



**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: April 20, 2026

### BOARD MEETING AGENDA – April 27, 2026 – 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 the 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

- *April 13, 2026 Board Meeting minutes*

#### 4. Committee Reports

- *April 13, 2026 meeting minutes - draft*

#### 5. Public Comments

#### 6. Action / Discussion Items:

#### **FINANCE AND ADMINISTRATION**

- *Resolution No. 4-2026-1 Destruction of Authority Documents (Approval) (pink) (digital Board packet, pages 9-12)*

#### **WATER**

- *Allentown Division - Water Filtration Plant: PFAS Treatment (Approval) (yellow) (digital Board packet, pages 13-35)*
- *Allentown Division – Lead Service Line Replacement Cycle 3 (Approval) (purple) (digital Board packet, pages 36-43)*
- *Allentown Division – Schantz Spring WFP Interconnection (Approval) (salmon) (digital Board packet, pages 44-46)*

#### **WASTEWATER**

- *Industrial Pretreatment Plant Master Plan (Discussion / Approval)*
- *Allentown Division – Sanitary Sewer Collection System: City of Allentown Manhole Rehabilitation (Approval) (green) (digital Board packet, pages 47-54)*
- *Allentown Division – Kline’s Island WWTP – Nitrification Study (Approval) (blue) (digital Board packet, pages 55-68)*
- *Kline’s Island Sewer System – Act 537 Plan (Information) (digital Board packet, pages 69-79)*

7. Monthly Project Updates / Information Items (1<sup>st</sup> Board meeting per month)
8. Monthly Financial Report (2<sup>nd</sup> Board meeting per month) (digital Board packet, pages 80-93) – **March 2026 report attached**
9. Monthly Safety Report (2<sup>nd</sup> Board meeting per month) (digital Board packet, pages 94-96) – **March 2026 report attached**
10. Monthly System Operations Report (2<sup>nd</sup> Board meeting per month) (digital Board packet, pages 97-98) – **March 2026 report attached**
11. Staff Comments
12. Solicitor’s Comments
13. Public Comments / Other Comments
14. Board Member Comments
15. Executive Sessions
16. Adjournment

UPCOMING BOARD MEETINGS		
May 11, 2026	May 18, 2026	June 8, 2026

**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**

### **April 13, 2026**

The Regular Meeting of the Lehigh County Authority Board of Directors was called to order at 12:00 p.m. on Monday, April 13, 2026, Chairman Amir Famili presiding. The meeting was hybrid via in-person attendance 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. Amir Famili, Jeff Morgan, Ted Lyons, Linda Rosenfeld, Peter Dent, and Minal Amin were present for roll call and remained for the duration of the meeting. Kevin Baker joined the meeting at 12:04 p.m. and was present for the duration of the meeting.

Attorney Kevin Reid of the KingSpry law firm, the Authority’s Solicitor, was present along with Authority Staff, Liesel Gross, Ed Klein, Andrew Moore, Chris Moughan, AJ Capuzzi, Chuck Volk, Phil DePoe, Taylor Stakes, and Lisa Miller.

Chairman Famili announced that the Board received their electronic and hard copies of the Board packet in advance. A copy of the packet is also available online.

### **REVIEW OF AGENDA**

Liesel Gross stated that there are no changes to the agenda; however, there will be an Executive Session at the conclusion of the regular meeting to discuss two matters of potential litigation.

### **APPROVAL OF MINUTES**

#### **March 9, 2026 Meeting Minutes**

On a motion by Linda Rosenfeld, seconded by Peter Dent, the Board approved the minutes from the March 9, 2026 meeting as presented (6-0).

### **PUBLIC COMMENTS**

Katherine Simbana was present to ask the Board for help after a sinkhole formed on her property in January 2026. An Authority water main break occurred at the same time as the sinkhole. She said that the insurance companies will not cover the damage to her property, and the City of Allentown is requiring her to repair the property before she can inhabit her home, and she cannot afford to complete the work. Chairman Famili said he is sorry on behalf of the Board and would like clarification as to what happened. Liesel Gross said there was 12-16” of snow on the ground that day when a main break or water loss was reported in the area of 15<sup>th</sup> Street. After investigation, it was determined there was a main break and a sinkhole happening simultaneously. Three homes were impacted and three families were displaced as part of this situation. She said the Authority staff have focused efforts on repairing the water system and stabilizing the roadway, working through the insurance process.

Chris Moughan described the situation noting that there were two other main breaks occurring at the same time. He said a contractor was needed on the scene to assist with fixing the situation. The repair required a 9’ dig to get to the split pipe and replace it.

Ms. Simbana said she needs to hire an engineer to assess what needs to be done. She said the engineer’s cost to prepare a fair estimate is \$15,000 and a contractor has estimated that the costs could be around \$50,000 or more to repair.

There was some additional Board discussion. Chairman Famili said that the Board will discuss this with the Solicitor and then make a recommendation.

### **LCA Rebranding Strategy**

Taylor Stakes, the Authority's Director of Communications & Strategic Partnerships, provided a presentation regarding branding and why a rebranding for the Authority matters. One of the issues spurring the rebrand is that the public does not recognize the Authority's name or logo, and there is a low level of public understanding of the services provided by the Authority. Mr. Stakes said that branding is how the public perceives the Authority on every touchpoint: bills, alerts and notifications, website and social media, field crews and trucks, and media coverage. An updated brand must convey trust, clarity, and regional impact. In order to accomplish this, the Authority is partnering with Artery Collective who will lead a full-scale brand strategy, design, and rollout process. The five-phase rollout is expected to be completed by September 2026.

Peter Dent commented that when he speaks to people about the Authority, he always adds the word "water" because it is unclear what the Authority does. There was some discussion about the legal requirements associated with changing the Authority's name. Chairman Famili commented about the need to develop trust with customers, and it would be important to have measures in place to know if the rebranding effort is effective.

### **Water Main Replacement Program Cycles 9 & 10**

Jason Peters provided an overview of the project that will replace approximately 2 miles of aged spun-cast and or pit-cast iron water main as part of the Allentown Water & Sewer Lease Agreement requirement. This project is closely coordinated with the City's Compliance Office, Streets Program, PennDOT, and private utilities such as UGI. The project is funded by the LCA Allentown Division and is classified as a Major Capital Improvement. Mr. Peters noted that the Cycle 9 & 10 project replacements will fall within the rights-of-way of both the City and PennDOT. He said the Cost Sharing Agreement for this project includes pavement milling, pavement overlay, and ADA ramp construction within City rights-of-way. Mr. Peters recommends awarding the contract to Joao Bradley because they have successfully performed several water main replacements for the Authority and are used regularly during emergency repairs in both Suburban and the City, and they were the lowest responsible bidder.

Ted Lyons commented that the low bidder was quite a bit less than the others and asked if something was missed in the bid. Mr. Peters said that he believes the bid is low because the contractor is local and is currently working on the Authority's lead replacement program, which reduces their mobilization costs. Mr. Lyons also asked if there are concerns about change orders since the bid is so low. Mr. Peters said that he has not seen this happen with this contractor.

On a motion by Linda Rosenfeld, seconded by Peter Dent, the Board approved the Capital Project Authorization for the Construction Phase of the Allentown Division Cycle 9 & 10 Water Main Replacement in the amount of \$4,930,564.00 which includes the Professional Services Authorization to Gannett Fleming in the amount of \$164,520.00, the General Construction Contract to Joao & Bradley Construction Co., Inc. in the amount of \$4,036,008.00, and the Final Paving Restoration Contract in the amount of \$455,036.00, which the CEO is authorized to sign upon complete review of the contract language (7-0).

### **Suburban Division – Industrial Pretreatment Plant Master Plan**

Liesel Gross said there is a lot of discussion with staff and the Upper Macungie Township engineer to develop a shared understanding of the scope of the project. She also said that the Authority is

moving ahead with some preliminary reviews of the electrical system. She plans to re-engage with the Township manager and resume discussions about meeting with the Board of Supervisors to get a pre-agreement in writing to move the project forward. Bi-weekly meetings are still taking place with Boston Beer.

There were some comments about the projected growth in Upper Macungie Township and how that will affect the pretreatment plant. Ms. Gross noted that the Authority was not approved for federal funding through Representative Mackenzie's office; however, the funding requests are still under review by the offices of Senator Fetterman and Senator McCormick. Chairman Famili said he has concerns about the risks associated with process failures at the pretreatment plant and the cost of remediation if that happens. Ms. Gross agreed and stated this is a major driver for the Authority's attempts to accelerate discussion with the Township.

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

Liesel Gross reviewed the April report and noted that there are numerous items on the April 27, 2026 meeting agenda. She also noted that the monthly Operations report will now be split into two reports to allow for Safety to be reported separately. She highlighted the KISS Act 537 Plan item in the report, noting that the Plan was approved by the Pa. Department of Environmental Protection on April 3, 2026. Amir Famili asked when the capital project performance metrics report would begin to be provided to the Board. AJ Capuzzi said that he will have an update at the second meeting in May.

### **STAFF COMMENTS**

None.

### **SOLICITOR'S COMMENTS**

None.

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

None.

### **BOARD MEMBER COMMENTS**

Amir Famili reminded the Board to fill out the Statement of Financial Interest and Conflict of Interest forms and return them to Lisa Miller.

### **EXECUTIVE SESSION**

An Executive Session will be held following the close of the regular meeting to discuss two matters of litigation.

### **ADJOURNMENT**

There being no further business, the Chairman adjourned the meeting at 1:08 p.m.

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Linda A. Rosenfeld  
Secretary

# Lehigh County Authority Board of Directors

## Governance Committee

### Meeting Minutes

Meeting Date & Time: Monday, April 13, 2026 at 10:45 a.m.

Meeting Location: Lehigh County Authority, 1053 Spruce Road, Allentown, PA 18106

Agenda:

#### **1. Call to Order**

Committee Chair Peter Dent called the meeting to order at 10:45 a.m.

#### **2. Roll Call**

Committee Chair – Peter Dent

LCA Board Chair – Amir Famili

Linda Rosenfeld

Ted Lyons

LCA Staff: Liesel Gross, CEO (non-voting)

#### **3. Approval of Minutes – January 12, 2026 meeting minutes**

On a motion by Ted Lyons, seconded by Linda Rosenfeld, the minutes for the Governance Committee meeting held on January 12, 2026 were approved.

#### **4. Board Vacancies**

Liesel Gross reviewed the process for appointing new members to the Authority's Board of Directors, which resulted in Vijay Singh being appointed recently. The Committee discussed the need for review of candidates the County of Lehigh is considering, which did not occur in this case. However, the County did receive feedback from the Authority about the need for a candidate from Upper Macungie Township with a strong financial background, and Mr. Singh appears to be well qualified. The Committee looks forward to welcoming Mr. Singh to the Board.

#### **5. Peer Authority Benchmarking**

The Committee reviewed the benchmarking data gathered from several other municipal authorities in Pennsylvania, with a focus on reviewing the roles and responsibilities of their respective Finance Committees.

There was some discussion about the structure of the Board, roles of officers and committees, and delegated responsibilities to staff. Amir Famili and Linda Rosenfeld noted that in their experience and reviewing other authority Board

meetings, that Lehigh County Authority conducts business in a manner that is similar to other municipal authorities.

## **6. Finance Committee – Draft Charter**

The Committee reviewed the draft Finance Committee Charter provided by Chairman Dent. There was some discussion about the priorities of the Finance Committee, which would include:

- Finalization of the Finance Committee Charter
- Involvement in the annual Budget process at the early stages, to reduce workload of the full Board during the Budget review and approval process
- Review of proposals and approval of the selection of the auditor for next year
- Reviewing and defining the Board Treasurer's role
- Approval of audits
- Review of monthly financial reporting, to support shortened reviews by the full Board

Amir Famili noted that he would begin the process of appointing members to a Finance Committee to begin this work, but would like to meet the new Board member first to better understand his qualifications. There was some discussion about the potential to invite third-party experts to serve on the Finance Committee as needed, and which would be allowable.

## **7. Board of Directors Efficacy – 2026 Off-Site Meeting / Tour**

Liesel Gross proposed the Authority staff could organize facility tours for interested Board members, and suggested the tours begin with the Kline's Island Wastewater Treatment Plant and the Pretreatment Plant due to the high volume of projects being discussed about these facilities. A tour of the Water Filtration Plant can be scheduled for later in the summer.

Amir Famili suggested a more informal social gathering over lunch would be beneficial to create the opportunity for Board members to get to know each other.

