,739	6,403,161	16,783,622	3,023,000	6,221,900	6,160,000	15,404,900
Major Maintenance Expenses	-	(94)	(117,514)	(117,608)	-	2,611	726,076	728,688	-	2,683	4,000,000	4,002,683	-	25,200	4,000,000	4,025,200
Other Miscellaneous	-	-	-	-	-	-	-	-	41,534	-	-	41,534	41,600	-	-	41,600
<b>Total Operating Expenses</b>	<b>1,100,446</b>	<b>1,653,689</b>	<b>2,579,718</b>	<b>5,333,854</b>	<b>12,681,289</b>	<b>19,763,223</b>	<b>27,640,097</b>	<b>60,084,609</b>	<b>13,251,555</b>	<b>21,088,445</b>	<b>31,449,282</b>	<b>65,789,281</b>	<b>13,765,262</b>	<b>20,482,207</b>	<b>31,942,225</b>	<b>66,189,694</b>
<b>Net Operating Profit</b>	<b>432,891</b>	<b>124,432</b>	<b>2,322,223</b>	<b>2,879,546</b>	<b>4,596,074</b>	<b>(126,113)</b>	<b>28,998,340</b>	<b>33,468,302</b>	<b>4,073,643</b>	<b>(358,610)</b>	<b>23,755,247</b>	<b>27,470,279</b>	<b>3,234,738</b>	<b>2,218,206</b>	<b>22,904,535</b>	<b>28,357,479</b>
<b>Non-Operating Income (Expense)</b>																
Interest Income	30,616	46,670	342,986	420,272	339,479	454,362	3,466,498	4,260,340	224,041	359,001	1,946,291	2,529,333	64,782	85,128	128,661	278,572
Interest (Expense)	(89,253)	(12,914)	(1,424,042)	(1,526,209)	(1,299,277)	(155,841)	(16,938,519)	(18,393,637)	(1,161,255)	(157,427)	(19,212,865)	(20,531,547)	(1,130,484)	(153,143)	(18,252,298)	(19,535,925)
Other Miscellaneous	6,734	34,544	(314)	40,964	27,180	121,966	(13,054)	136,092	12,880	49,256	(5,200)	56,935	-	-	-	-
<b>Net Non-Operating Income (Expense)</b>	<b>(51,902)</b>	<b>68,301</b>	<b>(1,081,371)</b>	<b>(1,064,972)</b>	<b>(932,618)</b>	<b>420,487</b>	<b>(13,485,075)</b>	<b>(13,997,206)</b>	<b>(924,334)</b>	<b>250,289</b>	<b>(17,271,774)</b>	<b>(17,945,279)</b>	<b>(1,065,702)</b>	<b>(68,015)</b>	<b>(18,123,637)</b>	<b>(19,257,353)</b>
<b>Net Income (Loss)</b>	<b>380,989</b>	<b>192,733</b>	<b>1,240,852</b>	<b>1,814,574</b>	<b>3,663,457</b>	<b>294,374</b>	<b>15,513,265</b>	<b>19,471,096</b>	<b>3,149,308</b>	<b>(107,781)</b>	<b>6,483,473</b>	<b>9,525,000</b>	<b>2,169,036</b>	<b>2,150,192</b>	<b>4,780,898</b>	<b>9,100,126</b>
<b>CASH FLOW STATEMENT</b>																
<b>Cash Flows From Operating Activities</b>																
Operating Revenues	1,533,337	1,778,121	4,901,941	8,213,400	17,277,363	19,637,111	56,638,437	93,552,911	17,325,198	20,729,834	55,204,529	93,259,561	17,000,000	22,700,413	54,846,760	94,547,173
Operating Expenses (ex D&A)	(842,082)	(1,145,480)	(2,177,482)	(4,165,044)	(9,587,887)	(13,590,539)	(20,692,060)	(43,870,486)	(9,771,834)	(14,185,022)	(21,046,121)	(45,002,976)	(10,742,262)	(14,235,107)	(21,782,225)	(46,759,594)
Non-Cash Working Capital Changes	154,939	931,688	(159,172)	927,456	(2,565,223)	(545,925)	(1,309,760)	(4,420,908)	4,447	(7,280)	(341,896)	(344,729)	(0)	(25,200)	0	(25,200)
<b>Net Cash Provided by (Used in) Operating Activities</b>	<b>846,195</b>	<b>1,564,329</b>	<b>2,565,288</b>	<b>4,975,811</b>	<b>5,124,253</b>	<b>5,500,646</b>	<b>34,636,617</b>	<b>45,261,517</b>	<b>7,557,811</b>	<b>6,537,533</b>	<b>33,816,511</b>	<b>47,911,856</b>	<b>6,257,738</b>	<b>8,440,106</b>	<b>33,064,535</b>	<b>47,762,379</b>
<b>Cash Flows From Financing Activities</b>																
Capital Contributions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds New Borrowing	-	-	-	-	6,950,000	-	1,371,118	8,321,118	6,950,000	-	1,371,118	8,321,118	3,950,000	-	1,200,000	5,150,000
Interest Payments	(904)	(12,243)	(5,951,378)	(5,964,524)	(1,298,151)	(147,555)	(11,695,732)	(13,141,437)	(1,156,137)	(150,059)	(11,717,006)	(13,023,201)	(1,130,484)	(153,143)	(11,788,844)	(13,072,471)
Principal Payments	(6,339)	(48,569)	(2,201,768)	(2,256,675)	(2,010,541)	(576,341)	(2,222,407)	(4,809,288)	(2,252,950)	(576,248)	(3,352,360)	(6,181,558)	(2,344,383)	(575,980)	(3,342,077)	(6,262,440)
<b>Net Cash Provided by (Used in) Financing Activities</b>	<b>(7,243)</b>	<b>(60,811)</b>	<b>(8,153,145)</b>	<b>(8,221,199)</b>	<b>3,641,309</b>	<b>(723,896)</b>	<b>(12,547,021)</b>	<b>(9,629,608)</b>	<b>3,540,913</b>	<b>(726,306)</b>	<b>(13,698,247)</b>	<b>(10,883,641)</b>	<b>475,133</b>	<b>(729,123)</b>	<b>(13,930,921)</b>	<b>(14,184,911)</b>
<b>Cash Flows from Capital and Related Activities</b>																
Non-Operating Income (Expenses)	6,734	34,544	(314)	40,964	27,180	121,966	(1,374,234)	(1,225,088)	12,880	49,256	(1,366,380)	(1,304,245)	-	-	(1,400,000)	(1,400,000)
Capital Expenditures, net	(910,247)	(1,677,697)	(3,271,630)	(5,859,574)	(5,639,724)	(4,435,889)	(10,371,257)	(20,446,870)	(5,362,726)	(4,063,529)	(11,293,298)	(20,719,552)	(6,751,000)	(7,033,500)	(15,191,000)	(28,975,500)
<b>Net Cash Provided By (Used In) Capital and Related Activities</b>	<b>(903,513)</b>	<b>(1,643,153)</b>	<b>(3,271,944)</b>	<b>(5,818,610)</b>	<b>(5,612,543)</b>	<b>(4,313,924)</b>	<b>(11,745,491)</b>	<b>(21,671,958)</b>	<b>(5,349,846)</b>	<b>(4,014,273)</b>	<b>(12,659,678)</b>	<b>(22,023,797)</b>	<b>(6,751,000)</b>	<b>(7,033,500)</b>	<b>(16,591,000)</b>	<b>(30,375,500)</b>
<b>Cash Flows From Investing Activities</b>																
Investments Converting To Cash	-	499,000	-	499,000	988,000	6,129,174	-	7,117,174	988,000	5,875,174	-	6,863,174	-	-	-	-
Purchased Investments	-	(245,000)	-	(245,000)	(979,000)	(4,092,000)	-	(5,071,000)	(979,000)	(4,093,000)	-	(5,072,000)	-	-	-	-
Interest Income	30,616	46,670	342,986	420,272	339,479	454,362	3,466,498	4,260,340	224,041	359,001	1,946,291	2,529,333	64,782	85,128	128,661	278,572
<b>Net Cash Provided By (Used In) Investing Activities</b>	<b>30,616</b>	<b>300,670</b>	<b>342,986</b>	<b>674,272</b>	<b>348,479</b>	<b>2,491,536</b>	<b>3,466,498</b>	<b>6,306,514</b>	<b>233,041</b>	<b>2,141,175</b>	<b>1,946,291</b>	<b>4,320,507</b>	<b>64,782</b>	<b>85,128</b>	<b>128,661</b>	<b>278,572</b>
<b>FUND NET CASH FLOWS</b>	<b>(33,944)</b>	<b>161,035</b>	<b>(8,516,816)</b>	<b>(8,389,725)</b>	<b>3,501,498</b>	<b>2,954,363</b>	<b>13,810,604</b>	<b>20,266,465</b>	<b>5,981,919</b>	<b>3,938,128</b>	<b>9,404,877</b>	<b>19,324,924</b>	<b>46,653</b>	<b>762,612</b>	<b>2,671,275</b>	<b>3,480,540</b>
<b>DEBT SERVICE RATIO</b>																
<b>Debt Service Ratio (Indenture Based)</b>																
Total Operating Revenues	1,323,486	1,743,713	4,553,394	7,620,593	16,491,972	18,265,332	51,815,936	86,573,241	16,660,450	18,962,767	50,661,734	86,284,950	16,287,500	21,822,513	50,680,860	88,790,873
Total Operating Expenses (Cash Based)	(842,082)	(1,145,386)	(2,059,968)	(4,047,435)	(9,587,887)	(13,593,151)	(21,418,136)	(44,599,174)	(9,771,834)	(14,187,705)	(21,046,121)	(45,005,659)	(10,742,262)	(14,260,307)	(21,782,225)	(46,784,794)
Interest Income	30,616	46,670	342,986	420,272	339,479	454,362	3,466,498	4,260,340	224,041	359,001	1,946,291	2,529,333	64,782	85,128	128,661	278,572
Annual Lease Payment (City)	-	-	(113,865)	(113,865)	-	-	(1,366,380)	(1,366,380)	-	-	(1,366,380)	(1,366,380)	-	-	(1,400,000)	(1,400,000)
Total Non-Operating Revenues (Expenses)	216,586	68,952	348,233	633,770	812,571	1,493,744	4,809,447	7,115,762	719,161	1,816,323	4,537,595	7,073,079	754,100	877,900	4,165,900	5,797,900
<b>Cash Available For Debt Service</b>	<b>728,606</b>	<b>713,949</b>	<b>3,070,780</b>	<b>4,513,336</b>	<b>8,056,136</b>	<b>6,620,288</b>	<b>37,307,365</b>	<b>51,983,789</b>	<b>7,831,818</b>	<b>6,950,386</b>	<b>34,733,118</b>	<b>49,515,322</b>	<b>6,364,120</b>	<b>8,525,235</b>	<b>31,793,196</b>	<b>46,682,551</b>
Interest Paid	96,345	12,505	976,417	1,085,267	1,156,137	150,059	11,717,006	13,023,201	1,156,137	150,059	11,717,006	13,023,201	1,130,484	153,143	11,788,844	13,072,471
Debt Retirement (Principal Payments)	187,746	48,021	279,363	515,130	2,252,950	576,248	3,352,360	6,181,558	2,252,950	576,248	3,352,360	6,181,558	2,344,383	575,980	3,342,077	6,262,440
<b>Total Debt Service</b>	<b>284,091</b>	<b>60,526</b>	<b>1,255,780</b>	<b>1,600,397</b>	<b>3,409,087</b>	<b>726,306</b>	<b>15,069,365</b>	<b>19,204,759</b>	<b>3,409,087</b>	<b>726,306</b>	<b>15,069,365</b>	<b>19,204,759</b>	<b>3,474,867</b>	<b>729,123</b>	<b>15,130,921</b>	<b>19,334,911</b>
<b>Debt Service Ratio</b>	<b>2.56</b>	<b>11.80</b>	<b>2.45</b>	<b>2.82</b>	<b>2.36</b>	<b>9.12</b>	<b>2.48</b>	<b>2.71</b>	<b>2.30</b>	<b>9.57</b>	<b>2.30</b>	<b>2.58</b>	<b>1.83</b>	<b>11.69</b>	<b>2.10</b>	<b>2.41</b>

**LEHIGH COUNTY AUTHORITY**  
**FINANCIAL STATEMENTS - SUBURBAN WATER**  
**For the Period Ended December 31, 2023**

STATEMENTS OF ACTIVITIES	Suburban - Water														
	Month					Year To Date					Full Year				
	Actual	Q4 FC	Prior Year	FC Var	PY Var	Actual	Q4 FC	Prior Year	FC Var	PY Var	Actual	Budget	Prior Year	Bud Var	PY Var
Operating Revenues:															
User Charges	1,323,486	1,864,993	2,199,212	(541,507)	(875,726)	16,491,972	16,660,450	16,317,932	(168,478)	174,041	16,491,972	16,287,500	16,317,932	204,472	174,041
Connection & System Charges	206,776	247,193	95,076	(40,417)	111,701	730,402	702,066	653,032	28,335	77,370	730,402	680,700	653,032	49,702	77,370
Other Miscellaneous Revenues	3,075	(81,352)	(428,840)	84,427	431,915	54,989	(37,319)	173,318	92,308	(118,329)	54,989	31,800	173,318	23,189	(118,329)
Total Operating Revenues	1,533,337	2,030,834	1,865,447	(497,497)	(332,110)	17,277,363	17,325,198	17,144,282	(47,834)	133,082	17,277,363	17,000,000	17,144,282	277,363	133,082
Operating Expenses:															
Personnel	316,297	261,573	(10,684)	(54,723)	(326,981)	3,810,995	3,758,691	3,020,805	(52,303)	(790,190)	3,810,995	3,838,376	3,020,805	27,382	(790,190)
Shared Services - General & Administrative	53,535	5,897	47,711	(47,638)	(5,824)	722,146	664,903	553,636	(57,243)	(168,510)	722,146	847,837	553,636	125,690	(168,510)
Utilities	52,260	1,501	24,681	(50,759)	(27,579)	489,997	438,600	481,997	(51,397)	(8,000)	489,997	516,389	481,997	26,392	(8,000)
Materials and Supplies	88,402	223,496	123,717	135,094	35,315	664,465	848,395	860,080	183,930	195,615	664,465	887,370	860,080	222,905	195,615
Miscellaneous Services	331,588	387,468	596,897	55,880	265,309	3,900,285	4,019,711	3,664,554	119,426	(235,731)	3,900,285	4,610,690	3,664,554	710,405	(235,731)
Treatment and Transportation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Depreciation and Amortization	258,365	644,685	894,511	386,320	636,146	3,093,402	3,479,721	3,665,828	386,320	572,426	3,093,402	3,023,000	3,665,828	(70,402)	572,426
Major Maintenance Expenses	-	-	(9,579)	-	(9,579)	-	-	-	-	-	-	-	-	-	-
Other Miscellaneous	-	41,534	156,449	41,534	156,449	-	41,534	156,699	41,534	156,699	-	41,600	156,699	41,600	156,699
Total Operating Expenses	1,100,446	1,566,153	1,823,702	465,706	723,256	12,681,289	13,251,555	12,403,599	570,266	(277,690)	12,681,289	13,765,262	12,403,599	1,083,973	(277,690)
Net Operating Profit	432,891	464,682	41,745	(31,791)	391,146	4,596,074	4,073,643	4,740,683	522,432	(144,609)	4,596,074	3,234,738	4,740,683	1,361,336	(144,609)
Non-Operating Income (Expense)															
Interest Income	30,616	(42,277)	17,485	72,894	13,132	339,479	224,041	103,451	115,439	236,029	339,479	64,782	103,451	274,697	236,029
Interest (Expense)	(89,253)	(86,724)	250,466	(2,529)	(339,719)	(1,299,277)	(1,161,255)	(847,133)	(138,023)	(452,144)	(1,299,277)	(1,130,484)	(847,133)	(168,793)	(452,144)
Other Miscellaneous	6,734	(402)	262,225	7,136	(255,490)	27,180	12,880	141,512	14,301	(114,332)	27,180	-	141,512	27,180	(114,332)
Net Non-Operating Income (Expense)	(51,902)	(129,403)	530,175	77,501	(582,077)	(932,618)	(924,334)	(602,170)	(8,283)	(330,448)	(932,618)	(1,065,702)	(602,170)	133,084	(330,448)
Net Income (Loss)	380,989	335,279	571,920	45,710	(190,931)	3,663,457	3,149,308	4,138,513	514,149	(475,056)	3,663,457	2,169,036	4,138,513	1,494,421	(475,056)
CASH FLOW STATEMENT															
Cash Flows From Operating Activities															
Operating Revenues	1,533,337	2,030,834	1,865,447	(497,497)	(332,110)	17,277,363	17,325,198	17,144,282	(47,834)	133,082	17,277,363	17,000,000	17,144,282	277,363	133,082
Operating Expenses (ex D&A)	(842,082)	(921,468)	(929,191)	79,387	87,109	(9,587,887)	(9,771,834)	(8,737,771)	183,946	(850,117)	(9,587,887)	(10,742,262)	(8,737,771)	1,154,375	(850,117)
Non-Cash Working Capital Changes	154,939	2,725,100	2,171,270	(2,570,161)	(2,016,331)	(2,565,223)	4,448	675,196	(2,569,671)	(3,240,419)	(2,565,223)	(0)	675,196	(2,565,223)	(3,240,419)
Net Cash Provided by (Used in) Operating Activities	846,195	3,834,466	3,107,526	(2,988,271)	(2,261,331)	5,124,253	7,557,812	9,081,707	(2,433,559)	(3,957,454)	5,124,253	6,257,738	9,081,707	(1,133,485)	(3,957,454)
Cash Flows From Financing Activities															
Capital Contributions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds New Borrowing	-	-	-	-	-	6,950,000	6,950,000	-	-	6,950,000	6,950,000	3,950,000	-	3,000,000	6,950,000
Interest Payments	(904)	(941)	(999)	37	95	(1,298,151)	(1,156,137)	(1,200,136)	(142,014)	(98,015)	(1,298,151)	(1,130,484)	(1,200,136)	(167,667)	(98,015)
Principal Payments	(6,339)	(7,603)	(6,244)	1,264	(95)	(2,010,541)	(2,252,950)	(1,925,231)	242,410	(85,309)	(2,010,541)	(2,344,383)	(1,925,231)	333,842	(85,309)
Net Cash Provided by (Used in) Financing Activities	(7,243)	(8,544)	(7,243)	1,302	0	3,641,309	3,540,913	(3,125,367)	100,396	6,766,676	3,641,309	475,133	(3,125,367)	3,166,176	6,766,676
Cash Flows from Capital and Related Activities															
Non-Operating Income (Expenses)	6,734	(402)	8,622	7,136	(1,888)	27,180	12,880	(112,090)	14,301	139,270	27,180	-	(112,090)	27,180	139,270
Capital Expenditures, net	(910,247)	(1,087,050)	(2,550,879)	176,803	1,640,632	(5,639,724)	(5,362,726)	(5,193,258)	(276,998)	(446,466)	(5,639,724)	(6,751,000)	(5,193,258)	1,111,276	(446,466)
Net Cash Provided By (Used In) Capital and Related Activities	(903,513)	(1,087,452)	(2,542,257)	183,940	1,638,745	(5,612,543)	(5,349,846)	(5,305,348)	(262,697)	(307,196)	(5,612,543)	(6,751,000)	(5,305,347)	1,138,457	(307,196)
Cash Flows From Investing Activities															
Investments Converting To Cash	-	-	-	-	-	988,000	988,000	990,000	-	(2,000)	988,000	-	990,000	988,000	(2,000)
Purchased Investments	-	-	-	-	-	(979,000)	(979,000)	(984,000)	-	5,000	(979,000)	-	(984,000)	(979,000)	5,000
Interest Income	30,616	(42,277)	17,485	72,894	13,132	339,479	224,041	103,451	115,439	236,029	339,479	64,782	103,451	274,697	236,029
Net Cash Provided By (Used In) Investing Activities	30,616	(42,277)	17,485	72,894	13,132	348,479	233,041	109,451	115,439	239,029	348,479	64,782	109,451	283,697	239,029
FUND NET CASH FLOWS	(33,944)	2,696,193	575,511	(2,730,137)	(609,455)	3,501,498	5,981,919	760,443	(2,480,422)	2,741,055	3,501,498	46,653	760,443	3,454,845	2,741,055
DEBT SERVICE RATIO															
Debt Service Ratio (Indenture Based)															
User Charges	1,323,486	1,864,993	2,199,212	(541,507)	(875,726)	16,491,972	16,660,450	16,317,932	(168,478)	174,041	16,491,972	16,287,500	16,317,932	204,472	174,041
Operating Expenses (Cash Based)	(842,082)	(921,468)	(929,191)	79,387	87,109	(9,587,887)	(9,771,834)	(8,737,771)	183,946	(850,117)	(9,587,887)	(10,742,262)	(8,737,771)	1,154,375	(850,117)
Interest Income	30,616	(42,277)	17,485	72,894	13,132	339,479	224,041	103,451	115,439	236,029	339,479	64,782	103,451	274,697	236,029
Annual Lease Payment (City)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-Operating Revenues (Expenses)	216,586	165,439	(71,540)	51,147	288,125	812,571	677,627	967,862	134,944	(155,291)	812,571	754,100	967,862	58,471	(155,291)
Cash Available For Debt Service	728,606	1,066,687	1,215,965	(338,080)	(487,359)	8,056,136	7,790,284	8,651,474	265,851	(595,338)	8,056,136	6,364,120	8,651,474	1,692,016	(595,338)
Interest Paid	96,345	96,345	100,011	-	(3,667)	1,156,137	1,156,137	1,200,136	-	(43,999)	1,156,137	1,130,484	1,200,136	25,653	(43,999)
Debt Retirement (Principal Payments)	187,746	187,746	160,436	-	27,310	2,252,950	2,252,950	1,925,231	-	327,719	2,252,950	2,344,383	1,925,231	(91,433)	327,719
Total Debt Service	284,091	284,091	260,447	-	23,643	3,409,087	3,409,087	3,125,367	-	283,720	3,409,087	3,474,867	3,125,367	(65,780)	283,720
Debt Service Ratio	2.56	3.75	4.67	(1.19)	(2.10)	2.36	2.29	2.77	0.08	(0.41)	2.36	1.83	2.77	0.53	(0.41)