## **8. New Business**

There was a brief discussion about whether there should be term limits for Authority Board members, although that would be decided by the County of Lehigh.

## **9. Public Comment**

None.

## **10. Committee Meeting Schedule**

- July 13, 2026
- October 12, 2026

**11. Adjourn**

Chairman Dent adjourned the meeting at 11:35 a.m.

# RESOLUTION No. 4-2026-1

(Duly adopted 27 April 2026)

## **A RESOLUTION AUTHORIZING DISPOSITION OF CERTAIN RECORDS.**

WHEREAS, by virtue of Resolution No. 11-2019-1, adopted November 11, 2019, Lehigh County Authority (“Authority”) declared its intention to follow the *Municipal Records Manual – Retention and Disposition Schedule for Records of Pennsylvania Municipal Governments* (the “State Retention Schedule”), as currently published or as may be amended in the future, but with modifications that are no less stringent or not addressed by the State Retention Schedule in order to address special Authority circumstances or needs; and

WHEREAS, in accordance with the Pennsylvania Municipal Records Act, as amended, found at 53 Pa.C.S.A. 1381 et seq., each individual act of disposition shall be approved by resolution of the Authority’s Board.

NOW THEREFORE, the Lehigh County Authority Board, pursuant to powers invested in it by the Pennsylvania Municipality Authorities Act, as amended, hereby resolves that:

- 1 . In accordance with the State Retention Schedule, the Authority is authorized to dispose of the records contained in the Schedule “A” hereto (“Scheduled Records”).
- 2 . Authority staff members are authorized and directed to take such steps as are necessary or convenient to implement the disposition of the Scheduled Records.
- 3 . This Resolution shall take effect immediately.

On motion of \_\_\_\_\_, seconded by \_\_\_\_\_, this Resolution was adopted the 27th day of April, 2026.

Tally of Votes:                      Yeas \_\_\_\_\_      Nays \_\_\_\_\_

I, Kevin C. Reid, of the law firm of King, Spry, Herman, Freund & Faul, LLC, do hereby certify that the foregoing is a true, correct and complete copy of a resolution which was duly adopted by the Authority at a public meeting of the Authority held on 27 April 2026, after notice thereof had been duly given as required by law, at which meeting a quorum was present and voting and which Resolution No. 4-2026-1 is now in full force and effect on the date of this certification.

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Kevin C. Reid, Esquire Date  
King, Spry, Herman, Freund & Faul, LLC  
Lehigh County Authority Solicitor

Attest:

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Lisa J. Miller Date  
Executive Administrative Support Specialist

SCHEDULE "A"  
to  
RESOLUTION NO. 4-2026-1

**SCHEDULE OF RECORDS SUBJECT TO DISPOSITION**

<b>Document Date(s)</b>	<b>Description</b>	<b>Quantity</b>	<b>File Tag</b>
2003-2024	SB UB Work Order/Install Requests	3 boxes	AL-39
2007	Purchase Orders	1 box	FN-2
2023-2025	Applications for Water Services Hard Copy	1 box	AL-39
2021-2024	SB Settlement Forms	4 boxes	AL-39
Various	Outdated UB Bankruptcy notices	1 box	AL-1
2013-2020	State Ethics Commission Forms	1 envelope	AL-12
2017-2023	Right to Know requests	1 envelope	AL-12
2018	Accounts Payable files	6 boxes	FN-2
2014, 2018	Misc. Cash Receipts / Prior Wastewater allocations	1 box	FN-3
2018	Prior Fire Hydrant Billing	1 box	FN-3
2018	Accounts Receivable	1 box	FN-3
2016	WTP Hauler Accounts Receivable	1 box	FN-3
2018	Prior Escrow Statements	1 box	FN-9
2016-2017	M&T Bank Statements	1 box	FN-9
2018	Bank Statements	1 box	FN-9
2018	Financial Statement Report	1 box	FN-9
2024	Sub/COA Customer Checks	4 boxes	FN-12
2020-2021	Payroll Deduction Authorizations	All PL files are in 2 boxes total	PL-4
2019-2022	Payroll Registers		PL-5
2019-2020	Quarterly Returns of Withholding of Federal Income Tax		PL-11
2019-2020	Quarterly Statements of State and Local Taxes Withheld		PL-12
2019-2022	Time Cards		PL-14
2020	W2s		PL-16

2019-2021	W-4		PL-17
2020-2021	1099s		PL-18

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# MEMORANDUM

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**Date:** April 27, 2026

**To:** Lehigh County Authority Board of Directors  
**From:** Amy Rohrbach, Project Manager  
**Subject:** Allentown Division – PFAS Treatment Design, Bidding, and Funding Assistance Phase Services – Amendment 1

**MOTIONS / APPROVALS REQUESTED:**

No.	Item	Amount
1	Professional Services Authorization Amendment 1 – AECOM (1)	\$199,364

*(1) Does not include construction phase services*

**PROJECT BACKGROUND**

On April 26, 2024, the Environmental Protection Agency (EPA) published the PFAS (per- and polyfluoroalkyl substances) National Primary Drinking Water Regulation. EPA established legally enforceable limits, called Maximum Contaminant Levels (MCLs), for six PFAS compounds in drinking water: PFOA, PFOS, PFHxS, PFNA, HFPO-DA and PFBS.

A study completed in May 2024 identified Crystal Spring as the only source in LCA’s Allentown Division with levels in exceedance of the MCLs and a PFAS treatment system utilizing Granular Activated Carbon (GAC) was recommended. On December 9, 2024, a Capital Project Authorization for design, bidding, and funding assistance phase services was authorized, and design is currently underway for a PFAS treatment system for the Crystal Spring groundwater source.

**PROJECT STATUS**

In December 2024 Board Authorization was given for design, bidding, and funding assistance phase services with AECOM. On November 6, 2025, the City of Allentown issued conceptual design approval for the proposed PFAS Treatment facility. During design, it was determined that additional services would be necessary due to requests from LCA and the City of Allentown, as well as information encountered during the design. The additional services requiring authorization include the following tasks:

1. Additional Conceptual Engineering – This task includes evaluating alternative locations for the proposed treatment facility to meet City of Allentown requirements and reduce the impact to the existing Distribution and Collection parking lot and facility. Multiple possible locations were evaluated, and several site visits were held as well as a final review meeting with City of Allentown Office of Compliance and multiple other departments to help come to a decision on location that would be best for all involved.

2. Scope of Work Additions – The original proposal assumed reusing the existing Crystal Spring pumps. After further discussion with plant operations, it was decided that new feed pumps would be necessary to allow for more flexibility with how Crystal Spring is operated. This task includes the additional effort to incorporate these pumps into the design which includes electrical, HVAC, and structural design elements. These pumps will feed the new GAC vessels, and the existing Crystal Spring pumps will remain in place, which will allow for treated Crystal Spring water to be pumped directly into the distribution system in the event the plant is offline.
3. Rate Escalation for Calendar Year 2026 – Due to delays during the conceptual design phase, detailed design was not completed in 2025 as originally anticipated at the time of proposal. The new timeline has design being completed in August 2026. This task includes a rate escalation due to extending further into 2026 than originally anticipated.
4. Auxiliary Spring Chamber Recommendations Memo – During design, it was determined that the auxiliary spring chamber is no longer necessary and may be beneficial to remove. This removal would help address regulatory concerns related to its proximity to the vehicular parking. In order to get the City’s approval to remove this chamber, the City requests a memo be prepared by AECOM evaluating that the Auxiliary Spring Chamber to ensure it is not essential to the continued safe operation of Crystal Spring.
5. Additional Geotechnical Investigations – Initial soil borings were inconclusive, and additional geotechnical investigation was recommended. This task includes effort in developing a plan for test pitting and potholing, field observation to document conditions during the test pitting, and analyzing field data in order to prepare an addendum to the original geotechnical report.
6. Additional Detailed Design Scope – This task includes additional design items that were not included in the original proposal. This includes additional architectural renderings and meeting with the City of Allentown to review the proposed finishes for the building, additional electrical design for supplying power for the new facility, design of spent washwater pumps as the original proposal anticipated reusing existing pumps, and design of a dehumidification system which was requested by LCA staff and not included in the original proposal.
7. Additional Permitting Services – This task included additional permitting effort based on requirements identified by the City during the conceptual design review. The proposed project will result in less than 10,000 square feet of new impervious surface and wouldn’t typically require Act 167 stormwater management; however, the City has requested that stormwater management water quality improvements be designed for the new facility. A Chapter 106 Floodplain Management Permit is also required as the facility will be owned by the City of Allentown; therefore, the City can’t do their own review, and a formal submission to PaDEP must be completed. This was not known at the time of proposal and was identified during the conceptual design review.
8. Pre-Procurement Services – Due to the lead time on the proposed pressure vessels, and the time of the new regulation enforcement date, advanced procurement is being recommended. This task will include preparation of technical specifications and a bid package, administration of the bidding via PennBID, coordination of a pre-bid meeting, bid management, evaluation of bids, and recommendation for award.

**FINANCIAL**

This project was approved as Major Capital Improvement and will be funded through Capital Cost Recovery. There is also PFAS settlement money awarded to the City of Allentown that will be used to reimburse some of the project costs.

**THIS APPROVAL – DESIGN, BIDDING, AND FUNDING ASSISTANCE PHASE SERVICES**

Lehigh County Authority has an existing agreement with AECOM to provide the design, bid and funding assistance phase services and they will perform these additional tasks. The following table summarizes the additional tasks to be performed under this approval:

<b>Task</b>	<b>Cost</b>
Additional Conceptual Engineering	\$26,080
Scope of Work Additions	\$44,850
Rate Escalation for Calendar Year 2026	\$22,600
Auxiliary Spring Chamber Rec. Memo	\$8,600
Additional Geotechnical Investigation	\$9,914
Additional Detailed Design Scope	\$42,570
Additional Permitting Services	\$33,520
Pre-Procurement Services	\$12,504
Credit for PFAS Samples during Rapid Small Scale Column Testing	(\$ 3,274)
<b>TOTAL</b>	<b>\$199,364</b>

**PROJECT SCHEDULE**

It is anticipated that the design and bidding phase services will be completed by December 31, 2026.

**FUTURE AUTHORIZATIONS – CONSTRUCTION PHASE SERVICES**

Following Design and Bidding Phase Services, Capital Project Authorization will be requested from the Board for equipment procurement and construction phase services.



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## REQUEST FOR BOARD AUTHORIZATION

Board of Directors Meeting Date: April 27, 2026  
 Staff Member Requesting Authorization: Amy Rohrbach  
 Department: Capital Works  
 Short Description / Title of Project / Purchase: Allentown Division – PFAS Treatment Design Amendment 1  
 Project Number (if applicable): 50656

**Capital Expense:** (check all that apply)

- Capital Project >\$250,000
  - Construction / Other Contract(s)
  - Professional Services Authorization
  - Initial Authorization
  - Amended Authorization
- Professional Services Authorization >\$100,000
- Equipment Purchase >\$250,000
- Upsizing / Extension >\$250,000
- Aggregate Change Order >10% of contract and >\$100,000
- Stand-Alone Change Order >\$50,000

**Operations Expense:**

- Construction / Other Contract >\$250,000
- Professional Services Authorization >\$100,000
- Equipment / Other Individual Item >\$250,000
- Emergency Authorization >\$50,000
- Aggregate Change Order >10% of contract and >\$100,000
- Stand-Alone Change Order >\$50,000

**LCA Enterprise Fund:**     Allentown Division     Suburban Water     Suburban Wastewater     Internal Service / Admin

**Current Project Phase:**     N/A (skip to Description)     Planning     Conceptual Design     Design / Bid     Construction

**Prior Authorization(s):**

Date	Phase	Description	Amount Authorized
12/9/2024	Design	AECOM Design, Bidding & Funding Assistance PSA	\$1,069,830
12/9/2024	Design	Staff Hours	\$75,000
12/9/2024	Design	Contingency	\$100,000
<b>Total Prior Authorizations:</b>			<b>\$1,244,830</b>

**Current Authorization Requested:**

Description	Amount Requested
AECOM Design, Bidding & Funding Assistance PSA Amendment 1	\$199,364
	\$
	\$
	\$
	\$
	\$
	\$
<b>Total Amount Requested (this authorization):</b>	<b>\$199,364</b>

**Future Authorizations:**

Phase	Note / Description	Estimated Cost
Construction	Construction	\$20,000,000
		\$
<b>Estimated Total Project Cost:</b>		<b>\$21,444,194</b>

**Short Description:** (please attach supporting documentation, cost justification, trade-in values, proposals, memos, etc.)