**LEHIGH COUNTY AUTHORITY**  
**VARIANCE ANALYSIS - YTD**  
**For the Period Ended December 31, 2023**

**STATEMENTS OF ACTIVITIES**

**Operating Revenues:**

User Charges  
Connection & System Charges  
Other Miscellaneous Revenues

**Total Operating Revenues**

**Operating Expenses:**

Personnel  
Shared Services - General & Administrative  
Utilities  
Materials and Supplies  
Miscellaneous Services  
Treatment and Transportation  
Depreciation and Amortization  
Major Maintenance Expenses  
Other Miscellaneous

**Total Operating Expenses**

**Net Operating Profit**

**Non-Operating Income (Expense)**

Interest Income  
Interest (Expense)  
Other Miscellaneous

**Net Non-Operating Income (Expense)**

**Net Income (Loss)**

**CASH FLOW STATEMENT**

**Cash Flows From Operating Activities**

Operating Revenues  
Operating Expenses (ex D&A)  
Non-Cash Working Capital Changes

**Net Cash Provided by (Used in) Operating Activities**

**Cash Flows From Financing Activities**

Capital Contributions  
Proceeds New Borrowing  
Interest Payments  
Principal Payments

**Net Cash Provided by (Used in) Financing Activities**

**Cash Flows from Capital and Related Activities**

Non-Operating Income (Expenses)  
Capital Expenditures, net

**Net Cash Provided By (Used In) Capital and Related Activities**

**Cash Flows From Investing Activities**

Investments Converting To Cash  
Purchased Investments  
Interest Income

**Net Cash Provided By (Used In) Investing Activities**

**FUND NET CASH FLOWS**

Suburban - Water			
Actual	Q4 FC	FC Var	Comments
16,491,972	16,660,450	(168,478)	
730,402	702,066	28,335	
54,989	(37,319)	92,308	
<b>17,277,363</b>	<b>17,325,198</b>	<b>(47,834)</b>	Lower user charges more than offset by higher system charges and higher miscellaneous
3,810,995	3,758,691	(52,303)	
722,146	664,903	(57,243)	
489,997	438,600	(51,397)	
664,465	848,395	183,930	
3,900,285	4,019,711	119,426	
-	-	-	
3,093,402	3,479,721	386,320	
-	-	-	
-	41,534	41,534	
<b>12,681,289</b>	<b>13,251,555</b>	<b>570,266</b>	Lower material & supplies, lower services, and lower D&A
<b>4,596,074</b>	<b>4,073,643</b>	<b>522,432</b>	Lower operating expenses
339,479	224,041	115,439	
(1,299,277)	(1,161,255)	(138,023)	
27,180	12,880	14,301	
<b>(932,618)</b>	<b>(924,334)</b>	<b>(8,283)</b>	Higher interest income mostly offset by higher interest expense
<b>3,663,457</b>	<b>3,149,308</b>	<b>514,149</b>	Higher net income from operations
17,277,363	17,325,198	(47,834)	
(9,587,887)	(9,771,834)	183,946	
(2,565,223)	4,448	(2,569,671)	Unfavorable reduction in Payables balances
<b>5,124,253</b>	<b>7,557,812</b>	<b>(2,433,559)</b>	Unfavorable working capital changes
-	-	-	
6,950,000	6,950,000	-	
(1,298,151)	(1,156,137)	(142,014)	
(2,010,541)	(2,252,950)	242,410	
<b>3,641,309</b>	<b>3,540,913</b>	<b>100,396</b>	Higher interest more than offset by lower principal
27,180	12,880	14,301	
(5,639,724)	(5,362,726)	(276,998)	
<b>(5,612,543)</b>	<b>(5,349,846)</b>	<b>(262,697)</b>	Higher capex
988,000	988,000	-	
(979,000)	(979,000)	-	
339,479	224,041	115,439	
<b>348,479</b>	<b>233,041</b>	<b>115,439</b>	Higher interest income
<b>3,501,498</b>	<b>5,981,919</b>	<b>(2,480,422)</b>	Lower cash from operating activities



LEHIGH COUNTY AUTHORITY  
FINANCIAL STATEMENTS - SUBURBAN WASTEWATER  
For the Period Ended December 31, 2023