In December 2024 Board Authorization was given for design, bidding, and funding assistance phase services with AECOM. On November 6, 2025, the City of Allentown issued conceptual design approval for the proposed PFAS Treatment facility. During design, it was determined that additional services would be necessary due to requests from LCA and the City of Allentown, as well as information encountered during the design. This authorization is to cover the additional services needed during design.

**Purchasing Procedure:**     Formal Bid     Request for Proposal     Cooperative Purchasing Group / CoStars     N/A - Emergency

**Motion:** \_\_\_\_\_ **Second:** \_\_\_\_\_ **Approved?** \_\_\_\_\_ **Certified by:** \_\_\_\_\_



AECOM  
1635 Market Street  
Suite 1000  
Philadelphia, PA 19103  
aecom.com

September 22, 2025  
*Revision #1 November 5, 2025*  
*Revision #2 April 16, 2026*

Amy Rohrbach  
Project Manager  
Lehigh County Authority - Allentown  
Division  
amyrohrbach@lehighcountyauthority.org

**Our Reference**

60747605 - LCA Allentown WFP  
PFAS Design

**Your Reference**

Allentown Division PFAS Treatment –  
Design, Bidding, and Funding  
Assistance Services

**Proposal for Amendment #1 – Additional Effort for the LCA Allentown WFP PFAS Design**

Dear Ms. Rohrbach,

AECOM is pleased to continue providing ongoing engineering design services for the proposed PFAS Treatment Facility at the Allentown Water Filtration Plant (WFP). Since initiating the project on January 9, 2025, we have worked closely with the LCA team to identify and refine project priorities, requirements, and constraints.

On November 5, 2025, AECOM provided LCA with a summary of scope modifications and associated budget impacts identified at that time. At LCA's request, we deferred submission of a formal amendment to allow the design to further progress and to consolidate any additional changes that might arise. This letter formally documents those changes and presents a consolidated request for additional authorization. There have been no changes to the previously reviewed items included in the November 2025 Revision #1. Additional tasks have been included to capture scope modifications made since that submission. A description of the scope modifications is below.

November 2025 Revision #1 Summary

The November 2025 Revision #1 included additional effort for conceptual engineering design services, scope of work additions, and rate escalation for 2026.

As part of our contracted scope, we initiated the Conceptual Development Phase to advance the design initially proposed in the alternatives phase. During this phase, additional time and resources were required to validate and refine the initial concept beyond what was anticipated in our original proposal. These refinements were made to align the design to meet LCA's operational and regulatory objectives and have also promoted stronger engagement and understanding among stakeholders at the City.

As the design progressed, the overall scope of work expanded to include new design elements that emerged during the Conceptual Development Phase and were not part of the previously accepted scope. A key example is the addition of a new pumping system, which replaces the earlier concept of modifying existing pumps to boost pressure for the pressure vessels. This change has also introduced the need for additional electrical power upgrades, hoisting provisions, and hydraulic evaluations. We have carefully reviewed the differences between the current scope understanding and the original agreement to document and formalize these changes. These scope modifications ensure that the proposed improvements more effectively meet the operational needs of the WFP and the broader objectives of LCA.

Our original design schedule anticipated completion of 100% design by November 2025. However, due to the extended effort required to develop a concept acceptable to both LCA and the City, under the conceptual engineering phase, we have only recently initiated the 30% design phase. We now anticipate completing the design in August 2026. Accordingly, we will apply Calendar Year 2026 billing rates to our invoices starting January 1, 2026, which will increase the budget needed for AECOM labor. These rates were negotiated under our Master Services Agreement with LCA and became effective on January 22, 2025.

Lastly, following the May 21, 2025, meeting between LCA, the City, and AECOM, LCA requested that AECOM prepare a memorandum evaluating the Auxiliary Spring Chamber and recommending whether it could be demolished. Demolition of this chamber would address regulatory concerns regarding its proximity to vehicular parking and could allow for reconfiguration of parking spaces to better utilize available space.

#### April 2026 Revision #2 Summary

This April 2026 Revision #2 includes additional scope modifications including additional geotechnical services, detailed design scope items, permitting services, and pre-procurement services.

The additional geotechnical services were performed to further assess subsurface conditions and characterize the historic fill within the raw water reservoir. While soil borings were initially completed in August 2025 as part of the original scope, obstructions encountered during the process necessitated further investigation. This supplemental geotechnical work builds upon the previous efforts, aiming to provide a more comprehensive understanding of the work area to inform the design and understand potential construction implications.

Additionally, AECOM has identified permitting effort not included in the original proposal. During the concept design phase, we submitted conceptual plans to the City for review and in response, the City provided comments indicating that permitting for both Act 167 Stormwater Management and Chapter 106 Floodplain Management may be required, which subsequently AECOM confirmed. These additional permitting services are necessary for regulatory compliance and secure the required approvals prior to construction. The services will include preparing and submitting permit applications to the appropriate regulatory agencies, coordinating with the City and PADEP, and addressing review comments to finalize submissions.

Finally, through an evaluation of the construction schedule, it became clear that pre-procurement of major equipment was necessary to prevent delays to the project timeline. To address this,

AECOM will provide services for pre-procurement of the pressure vessels. This effort includes preparing bid packages, drafting technical specifications and compliance clauses, managing the advertisement and pre-bid process, and responding to bidder inquiries. Taking this proactive approach will help to maintain the project schedule.

For your convenience, the following main points are summarized below and are further supported in the succeeding sections of this letter. Tasks have been separated between those previously submitted and reviewed as part of the November 2025 Revision #1 and the new updates:

#### November 2025 Revision #1 (No Changes)

1. Additional Conceptual Engineering Design Services
2. Scope of Work Additions
3. Rate Escalation for Calendar Year 2026
4. Auxiliary Spring Chamber Recommendations Memorandum

#### April 2026 Revision #2 (Updates)

5. Additional Geotechnical Services
6. Additional Detailed Design Scope
7. Additional Permitting Services
8. Pre-Procurement Services

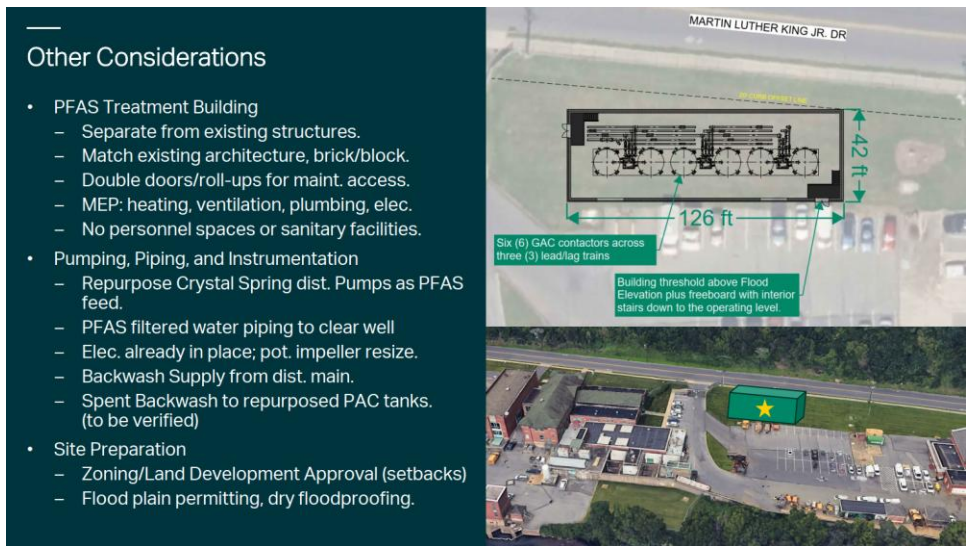
We appreciate your continued collaboration and look forward to advancing this important project.

#### **November 2025 Revision #1 (No Changes)**

##### **1. Additional Conceptual Engineering Design Services**

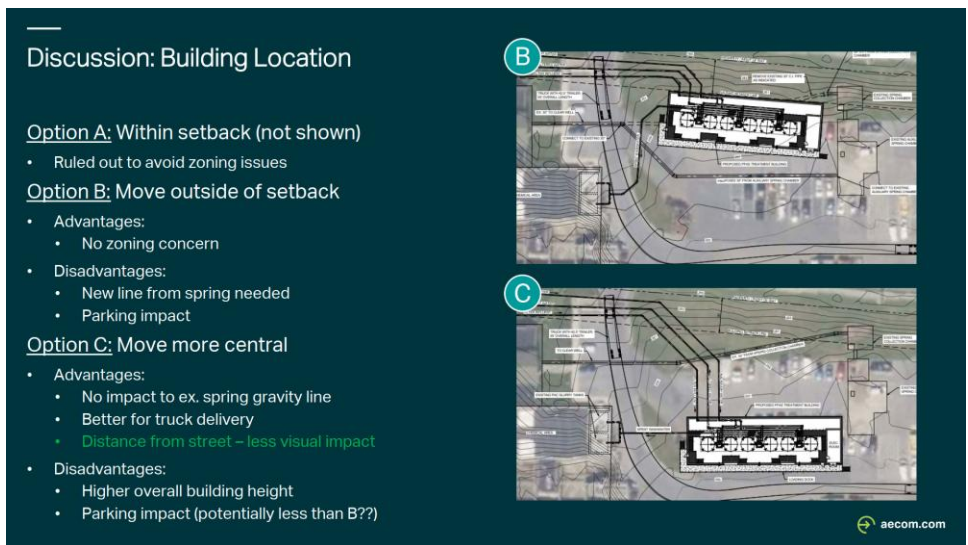
Under the original Conceptual Development Task, AECOM proposed updating the conceptual design developed during the alternatives phase, with consideration for site access, constructability, and potential cost savings. The initial concept, presented at the Project Kick-off Meeting on January 16, 2025, depicted the PFAS Treatment Facility in the grass strip north of the parking lot between the WFP and the D&C Building (**Figure 1**). During that meeting, concerns were raised regarding zoning and land development approvals, specifically the building's proximity to MLK Drive and the 15-foot setback from the property line—less than the 30-foot minimum required by the City zoning ordinance.

Additionally, WFP operations staff expressed interest in reconsidering the proposed pumping arrangement. The original concept involved repurposing the existing Crystal Spring distribution pumps to serve as booster pumps, avoiding the need for new electrical infrastructure. However, this approach would require routing all Crystal Spring flow to the main clearwell, eliminating a direct entry point into the distribution system, and other pumping alternatives were requested by WFP operations.



**Figure 1. Layout Shared on January 16, 2025**

At a Conceptual Design Workshop on February 18, 2025, AECOM presented two revised building locations (one meeting the 30-foot setback and one centrally located in the parking lot) and a new pumping option involving dedicated booster pumps within the PFAS facility (Figure 2). However, both revised building locations impacted parking used by D&C staff for staging, operations, and personal vehicles, and measures to reduce this impact were requested. AECOM was asked to explore whether a 2x3 vessel arrangement could optimize space usage.



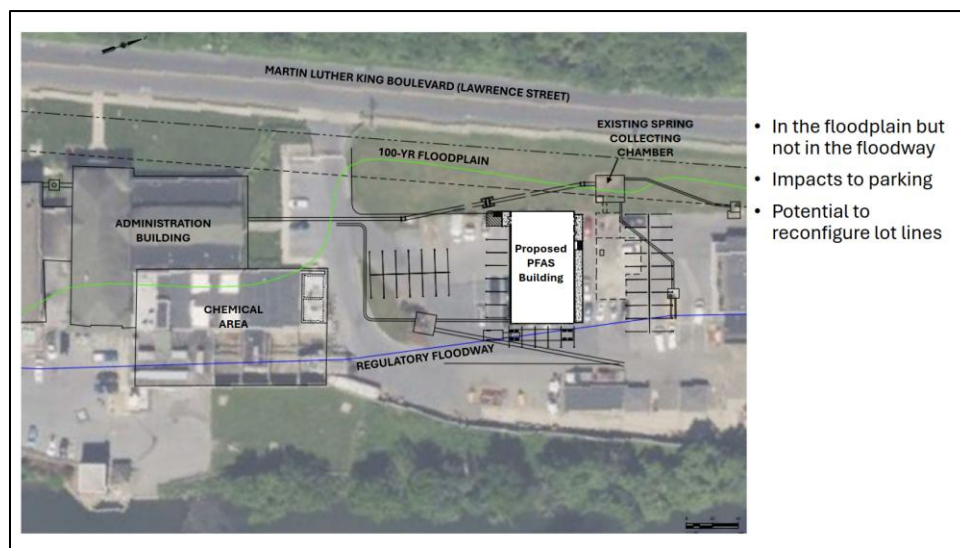
**Figure 2. Layouts shared on February 18, 2025**

During the February 18 meeting, a question was raised about whether the PFAS Treatment Facility could be housed within the existing D&C maintenance building. AECOM visited the site on March 6, 2025, and reviewed record drawings provided by LCA. Based on concerns about accommodating the vessels and the extensive reconfiguration required for interior structural

partitions added during the last retrofit, we determined that using this building would not be economical.