STATEMENTS OF ACTIVITIES	Suburban - Wastewater														
	Month					Year To Date					Full Year				
	Actual	Q4 FC	Prior Year	FC Var	PY Var	Actual	Q4 FC	Prior Year	FC Var	PY Var	Actual	Budget	Prior Year	Bud Var	PY Var
Operating Revenues:															
User Charges	1,743,713	2,617,852	1,126,255	(874,139)	617,458	18,265,332	18,962,767	15,021,652	(697,434)	3,243,680	18,265,332	21,822,513	15,021,652	(3,557,181)	3,243,680
Connection & System Charges	34,348	518,430	(312,957)	(484,082)	347,305	1,371,193	1,764,688	3,319,169	(393,495)	(1,947,976)	1,371,193	875,600	3,319,169	495,593	(1,947,976)
Other Miscellaneous Revenues	60	6,430	4,430	(6,370)	(4,370)	585	2,380	1,585	(1,795)	(1,000)	585	2,300	1,585	(1,715)	(1,000)
Total Operating Revenues	1,778,121	3,142,712	817,728	(1,364,591)	960,393	19,637,111	20,729,834	18,342,406	(1,092,724)	1,294,705	19,637,111	22,700,413	18,342,406	(3,063,302)	1,294,705
Operating Expenses:															
Personnel	145,543	(40,388)	93	(185,931)	(145,450)	1,763,260	1,534,506	1,245,134	(228,754)	(518,126)	1,763,260	1,739,145	1,245,134	(24,116)	(518,126)
Shared Services - General & Administrative	24,639	(36,041)	17,348	(60,679)	(7,291)	334,070	258,466	225,034	(75,604)	(109,036)	334,070	353,525	225,034	19,454	(109,036)
Utilities	19,041	27,290	20,447	8,249	1,406	238,267	262,692	271,866	24,425	33,599	238,267	312,787	271,866	74,520	33,599
Materials and Supplies	48,503	89,280	75,078	40,777	26,575	391,409	466,691	339,120	75,282	(52,289)	391,409	324,100	339,120	(67,309)	(52,289)
Miscellaneous Services	632,754	854,950	577,846	222,196	(54,908)	6,959,869	7,430,528	6,503,137	470,660	(456,732)	6,959,869	7,212,206	6,503,137	252,337	(456,732)
Treatment and Transportation	275,000	335,270	512,819	60,270	237,819	3,903,664	4,232,139	2,846,176	328,475	(1,057,488)	3,903,664	4,293,345	2,846,176	389,681	(1,057,488)
Depreciation and Amortization	508,303	1,238,970	1,411,990	730,667	903,687	6,170,072	6,900,739	7,090,828	730,667	920,756	6,170,072	6,221,900	7,090,828	51,828	920,756
Major Maintenance Expenses	(94)	-	(23,830)	94	(23,736)	2,611	2,683	-	72	(2,611)	2,611	25,200	-	22,589	(2,611)
Other Miscellaneous	-	-	86,525	-	86,525	-	-	86,525	-	86,525	-	-	86,525	-	86,525
Total Operating Expenses	1,653,689	2,469,332	2,678,317	815,642	1,024,628	19,763,223	21,088,445	18,607,820	1,325,221	(1,155,403)	19,763,223	20,482,207	18,607,820	718,984	(1,155,403)
Net Operating Profit	124,432	673,380	(1,860,589)	(548,948)	1,985,021	(126,113)	(358,610)	(265,414)	232,498	139,301	(126,113)	2,218,206	(265,414)	(2,344,319)	139,301
Non-Operating Income (Expense)															
Interest Income	46,670	14,270	21,824	32,400	24,846	454,362	359,001	130,269	95,361	324,093	454,362	85,128	130,269	369,234	324,093
Interest (Expense)	(12,914)	(14,249)	(17,300)	1,335	4,386	(155,841)	(157,427)	(185,935)	1,586	30,094	(155,841)	(153,143)	(185,935)	(2,698)	30,094
Other Miscellaneous	34,544	(447)	29,969	34,991	4,575	121,966	49,256	(134,047)	72,710	256,012	121,966	-	(134,047)	121,966	256,012
Net Non-Operating Income (Expense)	68,301	(426)	34,494	68,726	33,807	420,487	250,829	(189,713)	169,657	610,200	420,487	(68,015)	(189,713)	488,501	610,200
Net Income (Loss)	192,733	672,955	(1,826,095)	(480,222)	2,018,828	294,374	(107,781)	(455,127)	402,155	749,501	294,374	2,150,192	(455,127)	(1,855,818)	749,501
CASH FLOW STATEMENT															
Cash Flows From Operating Activities															
Operating Revenues	1,778,121	3,142,712	817,728	(1,364,591)	960,393	19,637,111	20,729,834	18,342,406	(1,092,724)	1,294,705	19,637,111	22,700,413	18,342,406	(3,063,302)	1,294,705
Operating Expenses (ex D&A)	(1,145,480)	(1,230,362)	(1,290,156)	84,881	144,676	(13,590,539)	(14,185,022)	(11,516,992)	594,483	(2,073,547)	(13,590,539)	(14,235,107)	(11,516,992)	644,567	(2,073,547)
Non-Cash Working Capital Changes	931,688	1,470,386	308,532	(538,698)	623,156	(545,925)	(7,280)	315,572	(538,645)	(861,497)	(545,925)	(25,200)	907,512	(520,725)	(1,453,437)
Net Cash Provided by (Used in) Operating Activities	1,564,329	3,382,736	(163,897)	(1,818,408)	1,728,226	5,500,646	6,537,532	7,140,986	(1,036,886)	(1,640,340)	5,500,646	8,440,106	7,732,926	(2,939,460)	(2,232,280)
Cash Flows From Financing Activities															
Capital Contributions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds New Borrowing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Payments	(12,243)	(14,134)	(13,039)	1,892	796	(147,555)	(150,059)	(141,271)	2,504	(6,284)	(147,555)	(153,143)	(141,271)	5,588	(6,284)
Principal Payments	(48,569)	(48,538)	(47,396)	(31)	(1,173)	(576,341)	(576,248)	(562,430)	(93)	(13,911)	(576,341)	(575,980)	(562,430)	(361)	(13,911)
Net Cash Provided by (Used in) Financing Activities	(60,811)	(62,672)	(60,435)	1,861	(377)	(723,896)	(726,306)	(703,701)	2,411	(20,195)	(723,896)	(729,123)	(703,701)	5,227	(20,195)
Cash Flows from Capital and Related Activities															
Non-Operating Income (Expenses)	34,544	(447)	29,969	34,991	4,575	121,966	49,256	(134,047)	72,710	256,012	121,966	-	(134,047)	121,966	256,012
Capital Expenditures, net	(1,677,697)	(1,250,672)	(425,049)	(427,025)	(1,252,648)	(4,435,889)	(4,063,529)	(3,081,527)	(372,360)	(1,354,362)	(4,435,889)	(7,033,500)	(3,673,467)	2,597,611	(762,422)
Net Cash Provided By (Used In) Capital and Related Activities	(1,643,153)	(1,251,119)	(395,080)	(392,034)	(1,248,073)	(4,313,924)	(4,014,273)	(3,215,573)	(299,650)	(1,098,350)	(4,313,924)	(7,033,500)	(3,807,514)	2,719,576	(506,410)
Cash Flows From Investing Activities															
Investments Converting To Cash	499,000	494,000	-	5,000	499,000	6,129,174	5,875,174	2,906,000	254,000	3,223,174	6,129,174	-	2,906,000	6,129,174	3,223,174
Purchased Investments	(245,000)	(494,000)	-	249,000	(245,000)	(4,092,000)	(4,093,000)	(4,898,000)	1,000	806,000	(4,092,000)	-	(4,898,000)	(4,092,000)	806,000
Interest Income	46,670	14,270	21,824	32,400	24,846	454,362	359,001	130,269	95,361	324,093	454,362	85,128	130,269	369,234	324,093
Net Cash Provided By (Used In) Investing Activities	300,670	14,270	21,824	286,400	278,846	2,491,536	2,141,175	(1,861,731)	350,361	4,353,267	2,491,536	85,128	(1,861,731)	2,406,408	4,353,267
FUND NET CASH FLOWS	161,035	2,083,215	(597,587)	(1,922,181)	758,622	2,954,363	3,938,128	1,359,980	(983,765)	1,594,383	2,954,363	762,612	1,359,980	2,191,751	1,594,383
DEBT SERVICE RATIO															
Debt Service Ratio (Indenture Based)															
User Charges	1,743,713	2,617,852	1,126,255	(874,139)	617,458	18,265,332	18,962,767	15,021,652	(697,434)	3,243,680	18,265,332	21,822,513	15,021,652	(3,557,181)	3,243,680
Operating Expenses (Cash Based)	(1,145,386)	(1,230,362)	(1,266,326)	84,975	120,940	(13,593,151)	(14,187,705)	(11,516,992)	594,555	(2,076,159)	(13,593,151)	(14,260,307)	(11,516,992)	667,156	(2,076,159)
Interest Income	46,670	14,270	21,824	32,400	24,846	454,362	359,001	130,269	95,361	324,093	454,362	85,128	130,269	369,234	324,093
Annual Lease Payment (City)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-Operating Revenues (Expenses)	68,952	524,413	(278,558)	(455,461)	347,510	1,493,744	1,816,323	3,186,707	(322,579)	(1,692,964)	1,493,744	877,900	3,186,707	615,844	(1,692,964)
Cash Available For Debt Service	713,949	1,926,174	(396,805)	(1,212,224)	1,110,755	6,620,288	6,950,386	6,821,636	(330,099)	(201,348)	6,620,288	8,525,235	6,821,636	(1,904,947)	(201,348)
Interest Paid	12,296	12,296	11,773	-	524	147,555	147,555	141,271	-	6,284	147,555	153,143	141,271	(5,588)	6,284
Debt Retirement (Principal Payments)	48,028	48,028	46,869	-	1,159	576,341	576,341	562,430	-	13,911	576,341	575,980	562,430	361	13,911
Total Debt Service	60,325	60,325	58,642	-	1,683	723,896	723,896	703,701	-	20,195	723,896	729,123	703,701	(5,227)	20,195
Debt Service Ratio	11.84	31.93	(6.77)	(20.10)	18.60	9.15	9.60	9.69	(0.46)	(0.55)	9.15	11.69	9.69	(2.55)	(0.55)

**LEHIGH COUNTY AUTHORITY**  
**VARIANCE ANALYSIS - YTD**  
**For the Period Ended December 31, 2023**

**STATEMENTS OF ACTIVITIES**

**Operating Revenues:**

User Charges  
Connection & System Charges  
Other Miscellaneous Revenues

**Total Operating Revenues**

**Operating Expenses:**

Personnel  
Shared Services - General & Administrative  
Utilities  
Materials and Supplies  
Miscellaneous Services  
Treatment and Transportation  
Depreciation and Amortization  
Major Maintenance Expenses  
Other Miscellaneous

**Total Operating Expenses**

**Net Operating Profit**

**Non-Operating Income (Expense)**

Interest Income  
Interest (Expense)  
Other Miscellaneous

**Net Non-Operating Income (Expense)**

**Net Income (Loss)**

**CASH FLOW STATEMENT**

**Cash Flows From Operating Activities**

Operating Revenues  
Operating Expenses (ex D&A)  
Non-Cash Working Capital Changes

**Net Cash Provided by (Used in) Operating Activities**

**Cash Flows From Financing Activities**

Capital Contributions  
Proceeds New Borrowing  
Interest Payments  
Principal Payments

**Net Cash Provided by (Used in) Financing Activities**

**Cash Flows from Capital and Related Activities**

Non-Operating Income (Expenses)  
Capital Expenditures, net

**Net Cash Provided By (Used In) Capital and Related Activities**

**Cash Flows From Investing Activities**

Investments Converting To Cash  
Purchased Investments  
Interest Income

**Net Cash Provided By (Used In) Investing Activities**

**FUND NET CASH FLOWS**

Suburban - Wastewater			
Actual	Q4 FC	FC Var	Comments
18,265,332	18,962,767	(697,434)	
1,371,193	1,764,688	(393,495)	
585	2,380	(1,795)	
<b>19,637,111</b>	<b>20,729,834</b>	<b>(1,092,724)</b>	<b>Lower user charges along with lower system charges</b>
1,763,260	1,534,506	(228,754)	
334,070	258,466	(75,604)	
238,267	262,692	24,425	
391,409	466,691	75,282	
6,959,869	7,430,528	470,660	
3,903,664	4,232,139	328,475	
6,170,072	6,900,739	730,667	
2,611	2,683	72	
-	-	-	
<b>19,763,223</b>	<b>21,088,445</b>	<b>1,325,221</b>	<b>Lower material &amp; supplies, lower services, lower T&amp;T, lower D&amp;A</b>
<b>(126,113)</b>	<b>(358,610)</b>	<b>232,498</b>	<b>Lower operating expenses more than offset lower operating revenues</b>
454,362	359,001	95,361	
(155,841)	(157,427)	1,586	
121,966	49,256	72,710	
<b>420,487</b>	<b>250,829</b>	<b>169,657</b>	<b>Higher interest income</b>
<b>294,374</b>	<b>(107,781)</b>	<b>402,155</b>	
19,637,111	20,729,834	(1,092,724)	
(13,590,539)	(14,185,022)	594,483	
(545,925)	(7,280)	(538,645)	Higher receivable balances partly offset by higher payable balances
<b>5,500,646</b>	<b>6,537,532</b>	<b>(1,036,886)</b>	<b>Lower operating revenues and unfavorable working capital movements</b>
-	-	-	
-	-	-	
(147,555)	(150,059)	2,504	
(576,341)	(576,248)	(93)	
<b>(723,896)</b>	<b>(726,306)</b>	<b>2,411</b>	
121,966	49,256	72,710	
(4,435,889)	(4,063,529)	(372,360)	
<b>(4,313,924)</b>	<b>(4,014,273)</b>	<b>(299,650)</b>	<b>Higher capex</b>
6,129,174	5,875,174	254,000	
(4,092,000)	(4,093,000)	1,000	
454,362	359,001	95,361	
<b>2,491,536</b>	<b>2,141,175</b>	<b>350,361</b>	<b>Favorable maturity conversions to cash</b>
<b>2,954,363</b>	<b>3,938,128</b>	<b>(983,765)</b>	<b>Lower cash from operating activities</b>