At the April 1, 2025 Concept Update Meeting, AECOM presented a revised site plan with a 2x3 vessel layout and also evaluated pavement re-striping to assess parking impacts (**Figure 3**). Preliminary findings showed net-zero change in parking spaces, though construction-phase impacts remained a concern. LCA initiated internal discussions with its D&C division and determined that a meeting with the City was necessary.

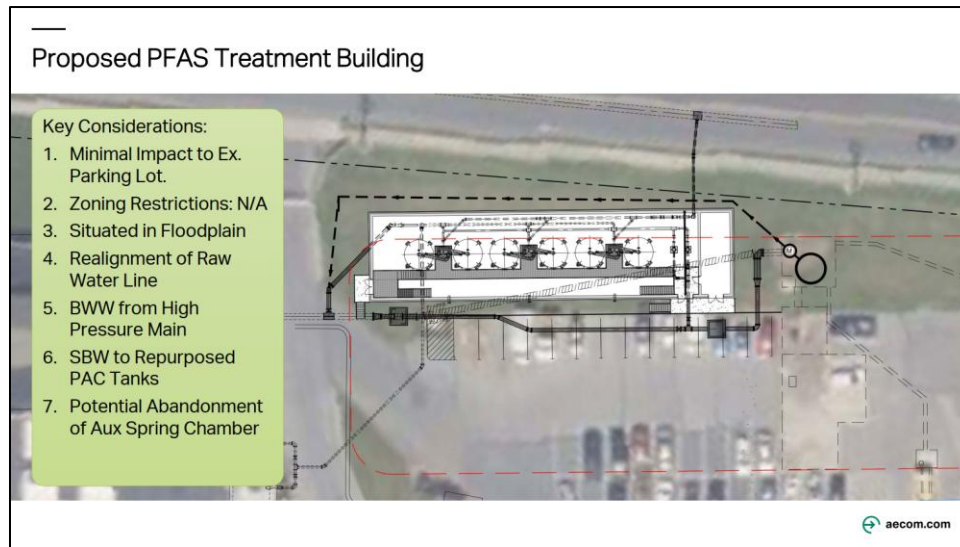
To support the May 21, 2025 meeting, AECOM prepared a cost estimate for relocating the facility across MLK Drive near the backwash water tank—an alternative not preferred by LCA but useful for comparison. LCA also explored options for relocating site operations to nearby City-owned properties.



**Figure 3. Layout shared on May 21, 2025**

The meeting with the City was positive. The City noted the zoning ordinance interpretation that municipal properties are exempt from zoning requirements, making the original grass strip location viable again. AECOM updated the conceptual layout to reflect this location, incorporating the new pumping systems and electrical rooms. The revised layout, sent to LCA on June 1, 2025, included a relocated 30" raw water line to maintain service during construction.

AECOM met with LCA again on June 12, 2025, to review updates. Additional feedback was provided, including concerns about truck turning movements and temporary parking impacts during GAC deliveries. AECOM continued refining the design and submitted a full Conceptual Design Report on July 14, 2025. Following an in-person meeting on July 22, 2025, minor updates were presented (**Figure 4**), and a final version was issued on August 5, 2025.



**Figure 4. Layout shared on July 22, 2025**

Additional Costs

The iterative development of the conceptual design was essential for addressing stakeholder concerns and refining the project approach to meet LCA’s needs. However, it required substantially more effort than anticipated. Our initial proposal allocated 218 hours for conceptual engineering, including only 20 hours for CADD design. In practice, AECOM expended an additional 172 hours on CADD and mechanical/civil design and additional site visits and meetings.

We are requesting an additional 172 hours and \$26,080 in labor costs to cover this expanded effort. A detailed breakdown by staff is provided in **Table 1**.

**Table 1. Additional Conceptual Engineering**

Role	Project Director	Project Manager	Lead Process Eng	Project Engineer	CADD Support	Total Hours	Labor
Name	C. Curran	B. Deatrich	B. Sadowski	P. Duggan	D. Katzmire		
Bill Rate Title	Project Director	Project Manager II	Senior Engineer II	Senior Engineer I	CADD/Tech Support III		
Bill Rate	\$280.00	\$195.00	\$170.00	\$155.00	\$145.00		
Task: Additional Conceptual Engineering	2	12	6	12	140	172	\$26,080

**2. Scope of Work Additions**

During the refinement of the conceptual design, several new elements were added that were not included in AECOM’s original scope of work. These additions include:

- New Booster Pumps – Two 60 HP canned vertical turbine pumps (1 duty / 1 standby), each rated for 2,778 gpm

- Expanded Electrical Distribution System – Required to support the power and VFD needs of the new pumps
- Additional HVAC Systems – To accommodate heat loads from the new pumps and expanded electrical room
- Monorail Beam and Hoist – For safe and efficient servicing of the new pumps
- Mezzanine Structure – To aid in maintenance access to serviceable components on the tops of the vessels; includes metal framing, grating, stairs, and railings.
- Translucent Architectural Panels – To provide natural lighting and facilitate vessel removal and replacement

**Additional Costs**

AECOM evaluated the additional design effort required across civil, mechanical, electrical, HVAC, architectural, and structural disciplines to incorporate these new components. Overall, the expanded scope represents approximately a 6.0% increase in the detailed design phase effort (tasks 2 and 3).

To support the development of these additions, we are requesting an additional 290 hours and \$44,850 in labor costs. A breakdown of this effort by staff is provided in **Table 2**.

**Table 2. Scope of Work Additions**

<b>Role</b>	<b>Discipline Dept. Lead</b>	<b>Discipline Sr. Engineer</b>	<b>Discipline Jr. Engineer</b>		
<b>Name</b>	Various	Various	Various		
<b>Bill Rate Title</b>	Tech Advisor /Specialist I	Senior Engineer II	Staff Engineer II	<b>Total Hours</b>	<b>Labor</b>
<b>Bill Rate</b>	\$250.00	\$170.00	\$120.00		
Task: Scope of Work Additions	35	110	145	290	\$44,850

**3. Rate Escalation for Calendar Year 2026**

As noted above, the extended conceptual design phase has delayed the overall project schedule by approximately six months compared to our original proposal. These delays were necessary to collaboratively evaluate the concept with LCA and coordinate with stakeholders, including the City, and were not anticipated in AECOM's initial schedule.

As a result, a portion of our scope will now be executed in calendar year 2026. While our original schedule projected completion of 100% design by November 2025, we now anticipate reaching that milestone in August 2026.

Accordingly, updated labor rates starting January 1, 2026, as outlined in the Master Services Agreement between AECOM and LCA, which became effective on January 22, 2025 (see Attachment 1) will be utilized.

**Additional Costs**

Applying the 2026 billing rates will result in a higher cost for AECOM labor. To estimate this impact, we calculated the percentage of hours per task expected to be worked in 2026 and compared the rate differentials against those in our original fee proposal dated November 1, 2024. A detailed breakdown is provided in **Attachment 2**, with the total additional cost estimated at \$22,600. This represents a net increase of 4.5% for labor in CY 2026.

#### 4. Auxiliary Spring Chamber Recommendations Memorandum

Following the May 21, 2025, meeting between LCA, the City, and AECOM, LCA requested that AECOM prepare a technical memorandum assessing the Auxiliary Spring Chamber (shown in **Figure 5**) and determining whether it could be safely demolished. Removing this structure would help address regulatory concerns related to its proximity to vehicular parking and could allow for reconfiguration of the adjacent lot to optimize space usage.

To support this evaluation, AECOM will perform a detailed investigation that includes:

- Researching historical record drawings to understand the original purpose and function of the chamber
- Estimating the chamber's internal volume and dimensions
- Reviewing remotely operated vehicle (ROV) footage of the chamber's interior
- Developing recommendations to confirm that the chamber does not contribute flow to the Water Filtration Plant (WFP)

This memorandum was initiated shortly after the request was made. However, upon reviewing the ROV footage (see example in **Figure 6**), additional concerns arose, and we are currently finalizing the memo with recommendations and an action plan. The analysis will focus on supporting the conclusion that the Auxiliary Spring Chamber is not essential to the continued safe operation of the Crystal Spring system. It is important to note that the current configuration of the proposed PFAS Treatment Facility does not depend on the demolition of this structure.



Figure 5. Auxiliary Spring Chamber

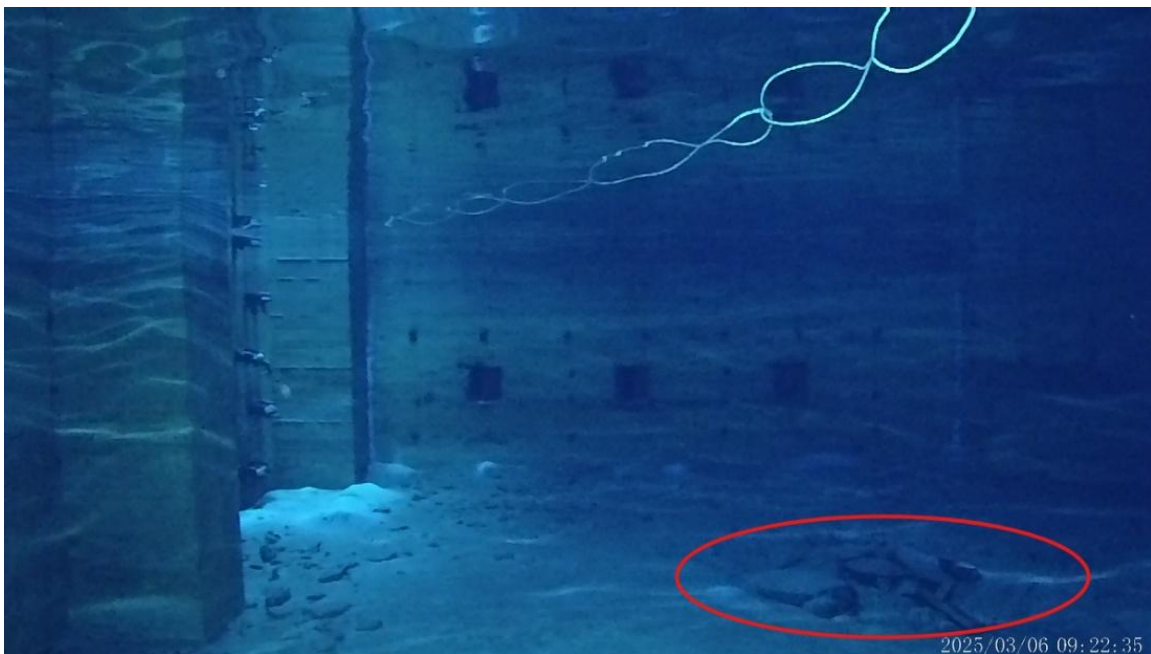


Figure 6. Depression on Floor of Aux. Spring Chamber Under Further Review

Additional Costs

AECOM has already advanced this memo and based on projections for the amount of effort to complete the evaluation, is presenting the cost of the overall effort to be 48 hours and \$8,600. A detailed breakdown is provided in **Table 3**.

**Table 3. Auxiliary Spring Chamber Recommendations Memorandum**

Role	Project Manager	Technical Specialist	Project Engineer		
Name	B. Deatrich	B. Clunie	P. Duggan		
Bill Rate Title	Project Manager II	Senior Engineer II	Senior Engineer I	<b>Total Hours</b>	<b>Labor</b>
Bill Rate	\$195.00	\$275.00	\$155.00		
Task: Auxiliary Spring Chamber Recommendations Memorandum	20	3	25	48	\$8,600

**April 2026 Revision #2 Updates**

**5. Additional Geotechnical Services**

The soil borings in August 2025 revealed unforeseen subsurface obstructions that prevented drilling at two locations. As documented in the December 2025 Geotechnical Investigation Report, the fill within portions of the former reservoir area was not fully penetrated during the initial borings, and the composition and compaction of this material remain uncertain. To better understand the obstructions, characterize the historic fill in the former raw water reservoir and confirm the location and depth of the existing utility tunnel, AECOM provided additional site investigation services, including:

- Developing a work plan and site map identifying test pit and pothole locations. Four test pits were completed, and three pothole locations were completed
- Providing field observation to log soil, document debris and fill conditions, and record field observations
- Conducting visual inspection and photographic documentation of the exposed utility tunnel
- Analyzing field data and preparing an addendum to the geotechnical report

The site investigation was completed on February 27-28, 2026, and we are currently preparing a geotechnical report addendum to document the findings.

**Additional Costs**

AECOM has completed the field activities associated with this task and has estimated the remaining effort required to complete the findings evaluation and specifications preparation.

To support the development of these additions, we are requesting an additional 68 hours and \$9,914 in labor costs. A breakdown of this effort by staff is provided in **Table 4**.

**Table 4. Geotechnical Services Additions**

Role	Project Engineer	Staff Engineer	Geotech		
<b>Name</b>	J. Jordan	J. Juliano	Various		
<b>Bill Rate Title</b>	Senior Engineer II	Staff Engineer I	Staff Engineer III		
<b>2026 Bill Rate</b>	\$180.00	\$108.00	\$145.00	<b>Total Hours</b>	<b>Labor</b>
Task: Geotechnical Investigations	10	8	50	68	\$9,914

**6. Additional Detailed Design Scope**

During the refinement of the conceptual design, new elements were added that were not included in AECOM’s original scope of work. These additions are described below.

Architectural Renderings and City Coordination

The northern façade of the proposed treatment building is visible from Martin Luther King Drive which raised aesthetic concerns for the City during their design review. At the request of the City, AECOM prepared additional architectural renderings (**Figure 7**) and participated in a review meeting to support the City’s evaluation of the proposed facility on January 29, 2026.



**Figure 7. 3D Architectural Rendering of the Northern Façade**

At the January 29, 2026 meeting, the City provided comments. AECOM updated the architectural renderings to address these comments, including adjusting the sill height to better reflect the existing structure, and provided a comment response on February 10, 2026. AECOM’s original proposal did not include participation in meetings with the City for architectural review, or preparation of written responses associated with formal City architectural review.

Electrical Distribution

Additional design effort was required for the electrical design to explore options for supplying power to the new PFAS facility. Initially, AECOM assumed that the existing electrical service would be adequate based on the current electrical distribution system and the anticipated load of the

new facility. However, upon reviewing the electrical system drawings, it was determined that additional effort would be needed to verify this.

To confirm the appropriate electrical design approach, AECOM conducted a detailed evaluation and determined that connecting the new building to the existing Motor Control Centers (MCCs) was more complex than initially anticipated. Additional efforts to define the recommended approach included the following:

- Reviewing utility bills from the previous 12 months to assess peak demand.
- Taking and performing a detailed review of photographs of existing equipment to identify unused or outdated equipment.
- Preparing for and participating in the November 19, 2025, meeting with Keystone. During this meeting AECOM presented three alternatives and received feedback from Keystone and LCA to ensure our efforts aligned with other upcoming work.
- Developing load calculations for multiple alternatives to explore redistribution options.
- Preparing a metering plan to confirm the true capacity of the existing MCCs and finalize the appropriate power supply approach.

#### Spent Washwater Pumps

The original design for the new PFAS facility assumed that the existing plant drain sump in the chemical area would be used to discharge flow from the spent washwater tanks to the existing sanitary system. A review of the drawings showed this sump currently outlets upstream of the siphon chamber in the sewer system. Through discussions with LCA, concerns were raised related to discharging to the sewer upstream of the siphon chamber. The sanitary force main frequently operates under surcharged conditions, particularly during peak wet-weather events, and discharging into the system upstream of the siphon could exacerbate these conditions. The preference is to discharge new process flow from the spent washwater tanks downstream of the siphon chamber, where the sewer system operates under more favorable hydraulic conditions. The sump receives other plant drains and needs to remain in service, and a new pump system will be used to manage the spent washwater.

The proposed design includes removing the decommissioned powdered activated carbon (PAC) feed pumps, adding three (3) new horizontal submersible dry pit pumps, and installing new discharge piping to the downstream end of the siphon chamber. Additional mechanical process design includes pump selection and sizing and redesign of suction and discharge piping. Electrical design must address power supply upgrades and cable routes for the new pumps. Controls design will integrate the new pumps into the facility's SCADA system, including flow and pressure monitoring, control programming, and alarm systems. These efforts also include updates to drawings, specifications, and construction documents.

#### Dehumidification

LCA has expressed concerns regarding potential condensation within the new treatment building, particularly given the treatment system will be treating the Crystal Spring, a groundwater source. Condensation can lead to a range of problems, including corrosion of equipment. To address these concerns and at the request of LCA, a dehumidification system has been added to

the facility design. The original proposal included evaluation of dehumidification requirements but did not include detailed design of a dedicated dehumidification system.

The proposed dehumidification system includes four (4) Quest 746 commercial refrigeration-based dehumidifiers serving the Process Room. Each unit is a packaged, self-contained mechanical dehumidifier utilizing R-454B refrigerant, a more environmentally friendly refrigerant option. The units will operate in a staged sequence to maintain a space relative humidity setpoint to ensure consistent and effective humidity control. This design will actively prevent condensation from forming on surfaces, particularly on the vessels and piping. Maintaining optimal humidity levels will improve the longevity of process equipment and indoor air quality within the building.

Designing and integrating the dehumidification system into the facility requires additional multidisciplinary effort. Mechanical design involves selecting and sizing the appropriate dehumidification equipment, determining airflow requirements, and integrating the system with the existing HVAC design. Electrical design will address power supply needs, including load calculations, wiring, and connections to the building’s electrical distribution system. Instrumentation and controls design will ensure the system is integrated into the facility’s SCADA system for monitoring and control, including humidity sensors and alarms.

**Additional Costs**

AECOM evaluated the additional design effort required across civil, electrical, HVAC, architectural, and structural disciplines to incorporate these new components. To support the development of these additions, we are requesting an additional 252 hours and \$42,570 in labor costs. A breakdown of this effort by staff is provided in **Table 5**.

**Table 5. Additional Detailed Design Scope Additions**

Role	Project Manager	Project Engineer	Staff Engineer	Discipline Dept. Lead	Discipline Sr. Engineer	Discipline Jr. Engineer		
Name	B. Deatrich	J. Jordan	J. Juliano	Various	Various	Various		
Bill Rate Title	Project Manager II	Senior Engineer II	Staff Engineer I	Tech Advisor /Specialist I	Senior Engineer II	Staff Engineer II		
2026 Bill Rate	\$200.00	\$180.00	\$108.00	\$250.00	\$180.00	\$130.00	Total Hrs	Labor
Architectural Renderings	4	4		10			18	\$ 4,020
Electrical Distribution				10	30	40	80	\$13,100
SWW Pumps				10	25	35	70	\$11,550
Dehumidification	4			10	30	40	84	\$13,900
<b>Total</b>	<b>8</b>	<b>4</b>	<b>0</b>	<b>40</b>	<b>85</b>	<b>115</b>	<b>252</b>	<b>\$42,570</b>

**7. Additional Permitting Services**

The conceptual design was submitted to the City for comment on August 8<sup>th</sup>, 2025. Two comments received included the need for Act 167 permitting and Chapter 106 permitting. The

original agreement included evaluation of stormwater and erosion and sedimentation control requirements but did not include preparation of formal Act 167 or submittal of the Chapter 106 permit application to PADEP.

Act 167, also known as the Stormwater Management Act, establishes requirements for managing stormwater runoff from development projects with new impervious surfaces. The threshold for permitting is a cumulative 10,000 square feet (SF) and while this project will add only approximately 7,000 SF, a review of historic site development indicates that previous projects have contributed impervious surface well beyond the cumulative threshold. AECOM and LCA met with the City, and it was determined that Act 167 approval is required for this project.

Services for Act 167 permitting include the following:

- Completion of a regulatory review to identify project-specific requirements and development of a technical approach to address these requirements
- Development of a stormwater management plan, including calculations for runoff, proposed stormwater controls, and compliance documentation
- Preparation and submittal of the Act 167 permit application package to the City and responding to comments.

A Pennsylvania Chapter 106 Floodplain Management Permit is also required since the project is in the 100-year floodplain. Since the City owns the property and is the applicant, the permit must be reviewed and approved by PADEP. This review process requires additional effort not included in the original proposal. The purpose of the application is to demonstrate that the proposed construction will not result in a significant rise in base flood elevations or adversely impact floodplain storage or conveyance, and that no significant effects will occur to adjacent properties.

Additional services for Chapter 106 permitting include the following:

- Preparation of the permit application, including a project narrative, environmental assessment, hydrologic and hydraulic analyses, and supporting documentation
- Coordination and submittal of the application to PADEP, and response to comments

The original scope of services included effort for zoning and land development review. Through coordination with the City of Allentown, it was determined that formal zoning and land development submissions are not required, as zoning regulations do not apply to City-owned property. A credit reflecting the reduced effort for this item is included in the total amount of additional permitting services presented herein.

### **Additional Costs**

AECOM evaluated the additional permitting effort required to complete the Act 167 and Chapter 106 permitting and we are requesting an additional 260 hours and \$35,520 in labor costs. A breakdown of this effort by staff is provided in **Table 6**.

**Table 6. Permitting Cost Additions**

<b>Role</b>	<b>Project Manager</b>	<b>Project Engineer</b>	<b>Staff Engineer</b>		
<b>Name</b>	B. Deatrich	J. Jordan	J. Juliano		
<b>Bill Rate Title</b>	Project Manager II	Senior Engineer II	Staff Engineer I	<b>Total Hours</b>	<b>Labor</b>
<b>2026 Bill Rate</b>	\$200.00	\$180.00	\$108.00		
Task: Permitting Additions	30	65	165	260	\$35,520

**8. Pre-procurement Services**

Additional services related to pre-procurement were not included in AECOM’s original proposal. The original agreement assumed the project would be bid as a single construction package and did not include preparation of separate early procurement bid packages for long-lead equipment.

After reviewing the preliminary construction schedule and identifying several items with significant lead times, AECOM recommends using pre-procurement as a strategy to help avoid potential construction delays. Without early procurement, extended fabrication durations could delay overall project completion. Schedule is important to ensure the system is in operation by the PFAS compliance deadline of April 2029. AECOM recommends pre-procuring the pressure vessels which have a 10-month lead time.

AECOM will prepare comprehensive technical specifications and bid package for the pressure vessels and coordinate bidding effort with LCA. It is assumed one (1) pre-procurement package will be required and advertisement and bidding will be administered by LCA using PennBid. AECOM will assist with preparing bid documents, identifying reputable vendors, coordinating pre-bid meetings to clarify requirements, and responding to vendor questions throughout the bidding process.

Once proposals are received for the vessels, AECOM will review and evaluate submittals for technical compliance, delivery timelines, and overall value, then provide a clear recommendation for award.

Following award, AECOM will provide services for review of contractor submittals and respond to questions.

**Additional Costs**

AECOM evaluated the additional effort for pre-procurement services, assuming preparation of one (1) bid package, and we are requesting an additional 74 hours and \$12,504 in labor costs. A breakdown of this effort by staff is provided in **Table 7**.

**Table 7. Pre-procurement Additions**

Role	Project Manager	Lead Project Engineer	Staff Engineer	Discipline Dept. Lead	Total Hours	Labor
Name	B. Deatrich	B. Sadowski	J. Juliano	Various		
Bill Rate Title	Project Manager II	Senior Engineer II	Staff Engineer I	Tech Advisor /Specialist I		
2026 Bill Rate	\$200.00	\$180.00	\$108.00	\$250.00		
Task: Pre-Procurement Services	18	16	28	12	74	\$12,504

**Credit for PFAS Samples**

As noted in our earlier email correspondence dated November 5, 2025, AECOM has applied a **\$3,274** credit to our net not-to-exceed amount for PFAS samples collected for the field pilot on August 1 and August 15, 2025. The samples were collected unnecessarily due to miscommunication regarding the test plan.