LEHIGH COUNTY AUTHORITY  
FINANCIAL STATEMENTS - CITY DIVISION  
For the Period Ended December 31, 2023

STATEMENTS OF ACTIVITIES	City Division														
	Month					Year To Date					Full Year				
	Actual	Q4 FC	Prior Year	FC Var	PY Var	Actual	Q4 FC	Prior Year	FC Var	PY Var	Actual	Budget	Prior Year	Bud Var	PY Var
Operating Revenues:															
User Charges	4,553,394	3,235,364	4,513,230	1,318,030	40,164	51,815,936	50,661,734	46,757,244	1,154,202	5,058,692	51,815,936	50,680,860	46,757,244	1,135,076	5,058,692
Connection & System Charges	310,279	255,940	4,273,796	54,339	(3,963,516)	4,639,907	4,426,588	8,334,971	213,319	(3,695,064)	4,639,907	4,096,600	8,334,971	543,307	(3,695,064)
Other Miscellaneous Revenues	38,267	27,230	84,334	11,037	(46,067)	182,595	116,207	214,662	66,387	(32,067)	182,595	69,300	214,662	113,295	(32,067)
Total Operating Revenues	4,901,941	3,518,534	8,871,360	1,383,407	(3,969,419)	56,638,437	55,204,529	55,306,877	1,433,909	1,331,560	56,638,437	54,846,760	55,306,877	1,791,677	1,331,560
Operating Expenses:															
Personnel	986,671	1,198,403	139,279	211,732	(847,392)	11,285,910	11,686,498	10,317,615	400,588	(968,295)	11,285,910	12,818,583	10,317,615	1,532,673	(968,295)
Shared Services - General & Administrative	146,855	55,330	142,508	(91,525)	(4,347)	2,038,460	1,899,435	1,605,755	(139,025)	(432,705)	2,038,460	2,197,452	1,605,755	158,992	(432,705)
Utilities	122,946	344,190	210,030	221,244	87,084	1,898,483	2,172,623	1,802,290	274,140	(96,193)	1,898,483	2,018,173	1,802,290	119,690	(96,193)
Materials and Supplies	432,095	480,700	348,727	48,605	(83,368)	3,218,805	3,145,206	2,227,858	(73,599)	(990,948)	3,218,805	2,621,000	2,227,858	(597,805)	(990,948)
Miscellaneous Services	488,914	529,907	468,015	40,992	(20,899)	2,239,095	2,129,759	1,807,096	(109,336)	(431,999)	2,239,095	2,112,700	1,807,096	(126,395)	(431,999)
Treatment and Transportation						11,307	12,600	11,594	1,293	287	11,307	14,318	11,594	3,011	287
Depreciation and Amortization	519,750	700,950	738,732	181,200	218,982	6,221,961	6,403,161	6,492,068	181,200	270,107	6,221,961	6,160,000	6,492,068	(61,961)	270,107
Major Maintenance Expenses	(117,514)	3,698,812	(758,381)	3,816,326	(640,868)	726,076	4,000,000	-	3,273,924	(726,076)	726,076	4,000,000	5,708,208	3,273,924	4,982,131
Other Miscellaneous	-	-	5,694,845	-	5,694,845	-	-	5,708,208	-	5,708,208	-	-	-	-	-
Total Operating Expenses	2,579,718	7,008,291	6,983,754	4,428,573	4,404,036	27,640,097	31,449,282	29,972,483	3,809,184	2,332,386	27,640,097	31,942,225	29,972,483	4,302,128	2,332,386
Net Operating Profit	2,322,223	(3,489,757)	1,887,606	5,811,980	434,617	28,998,340	23,755,247	25,334,393	5,243,093	3,663,946	28,998,340	22,904,535	25,334,393	6,093,805	3,663,946
Non-Operating Income (Expense)															
Interest Income	342,986	(527,115)	211,896	870,101	131,089	3,466,498	1,946,291	914,680	1,520,208	2,551,818	3,466,498	128,661	914,680	3,337,837	2,551,818
Interest (Expense)	(1,424,042)	(3,451,523)	(4,365,622)	2,027,481	2,941,579	(16,938,519)	(19,212,865)	(19,703,643)	2,274,345	2,765,123	(16,938,519)	(18,252,298)	(19,703,643)	1,313,778	2,765,123
Other Miscellaneous	(314)	-	-	(314)	(314)	(13,054)	(5,200)	-	(7,854)	(13,054)	(13,054)	-	-	(13,054)	(13,054)
Net Non-Operating Income (Expense)	(1,081,371)	(3,978,638)	(4,153,725)	2,897,268	3,072,355	(13,485,075)	(17,271,774)	(18,788,962)	3,786,699	5,303,887	(13,485,075)	(18,123,637)	(18,788,962)	4,638,561	5,303,887
Net Income (Loss)	1,240,852	(7,468,396)	(2,266,119)	8,709,248	3,506,972	15,513,265	6,483,473	6,545,431	9,029,792	8,967,834	15,513,265	4,780,898	6,545,431	10,732,367	8,967,834
CASH FLOW STATEMENT															
Cash Flows From Operating Activities															
Operating Revenues	4,901,941	3,518,534	8,871,360	1,383,407	(3,969,419)	56,638,437	55,204,529	55,306,877	1,433,909	1,331,560	56,638,437	54,846,760	55,306,877	1,791,677	1,331,560
Operating Expenses (ex D&A)	(2,177,482)	(2,608,529)	(7,003,403)	431,048	4,825,922	(20,692,060)	(21,046,121)	(23,480,415)	354,061	2,788,355	(20,692,060)	(21,782,225)	(23,480,415)	1,090,166	2,788,355
Non-Cash Working Capital Changes	(159,172)	808,032	1,575,029	(967,204)	(1,734,201)	(1,309,760)	(341,896)	(3,260,559)	(967,864)	1,950,798	(1,309,760)	0	(2,481,565)	(1,309,761)	1,171,805
Net Cash Provided by (Used in) Operating Activities	2,565,288	1,718,037	3,442,986	847,251	(877,698)	34,636,617	33,816,511	28,565,903	820,106	6,070,714	34,636,617	33,064,535	29,344,897	1,572,083	5,291,720
Cash Flows From Financing Activities															
Capital Contributions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds New Borrowing	-	-	-	-	-	1,371,118	1,371,118	-	-	1,371,118	1,371,118	1,200,000	-	171,118	1,371,118
Interest Payments	(5,951,378)	(5,974,907)	(5,914,856)	23,529	(36,522)	(11,695,732)	(11,717,006)	(11,670,361)	21,274	(25,371)	(11,695,732)	(11,788,844)	(11,670,361)	93,113	(25,371)
Principal Payments	(2,201,768)	(3,342,077)	(1,735,649)	1,140,309	(466,119)	(2,222,407)	(3,352,360)	(1,735,649)	1,129,953	(486,758)	(2,222,407)	(3,342,077)	(2,514,642)	1,119,670	292,235
Net Cash Provided by (Used in) Financing Activities	(8,153,145)	(9,316,983)	(7,650,505)	1,163,838	(502,640)	(12,547,021)	(13,698,247)	(13,406,010)	1,151,227	858,989	(12,547,021)	(13,930,921)	(14,185,003)	1,383,901	1,637,982
Cash Flows from Capital and Related Activities															
Non-Operating Income (Expenses)	(314)	-	-	(314)	(314)	(1,374,234)	(1,366,380)	(1,286,651)	(7,854)	(87,583)	(1,374,234)	(1,400,000)	(1,286,651)	25,766	(87,583)
Capital Expenditures, net	(3,271,630)	(2,656,046)	(2,370,701)	(615,584)	(900,929)	(10,371,257)	(11,293,298)	(11,946,618)	922,041	1,575,361	(10,371,257)	(15,191,000)	(11,946,618)	4,819,743	1,575,361
Net Cash Provided By (Used In) Capital and Related Activities	(3,271,944)	(2,656,046)	(2,370,701)	(615,898)	(901,243)	(11,745,491)	(12,659,678)	(13,233,269)	914,187	1,487,778	(11,745,491)	(16,591,000)	(13,233,269)	4,845,509	1,487,778
Cash Flows From Investing Activities															
Investments Converting To Cash	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Purchased Investments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Income	342,986	(527,115)	211,896	870,101	131,089	3,466,498	1,946,291	914,680	1,520,208	2,551,818	3,466,498	128,661	914,680	3,337,837	2,551,818
Net Cash Provided By (Used In) Investing Activities	342,986	(527,115)	211,896	870,101	131,089	3,466,498	1,946,291	914,680	1,520,208	2,551,818	3,466,498	128,661	914,680	3,337,837	2,551,818
FUND NET CASH FLOWS	(8,516,816)	(10,782,108)	(6,366,324)	2,265,292	(2,150,492)	13,810,604	9,404,877	2,841,304	4,405,727	10,969,300	13,810,604	2,671,275	2,841,305	11,139,329	10,969,299
DEBT SERVICE RATIO															
Debt Service Ratio (Indenture Based)															
User Charges	4,553,394	3,235,364	4,513,230	1,318,030	40,164	51,815,936	50,661,734	46,757,244	1,154,202	5,058,692	51,815,936	50,680,860	46,757,244	1,135,076	5,058,692
Operating Expenses (Cash Based)	(2,059,968)	(6,307,341)	(6,245,022)	4,247,374	4,185,054	(21,418,136)	(25,046,121)	(23,480,415)	3,627,985	2,062,279	(21,418,136)	(21,782,225)	(17,772,207)	364,089	(3,645,929)
Interest Income	342,986	(527,115)	211,896	870,101	131,089	3,466,498	1,946,291	914,680	1,520,208	2,551,818	3,466,498	128,661	914,680	3,337,837	2,551,818
Annual Lease Payment (City)	(114,520)	(114,520)	(107,221)	-	(7,299)	(1,374,234)	(1,374,234)	(1,286,651)	-	(87,583)	(1,374,234)	(1,400,000)	(1,286,651)	25,766	(87,583)
Non-Operating Revenues (Expenses)	348,233	283,170	4,358,130	65,063	(4,009,897)	4,809,447	4,537,595	8,549,633	271,852	(3,740,186)	4,809,447	4,165,900	8,549,633	643,547	(3,740,186)
Cash Available For Debt Service	3,070,126	(3,430,442)	2,731,014	6,500,568	339,112	37,299,511	30,725,264	31,454,491	6,574,247	5,845,020	37,299,511	31,793,196	37,162,699	5,506,315	136,812
Interest Paid	974,644	974,644	972,530	-	2,114	11,695,732	11,695,732	11,670,361	-	25,371	11,695,732	11,788,844	11,670,361	(93,113)	25,371
Debt Retirement (Principal Payments)	185,201	185,201	209,554	-	(24,353)	2,222,407	2,222,407	2,514,642	-	(292,235)	2,222,407	3,342,077	2,514,642	(1,119,670)	(292,235)
Total Debt Service	1,159,845	1,159,845	1,182,084	-	(22,239)	13,918,139	13,918,139	14,185,003	-	(266,864)	13,918,139	15,130,921	14,185,003	(1,212,783)	(266,864)
Debt Service Ratio	2.65	(2.96)	2.31	5.60	0.34	2.68	2.21	2.22	0.47	0.46	2.68	2.10	2.62	0.58	0.06