**Summary**

The total amount of additional project costs described above is summarized in **Table 8** below and amounts to \$199,364. Timely approval of this amendment will maintain project momentum and prevent schedule impacts that could affect regulatory compliance and funding timelines.

**Table 8. Additional Costs Summary**

Task Description	Hours	Costs
Task 1. Additional Conceptual Engineering	172	\$26,080
Task 2. Scope of Work Additions	290	\$44,850
Task 3. Rate Escalation for Calendar Year 2026	--	\$22,600
Task 4. Auxiliary Spring Chamber Recommendations Memorandum	48	\$8,600
Task 5. Additional Geotechnical Investigations	68	\$9,914
Task 6. Additional Detailed Design Scope	252	\$42,570
Task 7. Additional Permitting Services	260	\$35,520
Task 8. Pre-Procurement Services	74	\$12,504
<b>Credit for PFAS Samples (8/1/2025 &amp; 8/15/2025)</b>	<b>--</b>	<b>(\$3,274)</b>
<b>Total</b>	<b>1,164</b>	<b>\$199,364</b>

*Note: Tasks 1 – 4 were submitted in the November 2025 Revision #1 and have been previously reviewed by LCA. Tasks 5 – 8 are new to this April 2026 Revision #2 and capture additional scope modifications.*

We propose the above-mentioned services on a time and materials (T&M) basis under the terms and conditions of our existing professional services agreement. Upon incorporation of this amendment, the total contract value will be \$1,368,050, which is reflected in **Table 9** below.

**Table 9. Contract Summary**

<b>Authorization</b>	<b>Amount</b>
Original Contract (Issued 1/9/2025)	\$1,168,686
<u>Amendment 1:</u>	\$199,364
<b>Total Amount</b>	<b>\$1,368,050</b>

**Assumptions and Exclusions**

The following assumptions were made when preparing Amendment No. 1:

- **Schedule:** The escalation costs are based on the assumption that the project will proceed according to the most recently distributed schedule, which includes the 30% design phase starting in September 2025 and completing in August 2026.
- **Pre-Procurement:** AECOM evaluated other long-lead items including booster pumps, VFDs, and electrical switchboard. At this time, these items are not recommended for pre-procurement. Amendment No. 1 includes effort for only the pre-procurement of the pressure vessels. Should additional items be pre-procured, AECOM will provide a separate estimate for this level of effort.

As outlined above, the additional effort described supports our delivery of a project that aligns with the requirements and preferences of LCA's engineering and operations staff. We welcome the opportunity to discuss these items further and appreciate the continued opportunity to support LCA and the WFP operations. Please don't hesitate to contact us with any questions.

Yours sincerely,



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**ATTACHMENT 1 – Bill Rate Schedule**  
**(From LCA-AECOM Master Services Agreement)**

Title	Billing Rate (CY 2023-2024)	Billing Rate (CY 2025-2027)	Percent increase
Project Director	280	285	1.8%
Sr Project Manager	225	235	4.4%
Project Manager II	195	200	2.6%
Project Manager I	180	185	2.8%
Deputy Project Manager	170	170	0.0%
<b>Sr. Technical Advisor/ Specialist IV</b>	N/A	295	N/A
Technical Advisor/ Specialist III	275	275	0.0%
Technical Advisor/ Specialist II	265	265	0.0%
Technical Advisor/ Specialist I	250	250	0.0%
<b>Senior Engineer IV</b>	N/A	225	N/A
Senior Engineer III	205	215	4.9%
Senior Engineer II	170	180	5.9%
Senior Engineer I	155	160	3.2%
Staff Engineer III	145	145	0.0%
Staff Engineer II	120	130	8.3%
Staff Engineer I	100	108	8.0%
Scientist III	160	160	0.0%
Scientist II	130	130	0.0%
Scientist I	85	90	5.9%
Sr Tech Support II	180	190	5.6%
Sr Tech Support I	165	165	0.0%
CADD/Tech Support III	145	155	6.9%
CADD/Tech Support II	125	130	4.0%
CADD/Tech Support I	90	90	0.0%
Resident Project Representative III	140	140	0.0%
Resident Project Representative II	115	120	4.3%
Resident Project Representative I	98	100	2.0%
Administrative Support II	98	98	0.0%
Administrative Support I	82	82	0.0%
Enterprise Capabilities III	80	80	0.0%
Enterprise Capabilities II	65	65	0.0%
Enterprise Capabilities I	40	40	0.0%
Intern	65	72	10.8%

**NONSALARY EXPENSES**

Subconsultants..... 1.10 times cost  
 Ordinary expenses..... 1.00 times cost

Non-salary expenses include, but are not limited to, such typical expenses as the cost of transportation and subsistence; telephone and telex-fax use, printing and reproduction; equipment and materials; identifiable supplies, outside consultant charges; subcontracts for services such as surveys and subsurface investigations; testing by in-house and commercial laboratories; charges by reviewing authorities; and similar out-of-pocket expenses. Billing rates are subject to increase during the course of each year if market adjustments are necessary and they are likely to change at the beginning of each calendar year following the end of year 2 of the contract.

***AECOM Proprietary Information***

**ATTACHMENT 2 – Amendment #1 Details**

**Original Fee Proposal:**

Task No.	Role	Project Director	Project Manager	Technical Specialist	Lead Proj. Eng/Process	Project Engineer	Staff Engineer	Permitting Lead	Discipline Dept. Lead	Discipline Sr. Engineer	Discipline Jr. Engineer	CADD Support	Estimating	Geotech	Survey	Total Hours	Labor
	Name	C. Curran	B. Deatrich	B. Clunie	B. Sadowski	P. Duggan	J. Szymanski	K. Du	Various	Various	Various	Various	Various	Various	Various		
	Bill Rate Title	Project Director	Project Manager II	Tech Advisor /Specialist III	Senior Engineer II	Senior Engineer I	Staff Engineer I	Project Manager I	Tech Advisor /Specialist I	Senior Engineer II	Staff Engineer II	CADD/Tech Support III	Sr Tech Support I	Staff Engineer III	CADD/Tech Support II		
Bill Rate	\$280.00	\$195.00	\$275.00	\$170.00	\$155.00	\$100.00	\$180.00	\$250.00	\$170.00	\$120.00	\$145.00	\$165.00	\$145.00	\$125.00			
1	Concept Development Phase	10	20	20	60	48	40					20				218	\$ 36,740
2	Site Investigation (Survey & Geotech)													82	174	256	\$ 33,640
3	Preliminary Design Phase (30%)	28	140	50	140	180	270		190	512	304	50	70			1,934	\$ 317,410
4	Final Design Phase (60%, 90%, Final)	20	198	20	70	250	390	40	282	764	450	60	120			2,664	\$ 429,440
5	Permitting Services Phase	4	20			80	120	200								424	\$ 65,420
6	Funding Assistance Services	2	8				16	12								38	\$ 5,880
7	Bidding Services Phase		20			40	100									160	\$ 20,100
8	RSSCT Testing															-	\$ -
9	Field Column Pilot	2	8	6	42		120		7	18	44					247	\$ 33,000
A	Scope of Work Additions								35	110	145					290	\$ 44,850
	<b>Totals</b>	<b>66</b>	<b>414</b>	<b>96</b>	<b>312</b>	<b>598</b>	<b>1056</b>	<b>252</b>	<b>514</b>	<b>1404</b>	<b>943</b>	<b>130</b>	<b>190</b>	<b>82</b>	<b>174</b>	<b>6,231</b>	<b>\$ 986,480</b>

**Estimated fraction of effort to occur in CY 2026:**

Task No.		Est % complete before 1/1/2026	Est % complete after 1/1/2026
1	Concept Development Phase	100%	0%
2	Site Investigation (Survey & Geotech)	100%	0%
3	Preliminary Design Phase (30%)	100%	0%
4	Final Design Phase (60%, 90%, Final)	13%	87%
5	Permitting Services Phase	0%	100%
6	Funding Assistance Services	0%	100%
7	Bidding Services Phase	0%	100%
8	RSSCT Testing	100%	0%
9	Field Column Pilot	100%	0%
A	Scope of Work Additions	20%	80%

**Additional (differential) Labor Costs for work performed under CY 2026 Bill Rates:**

Task No.	Role	Project Director	Project Manager	Technical Specialist	Lead Proj. Eng/Process	Project Engineer	Staff Engineer	Permitting Lead	Discipline Dept. Lead	Discipline Sr. Engineer	Discipline Jr. Engineer	CADD Support	Estimating	Geotech	Survey	Total Hours in CY 2026	Additional Labor Cost
	Name	C. Curran	B. Deatrich	B. Clunie	B. Sadowski	P. Duggan	J. Szymanski	K. Du	Various	Various	Various	Various	Various	Various	Various		
	Bill Rate Title	Project Director	Project Manager II	Tech Advisor /Specialist III	Senior Engineer II	Senior Engineer I	Staff Engineer I	Project Manager I	Tech Advisor /Specialist I	Senior Engineer II	Staff Engineer II	CADD/Tech Support III	Sr Tech Support I	Staff Engineer III	CADD/Tech Support II		
	Original Bill Rate	\$280.00	\$195.00	\$275.00	\$170.00	\$155.00	\$100.00	\$180.00	\$250.00	\$170.00	\$120.00	\$145.00	\$165.00	\$145.00	\$125.00		
	2026 Bill Rate	\$285.00	\$200.00	\$275.00	\$180.00	\$160.00	\$108.00	\$185.00	\$250.00	\$180.00	\$130.00	\$155.00	\$165.00	\$145.00	\$130.00		
Change in Bill Rate	\$5.00	\$5.00	\$0.00	\$10.00	\$5.00	\$8.00	\$5.00	\$0.00	\$10.00	\$10.00	\$10.00	\$0.00	\$0.00	\$5.00			
1	Concept Development Phase															-	\$ -
2	Site Investigation (Survey & Geotech)															-	\$ -
3	Preliminary Design Phase (30%)															-	\$ -
4	Final Design Phase (60%, 90%, Final)	18	174	18	62	219	339	39	247	669	394	53	105			2,337	\$ 16,742
5	Permitting Services Phase	4	20			80	120	200								424	\$ 2,480
6	Funding Assistance Services	2	8				16	12								38	\$ 238
7	Bidding Services Phase		20			40	100									160	\$ 1,100
8	RSSCT Testing															-	\$ -
9	Field Column Pilot								28	88	116					-	\$ -
A	Scope of Work Additions															232	\$ 2,040
	<b>Totals</b>	<b>24</b>	<b>222</b>	<b>18</b>	<b>62</b>	<b>339</b>	<b>575</b>	<b>251</b>	<b>275</b>	<b>757</b>	<b>510</b>	<b>53</b>	<b>105</b>	<b>0</b>	<b>0</b>	<b>3,191</b>	<b>\$ 22,600</b>

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# MEMORANDUM

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**Date:** April 17, 2026

**To:** Lehigh County Authority Board of Directors  
**From:** Anton Siekmann  
**Subject:** Allentown Division – Lead Service Line Replacement Program - Cycle 3 – Design Phase

**MOTIONS / APPROVALS REQUESTED:**

No.	Item	Amount
1	CDM Smith – Final Design and Bidding Services <sup>(1)</sup>	\$707,300

<sup>(1)</sup> *Included in the Capital Project Authorization*

**PROJECT BACKGROUND**

LCA’s Lead Service Line Replacement Program has initiated its third project, Cycle 3. This project continues the previous two cycles goal of removing lead and galvanized water service lines, per the directives established by the US Environmental Protection Agency’s (EPA) Lead and Copper Rule Revisions. This project aims to replace the public and private side service lines at 1000 addresses within five specific census tracts in the City of Allentown. To reach this goal, LCA has requested and been approved for, \$15,440,000 in funding via Pennvest.

**PROJECT SCOPE**

This project’s scope consists of the replacement of 1,000 lead or galvanized water service lines. It includes inventory work via in-home inspections and digging at the interface between the public and private service lines at the curb shutoff valve (curb stop). The replacements will be focused in the City of Allentown in census tracts 7, 8, 19, 21, and 97. A map is included in CDM Smith’s proposal.

**FINANCIAL**

This project represents Change of Law and will be funded by Allentown Division via grants and loans through the Pennvest program. The application was approved by Pennvest on April 15, 2026 for \$7,266,220 in grants and \$8,173,780 in low-interest loans.