**LEHIGH COUNTY AUTHORITY**  
**VARIANCE ANALYSIS - YTD**  
**For the Period Ended December 31, 2023**

**STATEMENTS OF ACTIVITIES**

**Operating Revenues:**

User Charges  
Connection & System Charges  
Other Miscellaneous Revenues

**Total Operating Revenues**

**Operating Expenses:**

Personnel  
Shared Services - General & Administrative  
Utilities  
Materials and Supplies  
Miscellaneous Services  
Treatment and Transportation  
Depreciation and Amortization  
Major Maintenance Expenses  
Other Miscellaneous

**Total Operating Expenses**

**Net Operating Profit**

**Non-Operating Income (Expense)**

Interest Income  
Interest (Expense)  
Other Miscellaneous

**Net Non-Operating Income (Expense)**

**Net Income (Loss)**

**CASH FLOW STATEMENT**

**Cash Flows From Operating Activities**

Operating Revenues  
Operating Expenses (ex D&A)  
Non-Cash Working Capital Changes

**Net Cash Provided by (Used in) Operating Activities**

**Cash Flows From Financing Activities**

Capital Contributions  
Proceeds New Borrowing  
Interest Payments  
Principal Payments

**Net Cash Provided by (Used in) Financing Activities**

**Cash Flows from Capital and Related Activities**

Non-Operating Income (Expenses)  
Capital Expenditures, net

**Net Cash Provided By (Used In) Capital and Related Activities**

**Cash Flows From Investing Activities**

Investments Converting To Cash  
Purchased Investments  
Interest Income

**Net Cash Provided By (Used In) Investing Activities**

**FUND NET CASH FLOWS**

City Division			
Actual	Q4 FC	FC Var	Comments
51,815,936	50,661,734	1,154,202	
4,639,907	4,426,588	213,319	
182,595	116,207	66,387	
<b>56,638,437</b>	<b>55,204,529</b>	<b>1,433,909</b>	Higher revenues across the board
11,285,910	11,686,498	400,588	
2,038,460	1,899,435	(139,025)	
1,898,483	2,172,623	274,140	
3,218,805	3,145,206	(73,599)	
2,239,095	2,129,759	(109,336)	
11,307	12,600	1,293	
6,221,961	6,403,161	181,200	
726,076	4,000,000	3,273,924	
-	-	-	
<b>27,640,097</b>	<b>31,449,282</b>	<b>3,809,184</b>	Lower operating expenses driven mostly by lower major maintenance
<b>28,998,340</b>	<b>23,755,247</b>	<b>5,243,093</b>	Higher operating revenues along with lower operating expenses
3,466,498	1,946,291	1,520,208	
(16,938,519)	(19,212,865)	2,274,345	
(13,054)	(5,200)	(7,854)	
<b>(13,485,075)</b>	<b>(17,271,774)</b>	<b>3,786,699</b>	Higher interest income along with lower interest expense
<b>15,513,265</b>	<b>6,483,473</b>	<b>9,029,792</b>	Higher net operating income aided by favorable financial activity

56,638,437	55,204,529	1,433,909	
(20,692,060)	(21,046,121)	354,061	
(1,309,760)	(341,896)	(967,864)	
<b>34,636,617</b>	<b>33,816,511</b>	<b>820,106</b>	Higher operating revenues and lower operating expenses partially offset by unfavorable working capital movements
-	-	-	
1,371,118	1,371,118	-	
(11,695,732)	(11,717,006)	21,274	
(2,222,407)	(3,352,360)	1,129,953	
<b>(12,547,021)</b>	<b>(13,698,247)</b>	<b>1,151,227</b>	Lower debt service payments
(1,374,234)	(1,366,380)	(7,854)	
(10,371,257)	(11,293,298)	922,041	
<b>(11,745,491)</b>	<b>(12,659,678)</b>	<b>914,187</b>	Lower capex
-	-	-	
-	-	-	
3,466,498	1,946,291	1,520,208	
<b>3,466,498</b>	<b>1,946,291</b>	<b>1,520,208</b>	Higher interest income
<b>13,810,604</b>	<b>9,404,877</b>	<b>4,405,727</b>	Higher cash provided by operating activities, lower debt service, lower capex, and higher interest income

LEHIGH COUNTY AUTHORITY  
CASH & INVESTMENT SUMMARY  
For the Period Ended December 31, 2023

	Suburban Water				Suburban Wastewater				City Division				Total			
	12/31/2023 Actual	2023 Forecast	2023 Budget	2022 Actual	12/31/2023 Actual	2023 Forecast	2023 Budget	2022 Actual	12/31/2023 Actual	2023 Forecast	2023 Budget	2022 Actual	12/31/2023 Actual	2023 Forecast	2023 Budget	2022 Actual
Cash																
Operating																
Unrestricted	1,444,028	11,189,014	7,075,935	5,207,096	1,575,133	11,701,305	4,964,460	900,454	16,410,229	21,356,587	23,660,027	8,682,833	19,137,741	44,246,906	35,700,423	14,790,383
Restricted	-	-	-	-	-	-	-	-	33,090,655	25,407,622	18,916,156	25,418,086	33,090,655	25,407,622	18,916,156	25,418,086
Total Operating	1,444,028	11,189,014	7,075,935	5,207,096	1,575,133	11,701,305	4,964,460	900,454	49,500,885	46,764,209	42,576,183	34,100,919	52,228,396	69,654,528	54,616,578	40,208,469
Capital																
Unrestricted	7,334,475	321,054	319,718	321,054	9,083,022	-	5,955,385	6,862,722	78,906	78,906	3,022,601	3,347,783	16,496,403	399,960	9,297,704	10,531,560
Restricted	-	-	-	-	341,385	338,677	338,360	338,677	7,531,026	7,531,026	7,500,035	7,520,562	7,872,411	7,869,703	7,838,396	7,859,239
Total Capital	7,334,475	321,054	319,718	321,054	9,424,406	338,677	6,293,745	7,201,399	7,609,932	7,609,932	10,522,636	10,868,345	24,368,814	8,269,663	17,136,099	18,390,798
Other Restricted																
Debt Reserves	1,660,215	1,656,568	1,648,569	1,656,568	-	-	-	-	30,004,516	28,335,482	28,976,677	28,335,482	31,664,731	29,992,050	30,625,246	29,992,050
Escrow - Developer Deposits	466,386	218,888	295,372	218,888	56,678	-	-	-	32,106	32,090	-	32,090	555,169	250,978	295,372	250,978
Total Other Restricted	2,126,600	1,875,456	1,943,942	1,875,456	56,678	-	-	-	30,036,622	28,367,571	28,976,677	28,367,571	32,219,900	30,243,027	30,920,619	30,243,027
Total Cash	10,905,104	13,385,525	9,339,595	7,403,606	11,056,216	12,039,982	11,258,205	8,101,853	87,147,439	82,741,712	82,075,496	73,336,835	108,817,110	108,167,219	102,673,296	88,842,294
Investments																
Operating																
Unrestricted	1,956,306	1,944,885	1,975,123	1,944,885	6,965,467	7,084,624	6,977,548	8,866,269	-	-	-	-	8,921,772	9,029,509	8,952,671	10,811,154
Restricted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Operating	1,956,306	1,944,885	1,975,123	1,944,885	6,965,467	7,084,624	6,977,548	8,866,269	-	-	-	-	8,921,772	9,029,509	8,952,671	10,811,154
Capital																
Unrestricted	1,066,824	1,000,184	1,000,000	1,000,184	-	-	-	-	-	-	-	-	1,066,824	1,000,184	1,000,000	1,000,184
Restricted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Capital	1,066,824	1,000,184	1,000,000	1,000,184	-	-	-	-	-	-	-	-	1,066,824	1,000,184	1,000,000	1,000,184
Other Restricted																
Debt Reserves	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Escrow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Other Restricted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Investments	3,023,129	2,945,069	2,975,123	2,945,069	6,965,467	7,084,624	6,977,548	8,866,269	-	-	-	-	9,988,596	10,029,693	9,952,671	11,811,338
Total Cash and Investments	13,928,233	16,330,594	12,314,718	10,348,675	18,021,683	19,124,606	18,235,753	16,968,122	87,147,439	82,741,712	82,075,496	73,336,835	118,805,706	118,196,912	112,625,967	100,653,633
Summary																
Cash																
Unrestricted	8,778,503	11,510,069	7,395,653	5,528,150	10,658,154	11,701,305	10,919,845	7,763,176	16,489,135	21,435,493	26,682,628	12,030,616	35,634,144	44,646,866	44,998,126	25,321,942
Restricted	2,126,600	1,875,456	1,943,942	1,875,456	398,062	338,677	338,360	338,677	70,658,304	61,306,220	55,392,868	61,306,220	73,182,966	63,520,352	57,675,170	63,520,352
Total Cash	10,905,104	13,385,525	9,339,595	7,403,606	11,056,216	12,039,982	11,258,205	8,101,853	87,147,439	82,741,712	82,075,496	73,336,835	108,817,110	108,167,219	102,673,296	88,842,294
Investments																
Unrestricted	3,023,129	2,945,069	2,975,123	2,945,069	6,965,467	7,084,624	6,977,548	8,866,269	-	-	-	-	9,988,596	10,029,693	9,952,671	11,811,338
Restricted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Investments	3,023,129	2,945,069	2,975,123	2,945,069	6,965,467	7,084,624	6,977,548	8,866,269	-	-	-	-	9,988,596	10,029,693	9,952,671	11,811,338
Total Cash and Investments	13,928,233	16,330,594	12,314,718	10,348,675	18,021,683	19,124,606	18,235,753	16,968,122	87,147,439	82,741,712	82,075,496	73,336,835	118,805,706	118,196,912	112,625,967	100,653,633