**PROJECT STATUS**

In October 2025 CDM Smith was authorized to perform preliminary conceptual design and project management services. They were selected based on experience with prior lead service line replacement program design and project management. In December 2025 GFT was authorized to perform Pennvest application and administration services. In February 2026 LCA submitted the funding application to Pennvest. In March 2026 CDM Smith prepared a proposal for final design and bid phase services. On April 15, 2026 LCA received approval for that funding request.

**THIS APPROVAL – DESIGN AND BID PHASE**

Assuming authorization of Design and Bid phase services at the 4/27/2026 Board meeting, Design Phase is anticipated to be completed by August 2026 with Bids to be awarded in October 2026.

**PROFESSIONAL SERVICES**

CDM Smith will provide Design and Bid phase services. Their work will include

<b>Professional Services <sup>(1)</sup></b>
1. Test Pitting Services
2. Final Plans and Specification
3. Bidding Support
4. Project Management

*(1) See CDM's proposal dated March 27, 2026, for additional information*

**PROJECT SCHEDULE**

Assuming Design and Bid Phase authorization at the April 17, 2026 Board meeting, bidding is to begin August 2026 with bid opening in September 2026. Construction phase contracts are to be awarded October 2026 with Pennvest funding closing November 2026.

**FUTURE AUTHORIZATIONS:**

TBD



1053 SPRUCE RD \* P.O. BOX 3348 \* ALLENTOWN, PA 18106-0348  
 610-398-2503 \* email: service@lehighcountyauthority.org  
 www.lehighcountyauthority.org

## REQUEST FOR BOARD AUTHORIZATION

Board of Directors Meeting Date: 4/27/2026  
 Staff Member Requesting Authorization: Anton Siekmann  
 Department: Capital Works  
 Short Description / Title of Project / Purchase: Lead Service Line Replacement Project Cycle 3 – Design & Bid  
 Project Number (if applicable): #AD-W-26 / 50712

**Capital Expense:** (check all that apply)

- Capital Project >\$250,000
  - Construction / Other Contract(s)
  - Professional Services Authorization
  - Initial Authorization
  - Amended Authorization
- Professional Services Authorization >\$100,000
- Equipment Purchase >\$250,000
- Upsizing / Extension >\$250,000
- Aggregate Change Order >10% of contract and >\$100,000
- Stand-Alone Change Order >\$50,000

**Operations Expense:**

- Construction / Other Contract >\$250,000
- Professional Services Authorization >\$100,000
- Equipment / Other Individual Item >\$250,000
- Emergency Authorization >\$50,000
- Aggregate Change Order >10% of contract and >\$100,000
- Stand-Alone Change Order >\$50,000

**LCA Enterprise Fund:**     Allentown Division     Suburban Water     Suburban Wastewater     Internal Service / Admin

**Current Project Phase:**     N/A (skip to Description)     Planning     Conceptual Design     Design / Bid     Construction

**Prior Authorization(s):**

Date	Phase	Description	Amount Authorized
10/14/2025	Design	CDM Smith - Preliminary Conceptual Design	\$45,400
12/17/2025	Design	GFT – Pennvest Funding Application	\$47,000
			\$
<b>Total Prior Authorizations:</b>			<b>\$92,400</b>

**Current Authorization Requested:**

Description	Amount Requested
CDM Smith – Property Investigation, Final Plans and Specs, Bid management , Project Management	\$707,300
LCA Staff Time	\$70,000
Contingency	\$70,000
	\$
	\$
	\$
	\$
<b>Total Amount Requested (this authorization):</b>	<b>\$847,300</b>

**Future Authorizations:**

Phase	Note / Description	Estimated Cost
Construction		\$TBD
		\$
<b>Estimated Total Project Cost:</b>		<b>\$</b>

**Short Description:** (please attach supporting documentation, cost justification, trade-in values, proposals, memos, etc.)

Authorization request for CDM Smith to complete final design and bidding services for LSLR Cycle 3 project. Project goal is to replace lead and galvanized services lines at 1000 addresses in specific census tracts in Allentown. Proposal includes budget for CDM to hire a subcontractor to perform potholing investigation work to support prioritization. See attached proposal for more information.

**Purchasing Procedure:**     Formal Bid     Request for Proposal     Cooperative Purchasing Group / CoStars     N/A - Emergency

**Motion:** \_\_\_\_\_ **Second:** \_\_\_\_\_ **Approved?** \_\_\_\_\_ **Certified by:** \_\_\_\_\_



Two Penn Center Plaza  
1500 JFK Boulevard, Suite 1208  
Philadelphia, Pennsylvania 19102  
tel: 215 636-0600

March 27, 2026

Mr. Anton Siekmann  
Project Manager  
Lehigh County Authority  
1242 Martin Luther King Jr. Drive  
Allentown, PA 18102

Subject: Cycle 3 Lead Service Line Replacement Program Test Pitting Support Services

Dear Mr. Siekman:

CDM Smith Inc. (CDM Smith) has prepared this proposal to provide additional support to Lehigh County Authority (LCA) with its ongoing Cycle 3 lead service line replacement (LSLR) program. This proposal is for support with the planning, bidding, contractor selection, and field oversight of a test pitting program to identify properties for future Cycle 3 replacements. Additionally, the proposed scope of work includes the support needed to finalize biddable plans and specifications for the Cycle 3 LSLR construction contract, along with bidding support services for selection of the Cycle 3 contractors.

## Scope of Services

### Task 1 – Test Pitting Services

CDM Smith will identify capable companies and prepare internal procurement documents to obtain competitive bids from subcontractors to perform test pits and associated restoration at approximately 370 addresses with unknown service line material. CDM Smith will be responsible for planning this work, preparing the test pit requirements, address list, and subcontracting the work. The draft procurement documents will be delivered to LCA electronically for review and comment. CDM Smith will then finalize the procurement documents and electronically distribute to at least five pre-qualified subcontractors. CDM Smith will hold a virtual (MS Teams) pre-bid meeting with the respective bidders to review the scope of services and answer questions about the contract. The quotes submitted by bidders will be reviewed and an award recommendation will be provided to LCA for approval before issuing a subcontract. It is understood that contractor payments must be separated between those investigations that identify lead/galvanized and those that identify nonlead. An estimate of \$1,500 per address is assumed in this proposal, however the actual cost will be based on the bid pricing of the selected contractor. It is assumed that the test pits will be small vacuum excavations on one or both sides of the curb stop and located at least 18" from the curb stop. It is assumed that pitcher filters will not need to be distributed to the customer prior to October 2027.

CDM Smith will provide a full-time field inspector to supervise the contractor's test pitting crew. Our inspector will be responsible for day-to-day field management, inspection of the work, and documentation of the test pit results utilizing the LCA Survey123 form. Documentation photos will include ruler (>18" from the curb stop) and whiteboard with address, material, and size data. If the



private side of the water service line is unknown and the customer is at home and willing to allow an internal inspection of the private side material, the CDM Smith inspector will complete this inspection in lieu of a test pit on the private side. This internal inspection will be documented utilizing the LCA Survey123 form. All restoration work will be inspected following completion of the work. Assuming a test pit production rate by the selected contractor of 10 per day, 37 test pit inspection days are included. Five additional restoration inspection days are assumed for a total of 42 days of field inspection by CDM Smith's inspector.

### **Task 2 – Final Plans and Specifications for Cycle 3**

CDM Smith will prepare Contract Documents for two contracts, each consisting of 500 lead service line replacements. The Contract Documents will be based on the plans and specifications included in the Cycle 3 PENNVEST funding application and will include the following:

- Front-end specifications (provided by LCA). CDM Smith will modify the standard front-end documents to meet the specific PENNVEST requirements.
- Project technical specifications.
- Definition of the work area; including mapping and Excel tables defining the work addresses.
- Standard installation and restoration details.
- Details governing the construction activities such as traffic control, sedimentation and erosion control.

Utility and/or topographic surveys are excluded from our proposed scope of work. CDM Smith has prepared a 90-percent complete set of Contract Documents that was part of the PENNVEST funding application. CDM Smith will address review comments received from the DEP, PENNVEST, and LCA and will issue a final set of complete specifications and drawings for bidding.

### **Task 3 – Cycle 3 Bidding Support**

Following completion of the final design and the approval and acceptance of the PENNVEST funding allocation for the project, CDM Smith will support the competitive bidding processes for the construction project and provide the following:

- Upload of Project Plans and Specifications to PennBid: LCA will utilize the PennBid online bid management system for its procurement of a contractor for the Cycle 3 LSLR Project. As engineer for this project, CDM Smith will manage the upload of all bid documents, including the preparation and upload of the bid form.

- **Facilitation of Pre-Bid Meeting:** CDM Smith will prepare materials for presentation to prospective bidders at LCA's office. The pre-bid meeting will be attended by CDM Smith's Project Manager and Construction Administrator.
- **Respond to Requests for Information:** During the bidding period, CDM Smith will monitor PennBid for requests for information and technical questions posted by bidders and respond to the posted questions through PennBid in a timely manner.
- **Issue Addenda (if needed):** If bidder questions result in the need for addenda to the bid documents, CDM Smith will prepare the necessary addenda and issue to bidders through the PennBid system. For planning and budgeting purposes, it has been assumed that up to two addenda will be required for each contract during the bidding process.
- **Review Bids and Recommendation:** Following the opening of bids on PennBid, CDM Smith will review the bids received, review the references and experience of the low bidder, and make a recommendation to LCA with regard to the award of the construction contracts.
- **Funding Support:** Throughout the bid process, CDM Smith will support LCA and their funding coordinator through PENNVEST loan closing.

#### **Task 4 – Project Management**

CDM Smith will provide project management activities including scheduling, resource management, monthly invoicing, and quality management. We have assumed that this additional Cycle 3 work will continue to occur concurrently with the ongoing Cycle 2 construction project and will be completed within seven months of receiving authorization from LCA to proceed as detailed in the Schedule section below. Consequently, we have not included time for bi-weekly progress meetings because these meetings are already included in the Cycle 2 scope of services.

### **Schedule**

The following project schedule is anticipated, assuming notice to proceed in early April 2026.

- Cycle 3 project PENNVEST funding approval – April 2026
- Notice to Proceed to CDM Smith – end of April 2026
- Potholing subcontracting – May 2026
- Potholing – June & July 2026
- Cycle 3 Bid – August 2026
- Cycle 3 Open Bids – September 2026



Mr. Anton Siekman  
March 27, 2026  
Page 4

- Cycle 3 Award – October 2026
- PENNVEST closing – November 2026

If there are any unforeseen delays in the completion of the test pitting program that extends the work beyond the end of July 2026, CDM Smith will continue the test pitting program while concurrently preparing the Cycle 3 bid documents for construction. The specifications will be modified to acknowledge that additional lead service line replacement addresses will be provided to the selected contractor as they become available, similar to the approach for Cycle 2.

## Fee

CDM Smith proposes to invoice by Task as outlined in the Table provided below. All work described above will be completed in accordance with our existing Master Services Agreement (as extended through December 1, 2027) with LCA. We will bill LCA monthly based on the amount of work completed. Other direct costs, such as copying, field equipment, and printing will be billed at actual cost with no additional markup. Mileage for necessary project-related travel will be billed at the U.S. General Services Administration mileage reimbursement rate (presently \$0.70 per mile).

Task Description	Hours	CDM Smith Labor Cost	Subcontractor	Other Direct Costs	Extended Cost
Task 1 – Test Pitting Support	504	\$63,250	\$582,750	\$3,100	\$649,100
Task 2 – Final Plans and Specifications	136	\$20,100	\$0	\$0	\$20,100
Task 3 – Cycle 3 Bidding and Selection	118	\$19,400	\$0	\$100	\$19,500
Task 4 – Project Management	100	\$18,600	\$0	\$0	\$18,600
<b>Project Totals</b>	<b>858</b>	<b>\$121,350</b>	<b>\$582,750</b>	<b>\$3,200</b>	<b>\$707,300</b>





Mr. Anton Siekman

March 27, 2026

Page 5

We look forward to working with LCA on these Cycle 3 LSLR Program services. If there are any questions or issues, please do not hesitate to contact me by either phone (215) 239-6522 or email [hammelljo@cdmsmith.com](mailto:hammelljo@cdmsmith.com).

Sincerely,

CDM Smith Inc.

A handwritten signature in blue ink that reads "John O. Hammell".