**CERTIFICATES OF DEPOSIT**

December 2023

Fund	Bank	Location	Gross Amount	Date of Purchase	Date Due	Net Rate %
LLRI CR	Centris FCU	Omaha, NE	245,000.00	12/19/23	12/19/25	5.00

## DEVELOPMENT ACTIVITY

### **Water system construction is occurring in the following developments:**

8323/8449 Congdon Hill Drive, 2 industrial lots with warehouses, LMT  
Chick-Fil-A Building redesign existing water line staying  
Estates at Maple Ridge, Water main extension-UMiIT  
Fields at Indian Creek, Phases 4 & 5, 86 residential units (sfd), water and sewer, UMiIT & Emmaus  
Kohler Tract, 123 residential lots (sfa), water and sewer, UMiIT  
Laurel Fields Phase 5 25 townhouses (sfd) UMT  
Lehigh Hills, Lot 5 Phase 2, 240 residential units (sfd.), UMT  
Lehigh Hills Townhouses, 24 townhouse units (sfa), UMT  
Madison Village at Penn's View, 66 manufactured homes, 1 lot, water and sewer, LynnT  
Mosser Road 10 Townhouses,UMT  
Mountain View Estates, 27 residential units (sfd), LMT  
Parkland Crossings Main Extension 144 Town homes UMT  
Raising Canes 1 commercial lot LMT water  
Sauerkraut Lane Extension, Roadway & water line extension, LMT  
Spring Creek Properties, Lot 12, 1 lot, warehouse, LMT  
Towneplace Suites by Marriott, 91-room hotel, UMT  
Trexler Point (Towns at Schaefer Run) 128 Townhouses UMT  
Trexler Center Unit 5-Wawa water,-LMT  
Wrenfield Townhouses 98 Townhomes UMT  
7991 Quarry Road 1 lot, Warehouse,LMT

### **Water system plans are being reviewed for the following developments:**

2024 Elbow lane single home,LMT  
2619 Grove Street Sewer Main Extension,Washington Township  
3400 Brookside Road, Indian Creek- 26 Single family homes-Main extension, LMT  
3952 Independence Drive,NW  
4002 Chestnut Street water main extension,Umilford  
4054 Chestnut Street Single connection,Umilford  
Valley at Indian Creek 3510 Macungie Road 22 Single family homes-LMT  
5329-5347-5357 Hamilton Blvd., 1 commercial lot, LMT  
Advanced Health Care of Allentown, 1 commercial lot, LMT  
Air Products & Chemicals-Cetronia Road, 1 commercial lot, UMT  
ATAS International, 1 industrial lot, UMT  
Bandit Truck Stop Sewer Main Extension, WT  
Carriage East Residential Development, 11 residential units, (sfd), UMT  
Fallbrooke Residential Subdivision, 90 sf residential units, UMT  
Fields at Emmaus 78 Town Homes, UMT  
Glenlivet Drive West Main extension and subdivision  
Grant Street Townes, 18 Townhouse, WT  
Grant Way Building Expansion,UMT  
Heidelberg Heights 10 Townhouses water ext on lot septic, HH  
Hidden Meadows - Phase 3, 20 townhouse units, UMT  
Krocks Road Mixed use development  
Lehigh Valley Town Center, Mixed use development, UMT  
Madison Village at Penn's View, 66 manufactured homes, 1 lot, water and sewer, LynnT  
Mertztown Residential Subdivision, 264 sf units & 136 townhouse units, LMT  
Schoeneck Road, Lot 1, 1 lot, warehouse, LMT  
Spring Creek Estates 2022 LMT 2 lots, 2 6 unit Apt, 8 single family homes, water  
Spring Creek Lot 12 1 Commercial Lot,LMT  
The Annex at Fields at Indian Creek, 22 sf residential units, Emmaus Borough  
Towns At Schaefer Run, 128 townhouse unit (sfa), UMT  
Trexlertown Retail Center-UMT gas station, carwash  
Twin Ponds 8739 Hamilton Blvd 22 Apts and 1 Daycare UMT  
Upper Macungie Community Center UMT commercial lot, water and Main Extension  
Woodmont Valley 2, 129 apartment units (former Allen Organ Co.) LMT-New  
V Parkland 9230 Long Lane, 16 Single family homes, UMT.

### **Sewage Facilities Planning Modules Reviewed in Prior Month:**

GPD

Lehigh County Authority  
System Operations Review - January 2024  
Presented: February 26, 2024

		<u>Jan-24</u>	<u>2024</u> <u>Totals***</u>	<u>2023 Totals</u>	<u>2022 Totals</u>
Recordable Safety Incidents*	Total LCA	0	0	33	7
Non-Recordable Safety Incidents	Total LCA	2	2		
Incident Types **	Injuries	0	0		
	Property Damage	2	2		
	Near Miss	0	0		

\*\*\*Numbers adjusted to match current tracking methodology

\* Recordable Safety Incidents are those that result in death, days away from work, restricted duty, medical treatment beyond first aid.

\*\* Safety incidents may be categorized in more than one incident type.

<u>Year To Date Safety Incidents</u>		<u>Root Cause Analysis Completed</u>	<u>Corrective Actions Identified</u>	<u>Corrective Actions Completed</u>
		1	1	1
<u>Current Month Incidents</u>				
<u>Description</u>	<u>Date</u>	<u>Type</u>	<u>Root Cause(s)</u>	<u>Corrective Action(s)</u>
<b><u>Incident # 65</u></b> - Employee drug a trailer over 500 yards with trailer brakes locked	1/2/2024	Vehicle Incident	Failed Pretrip Inspection	Reinforcement of pretrip inspections for all of FS
<b><u>Incident # 66</u></b> - drive shaft and yoke broke during travel	1/25/2024	Vehicle Incident	Mechanical Failure	



Lehigh County Authority  
System Operations Review - January 2024  
Presented: February 26, 2024

Lehigh County Authority  
System Operations Review - January 2024  
Presented: February 26, 2024

Lehigh County Authority  
System Operations Review - January 2024  
Presented: February 26, 2024

Lehigh County Authority System Operations Review - January 2024 Presented: February 26, 2024	Page 2
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Critical Activities	System	Description	Jan-24	2024 Totals	2023 Totals	Permit
			Daily Avg (MGD)	Daily Avg (MGD)	Daily Avg (MGD)	Daily Max (MGD)
Water Production	Allentown	Total	21.07	21.07	22.52	39.0
		Schantz Spring	6.47	6.47	6.93	9.0
		Crystal Spring	3.87	3.87	3.89	4.0
		Little Lehigh Creek	10.69	10.69	11.66	30.0
		Lehigh River	0.04	0.04	0.04	28.0
	Central Lehigh	Total	10.30	10.30	11.27	19.04 MGD Avg
		Feed from Allentown	5.87	5.87	7.28	7.0 MGD Avg 10.5 MGD Max
		Well Production (CLD)	4.43	4.43	3.98	8.54 MGD Avg
		Sum of all (12) other Suburban Water Systems	0.14	0.14	0.13	1.71 Sum of all wells
Wastewater Treatment		Kline's Island	40.77	40.77	32.24	40.0
		Pretreatment Plant	5.27	5.27	4.78	5.75 (design capacity)
		Sum of all (5) other Suburban WW Systems	0.30	0.30	0.19	0.36
			Jan-24	2024 Totals	2023 Totals	2022 Totals
Precipitation Totals (inches)			6.32	6.32	46.38	46.47
Compliance Reports Submitted to Allentown			28	28	280	277
Notices of Violation (NOVs)		(Allentown + Suburban)	1	1	3	4
Sanitary Sewer Overflows (SSOs)/Bypasses		(Allentown + Suburban)	9	9	24	18
Main Breaks Repaired		Allentown	8	8	8	34
		Suburban	2	2	12	15
Customer Service Phone Inquiries		(Allentown + Suburban)	1242	1242	11,221	10,539
Water Shutoffs for Non-Payment		(Allentown + Suburban)	164	164	1,995	1,975
Injury Accidents		(Allentown + Suburban)	0	0	19	7
Emergency Declarations		Allentown	0	0	2	(3) @ \$386,225.43
		Suburban	0	0	0	(4) @ \$933,077.11

<u>Significant Repairs/Upgrades:</u>	N/A
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<u>Description of Non-Compliance Events:</u>
<p>The Lehigh Valley recorded ~6.32" of rain in January. Due to the significant amount of rainfall and rising ground water levels, LCA's wastewater systems experienced numerous compliance issues. A summary of the non-compliance events is included with this report.</p> <p>Notice of Violation (NOV) was received from PA DEP for the Arcadia West WWTP. The NOV and response letter are included in this report.</p>

Lehigh County Authority  
System Operations Review - January 2024  
Presented: February 26, 2024

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<u>Critical Activities</u>	<u>System</u>	<u>Description</u>	<u>Jan-24</u>	<u>2024 Totals</u>	<u>2023 Totals</u>
Wastewater Compliance	Allentown	Bypass	1	1	4
		Bypass Volume	1,585,280	1,585,280	1,589,466
		Permit Exceedances	0	0	0
		Sanitary Sewer Overflows	2	2	6
		COA Issued NOVs	0	0	1
		Regulatory Agency issued NOVs	0	0	0
	Arcadia	Bypass	0	0	0
		Bypass Volume	0	0	0
		Permit Exceedances	0	0	3
		Sanitary Sewer Overflows	0	0	0
		NOVs	1	1	0
	Heidelberg Heights	Bypass	2	2	8
		Bypass Volume	1,043,800	1,043,800	1,872,796
		Permit Exceedances	3	3	14
		Sanitary Sewer Overflows	0	0	0
		NOVs	0	0	0
	Lynn	Bypass	1	1	1
		Bypass Volume	695,000	695,000	350,000
		Permit Exceedances	2	2	1
		Sanitary Sewer Overflows	0	0	0
		NOVs	0	0	0
	Sand Spring	Bypass	0	0	0
		Bypass Volume	0	0	0
		Permit Exceedances	3	3	39
		Sanitary Sewer Overflows	0	0	1
		NOVs	0	0	0
	Wynnewood	Bypass	0	0	0
		Bypass Volume	0	0	0
		Permit Exceedances	0	0	5
		Sanitary Sewer Overflows	3	3	3
		NOVs	0	0	0
Water Compliance	Allentown	Boil Water Advisories	0	0	2
	Central Lehigh	Boil Water Advisories	0	0	1
	Suburban Water Systems	Boil Water Advisories	0	0	3

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**MEMORANDUM**

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**Date: February 19, 2024**

**To:** LCA Board of Directors

**From:** Andrew Moore, Director of Plant Operations

**Description of Non-Compliance Events – December 2023:**

System	Discharge Type	Start Date	End Date	Reason	Volume
Kline's Island	Bypass	1/9/24 19:50	1/10/24 04:38	Wet Weather	1,585,280 gallons
Kline's Island – U4_1	SSO	1/9/24 22:30	Unknown	Wet Weather	150 gpm
Kline's Island – R_1_2	SSO	1/9/24 21:00	Unknown	Wet Weather	45 gpm
Lynn Township	Bypass	1/9/24 21:40	1/14/24 21:40	Wet Weather	695,000 gallons
Heidelberg Heights	Bypass	1/9/24 20:40	1/16/24 20:40	Wet Weather	866,000 gallons
Heidelberg Heights	Bypass	1/28/24 13:00	1/30/24 13:00	Wet Weather	177,800 gallons
Wynnewood – Lift Station	SSO	1/10/24 08:15	1/10/24 12:30	Wet Weather	1,500 gallons
Wynnewood – SBR Tank	SSO	1/10/24 08:20	1/10/24 12:30	Wet Weather	2,400 gallons
Wynnewood – Amanda PS	SSO	Unknown	1/22/24 12:00	Failed float	500 gallons

January 22, 2024

## **NOTICE OF VIOLATION**

### **Delivered via email**

Lehigh County Authority  
P.O. Box 3348  
1053 Spruce Street  
Allentown, PA 18106

Attention: Andrew Moore, Compliance Manager

Re: Sewage  
Arcadia West Industrial Park WWTP  
NPDES Permit No. PA0064149  
Weisenberg Township, Lehigh County

Dear Andrew Moore:

The rules and regulations of the Department of Environmental Protection ("Department"), 25 Pa. Code Section 92a.75a, state that "A permittee who wishes to continue to discharge after the expiration date of their NPDES Permit shall submit an application for reissuance of the permit at least 180 days prior to the expiration of the permit unless permission has been granted for a later date by the Department." This requirement is also specified in Paragraph 3 on Page 1 of your permit.

To have met the 180-day requirement, the Department must have received your NPDES renewal application on or before December 3, 2023 in order to have administratively extended said permit. According to Department files, your NPDES renewal application was received on December 18, 2023. Since Lehigh County Authority failed to meet the 180-day requirement described above, the Department is precluded from administratively extending said permit and, on May 31, 2024, NPDES Permit No. PA0064149 will expire unless previously acted upon by the Department.

A review of Lehigh County Authority's monthly Discharge Monitoring Reports ("DMRs") for the Arcadia West Industrial Park WWTP has indicated a pattern of effluent violations with respect to the limitations set forth in NPDES Permit No. PA0064149. Specifically, the violations are as follows:

<u>Monitoring Period</u>	<u>Parameter</u>	<u>Permit Limit</u>	<u>Reported Value</u>
January to December 2021	Phosphorus <i>Annual Mass load</i>	36.5 lbs/year	44.0 lbs/year
May 2022	Fecal Coliform <i>Instantaneous Maximum</i>	1,000/100 ml	>2,420/100 ml
May 2022	Fecal Coliform <i>Geometric Mean</i>	200/100 ml	>49/100 ml
June 2022	Fecal Coliform <i>Instantaneous Maximum</i>	1,000/100 ml	2,420/100 ml
August 2022	Fecal Coliform <i>Instantaneous Maximum</i>	1,000/100 ml	>2,420/100 ml
August 2022	Fecal Coliform <i>Geometric Mean</i>	200/100 ml	>146/100 ml
January to December 2022	Phosphorus <i>Annual Mass load</i>	36.5 lbs/year	92.0 lbs/year
August 2023	Fecal Coliform <i>Instantaneous Maximum</i>	1,000/100 ml	>2,420/100 ml
August 2023	Fecal Coliform <i>Geometric Mean</i>	200/100 ml	>49/100 ml

The Department sent Lehigh County Authority a previous Notice of Violation on July 8, 2021 for similar violations.

Please be advised that failure to comply with the terms and conditions of your NPDES Permit is a violation of said Permit and the Clean Streams Law of Pennsylvania, Act of June 22, 1937, P.L. 1987, as amended, 35 P.S. Section 691.1 et seq. ("The Clean Streams Law") and subjects Lehigh County Authority to appropriate enforcement action including, but not limited to, civil penalty assessment.

**The Department requests that Lehigh County Authority respond in writing to this Notice within 15 days of its receipt.** Said response should indicate the cause of the above-described non-compliance and the steps that will be or have been taken, in order to ensure future compliance.

Please confirm receipt of this Notice by sending an email to [scconfer@pa.gov](mailto:scconfer@pa.gov).

This Notice of Violation is neither an order nor any other final action of the Department. It neither imposes nor waives any enforcement action available to the Department under any of its statutes. If the Department determines that an enforcement action is appropriate, you will be notified of the action.

If you have any questions concerning this correspondence, please contact me at 610.861.2135.

Sincerely,

*Scott T. Confer*

Scott T. Confer

Water Quality Specialist  
Clean Water Program

cc: Weisenberg Township



**LEHIGH COUNTY AUTHORITY**

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: [AndrewMoore@lehighcountyauthority.org](mailto:AndrewMoore@lehighcountyauthority.org)

February 2, 2024

Mr. Scott Confer  
Water Quality Specialist  
Pennsylvania Department of Environmental Protection  
Bethlehem District Office  
4530 Bath Pike  
Bethlehem, PA 18017-9044

Re: Arcadia West Industrial Park WWTP Notice of Violation  
NPDES Permit No. PA0064149  
Weisenberg Township, Lehigh County

Dear Mr. Confer:

The Lehigh County Authority (LCA) is in receipt of the Notice of Violation electronically delivered on January 22, 2024. The following is the required response to violations outlined in the letter which occurred between January 2021 and August 2023.

### **Plant Background**

The Arcadia West WWTP is a dual basin 40,000 gallon per day Sequencing Batch Reactor activated sludge facility serving the Arcadia West Industrial Park in Lehigh County, PA. The flow discharged to this facility is mainly comprised of commercial customers and an elementary school. Due to the nature of their effluent discharges, the Arcadia West WWTP's influent can be highly variable in both hydraulic and organic loadings. The variable loadings can make operation more challenging than a facility solely treating residential waste, or with higher and more consistent flows and loads.

### **NPDES Permit Application**

LCA is aware of the requirement that a NPDES permit application must be submitted within 180 days prior to the permit expiration date. The Arcadia West application was submitted approximately 2 weeks late due to an issue with the laboratory reporting required for the application. LCA will be mindful of application deadlines in the future and will ensure laboratory results are received with ample time for application submittal.

LCA received a letter on January 22, 2024, which was dated December 27, 2023, administratively extending NPDES permit PA0064149 in the event the Department of Environmental Protection cannot

*Every drop matters. Every customer counts.*

reissue the permit prior to the expiration date. It is LCA's understanding that no further action is required.

### **Fecal Coliform**

Seven fecal coliform exceedances were recorded between May 2022 and August 2023. The facility currently uses a Enaqua M4-T8M ultraviolet (UV) system for disinfection before discharge to an unnamed tributary to Mill Creek. Replacement parts for the UV have been increasingly difficult to procure and has caused the system to malfunction at times. LCA has identified the UV system as a critical component that needs to be replaced. LCA placed an order for a like kind replacement in mid-January and is expected to receive it in March 2024. Once installed, additional fecal coliform exceedances are not expected to occur.

### **Phosphorus**

The Arcadia West WWTP has an abnormally high and inconsistent influent phosphorus loading. This has caused issues for the operators in finding a reliable aluminum sulfate dosage which is not also overfeeding chemical. LCA will work with our chemical supplier to evaluate our current use of aluminum sulfate and fine tune our dosage. LCA has recently onboarded a new compliance technician, which will be utilized to better monitor and control chemical feeds throughout our Suburban wastewater plants.

Lehigh County Authority is committed to our regulatory responsibilities, and we always strive for full compliance. If you have any questions, please do not hesitate to call me at 610-437-7681.

Sincerely,



Andrew Moore  
Director of Plant Operations

cc: Liesel Gross, LCA