John O. Hammell, PE, PMP  
Principal-in-Charge/Client Service Leader

cc: AJ Capuzzi, Lehigh County Authority  
B. Lubenow, CDM Smith  
S. Loughery, CDM Smith



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# MEMORANDUM

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**Date:** April 17, 2026

**To:** Lehigh County Authority Board of Directors  
**From:** Anton Siekmann  
**Subject:** Allentown Division – Schantz Gravity Line – Source Water Study - Planning

**MOTIONS / APPROVALS REQUESTED:**

No.	Item	Amount
1	GFT – Planning – Pilot Scale Filtration Testing	\$234,800

**PROJECT BACKGROUND**

This project’s goal is to optimize the use of the Schantz Spring for increased protection of public health. Schantz Spring is currently classified as a groundwater source and therefore not required to undergo coagulation treatment and filtration. However, water quality is impacted at times by increased turbidity and other factors that suggest filtration would provide an overall improvement to water quality, public health protection, and sustainability of this important water source. In March 2026, LCA began work on conceptual design of the potential interconnection at the Water Filtration Plant (WFP) that would be utilized to bring Schantz Spring water into the filtration system at the plant. The next planning phase task includes bench-scale testing of the treatment of Schantz Spring water to maintain consistency with Pa. Department of Environmental Protection (PADEP) guidance for pilot plant filtration studies.

**PROJECT SCOPE**

The purpose of this pilot testing is to demonstrate direct filtration performance under representative operating conditions and to generate operational data consistent with PADEP guidance for pilot plant filtration studies for surface water and groundwater sources that require filtration. The pilot study will evaluate coagulant dosing, filter effluent turbidity, filter headloss and filter run duration, and backwashing effectiveness to support regulatory coordination and future design decisions.

**FINANCIAL**

This project will be funded by the LCA Allentown Division.

**PROJECT STATUS**

In December 2025, Corona Environmental Consulting submitted a treatment evaluation for the Schantz Spring that reviewed water quality characteristics of the water source, validating the benefits that could be gained from enhanced treatment via filtration. The report detailed events over time in which the Schantz Spring water supply appears to be impacted by rain events and other above-ground activities. This is illustrated by increased turbidity (cloudiness) in the water after a rain event, and other parameters reviewed in the study. The addition of filtration to the treatment process for Schantz Spring water will lower the risk of public health impacts associated with these findings. Also, the treatment enhancement for the spring water will improve the sustainability of this high-value source, as the use of Schantz Spring can be continued in all weather conditions. In February, 2026 LCA requested a proposal from GFT to design the filtration study. They were selected based on their prior experience and expertise in engineering and managing other project with LCA.

**THIS APPROVAL – DESIGN AND BID PHASE**

Assuming authorization of Planning Phase services at the April 27, 2026 Board Meeting, bench testing is expected to be completed in December 2026.

**PROFESSIONAL SERVICES**

GFT will provide Planning professional services. Their work will include:

<b>Professional Services <sup>(1)</sup></b>
1. Project Coordination and Planning
2. Pilot Test Protocol
3. Pilot Plan Equipment
4. Pilot Testing
5. Data Review and Reporting

*(1) See GFT's proposal dated March 26, 2026, for additional information*

**PROJECT SCHEDULE**

Assuming authorization of Planning Phase services at April 27, 2026, Board Meeting, bench testing is expected to begin in May, 2026 with completion of the pilot testing in October 2026. A final report will be submitted December 2026.

**FUTURE AUTHORIZATIONS:**

TBD



1053 SPRUCE RD \* P.O. BOX 3348 \* ALLENTOWN, PA 18106-0348  
 610-398-2503 \* email: service@lehighcountyauthority.org  
 www.lehighcountyauthority.org

## REQUEST FOR BOARD AUTHORIZATION

Board of Directors Meeting Date: 4/27/2026  
 Staff Member Requesting Authorization: Anton Siekmann  
 Department: Capital Works  
 Short Description / Title of Project / Purchase: Schantz Spring Gravity Line – Source Water Study  
 Project Number (if applicable): #AD-W-15 / 50733

**Capital Expense:** (check all that apply)

- Capital Project >\$250,000
  - Construction / Other Contract(s)
  - Professional Services Authorization
  - Initial Authorization
  - Amended Authorization
- Professional Services Authorization >\$100,000
- Equipment Purchase >\$250,000
- Upsizing / Extension >\$250,000
- Aggregate Change Order >10% of contract and >\$100,000
- Stand-Alone Change Order >\$50,000

**Operations Expense:**

- Construction / Other Contract >\$250,000
- Professional Services Authorization >\$100,000
- Equipment / Other Individual Item >\$250,000
- Emergency Authorization >\$50,000
- Aggregate Change Order >10% of contract and >\$100,000
- Stand-Alone Change Order >\$50,000

**LCA Enterprise Fund:**     Allentown Division     Suburban Water     Suburban Wastewater     Internal Service / Admin

**Current Project Phase:**     N/A (skip to Description)     Planning     Conceptual Design     Design / Bid     Construction

**Prior Authorization(s):**

Date	Phase	Description	Amount Authorized
3/20/2026	Design	Conceptual Design of new interconnection at WFP	\$38,125
			\$
			\$
<b>Total Prior Authorizations:</b>			<b>\$</b>

**Current Authorization Requested:**

Description	Amount Requested
Pilot-Scale Direct Filtration Testing	\$184,800
LCA Staff Time	\$40,000
Contingency	\$10,000
	\$
	\$
	\$
	\$
<b>Total Amount Requested (this authorization):</b>	<b>\$234,800</b>

**Future Authorizations:**

Phase	Note / Description	Estimated Cost
Construction		\$TBD
		\$
<b>Estimated Total Project Cost:</b>		<b>\$</b>

**Short Description:** (please attach supporting documentation, cost justification, trade-in values, proposals, memos, etc.)

Pilot-scale testing of filtration of Schantz Spring source water for improved quality.

**Purchasing Procedure:**     Formal Bid     Request for Proposal     Cooperative Purchasing Group / CoStars     N/A - Emergency

**Motion:** \_\_\_\_\_ **Second:** \_\_\_\_\_ **Approved?** \_\_\_\_\_ **Certified by:** \_\_\_\_\_



**Lehigh County Authority**

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

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**MEMORANDUM**

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**Date:** April 27, 2026

**To:** LCA Authority Board

**From:** Jason Peters, Capital Works Linear Asset Project Manager

**Subject:** Allentown Division - Cycle 2 Manhole Rehabilitation Project  
Construction Phase

**MOTIONS /APPROVALS REQUESTED:**

No.	Item	Amount
1	<u>Capital Project Authorization - Construction Phase:</u> Allentown Division Cycle 2 Manhole Rehabilitation Project	\$571,280
2 **	<u>Professional Services Authorization:</u> <ul style="list-style-type: none"> <li>• Construction Engineering and Administration Services - <i>Arcadis</i></li> </ul>	\$140,000
3 **	<u>General Construction Contract:</u> <ul style="list-style-type: none"> <li>• General Construction – <i>Environmental Service Corporation</i></li> </ul>	\$381,280

(\*\*) *Included in the Capital Project Authorization*

**BACKGROUND:**

As part of Act 537 planning, all of the sanitary sewer manholes in the City of Allentown are to be inspected over a 10-year period. This is the second cycle of an annual project to rehabilitate manholes in the City based on the inspection results. Approximately 4,000 manholes have been inspected to date with stormwater inflow and other issues having been identified. The program will continue until all manholes in the City system have been inspected and rehabilitated as necessary with the objective of eliminating inflow.

**PROJECT OVERVIEW:**

Based upon evaluation of the City Manhole Rehabilitation Cycle 1 pilot project rehabilitation methods and continued manhole inspection efforts performed by Arcadis, the Cycle 2 project scope was developed. This year’s manhole rehabilitation project identified the need to

rehabilitate approximately 425 manholes throughout the following City drainage basins: Industrial, Tioga, and Juniata. These efforts will be partially accomplished via the contracted work outlined in this approval to handle the larger scale rehabilitation items such as replacement or resetting of frames and covers and water seal chimney wrapping that is required for 78 of the 425 manholes. LCA’s Field Services Department will then address the balance of 347 manholes requiring non-structural O&M related work such as installation of watertight inserts, gaskets, etc. The Cycle 2 manhole rehabilitation work will precede post-rehabilitation effectiveness monitoring that is to commence late 2026 or early 2027.

**FUNDING:**

The Project will be funded by the LCA Allentown Division.

**PROJECT STATUS:**

In November 2025 the Board approved the Design Phase for the Allentown Division Cycle 2 Manhole Rehabilitation Project. Working closely with the City, LCA staff have obtained all approvals for the Cycle 2 Construction Phase and Board authorization for construction phase is requested.

**THIS APPROVAL: CONSTRUCTION PHASE CYCLE 2**

The Allentown Division Cycle 2 Manhole Rehabilitation Project includes the reset and or replacement of approximately 78 frame and covers throughout the Industrial, Tioga, and Juniata basins in the City.

**BIDDING SUMMARY - CONSTRUCTION CONTRACTS:**

The project was advertised for bid on March 6, 2026; a mandatory pre-bid meeting was held virtually on March 18, 2026, with six contractors in attendance. Bids were opened on April 3, 2026. 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>Environmental Service Corporation</i>	<i>\$381,280</i>
Triangle Contracting, LLC	\$680,600

Two bids were received for the Construction Contract. Environmental Service Corporation (Scranton, PA) is the low bidder; the firm has more than 50 years of water and wastewater facility rehabilitation experience, and their qualifications meet LCA’s requirements. The bid documents are in order and the firm appears well qualified to perform the work. We recommend award of the Contract to Environmental Service Corporation, upon receipt of the required bonds and insurance.

## **PROFESSIONAL SERVICES CYCLE 2:**

### ***1. Construction Engineering & Management***

Arcadis, the design engineer of record, will provide construction engineering, management, and inspection services for the duration of construction phase of the project. The work will generally include:

- Review schedules and shop drawing submittals
- Provide senior construction engineer oversight during the first day of each rehabilitation technique and a minimum of one full day per month to ensure compliance with the project manual. Following are rehabilitation techniques to be utilized:
  - *Manhole frame and cover replace/reset*
  - *FRCL lining*
  - *Chimney sealing*
  - *Gasket restoration*
  - *Inflow dish restoration*
  - *Concrete injection grouting*
  - *Frame/cover interface cleaning*
  - *O-ring installation and frame gasket installation*
- Conduct preconstruction conference.
- Provide part-time construction engineer inspection for contracted work and LCA performed work
- Prepare inspector's daily reports, update Manhole Tracker and Progress Tracker software, and provide updates to LCA
- Conduct monthly progress meetings, issue meeting minutes
- Review monthly payment applications and certified payroll receipts
- Prepare Change Orders.
- Respond to contractor Requests-for-Information (RFIs)
- Provide LCA with recommendation on completeness of work, final acceptance and release of final payment.
- Maintain daily record of project activities, quantities of work performed, site conditions, etc.
- Review documentation for change order requests and process change orders
- Review post-construction inspections, prepare punchlist
- Perform substantial completion and final completion inspections
- Provide city and LCA with all inspection data, reports, and Manhole Tracker databases for incorporation into GIS and CMMS as part of record documents

### **SCHEDULE:**

Assuming approval of the Construction Phase at the April 27, 2026 LCA Board meeting, construction will commence in late Spring and will be completed by the end of October 2026 barring no unforeseen conditions.



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 610-398-2503 \* email: service@lehighcountyauthority.org  
 www.lehighcountyauthority.org

## REQUEST FOR BOARD AUTHORIZATION

Board of Directors Meeting Date: 4/27/26  
 Staff Member Requesting Authorization: Jason Peters / Charles Volk  
 Department: Capital Works  
 Short Description / Title of Project / Purchase: Allentown Division – Cycles 2 Manhole Rehabilitation Project  
 Project Number (if applicable): Munis 50615

**Capital Expense:** (check all that apply)

- Capital Project >\$250,000
  - Construction / Other Contract(s)
  - Professional Services Authorization
  - Initial Authorization
  - Amended Authorization
- Professional Services Authorization >\$100,000
- Equipment Purchase >\$250,000
- Upsizing / Extension >\$250,000
- Aggregate Change Order >10% of contract and >\$100,000
- Stand-Alone Change Order >\$50,000

**Operations Expense:**

- Construction / Other Contract >\$250,000
- Professional Services Authorization >\$100,000
- Equipment / Other Individual Item >\$250,000
- Emergency Authorization >\$50,000
- Aggregate Change Order >10% of contract and >\$100,000
- Stand-Alone Change Order >\$50,000

**LCA Enterprise Fund:**     Allentown Division     Suburban Water     Suburban Wastewater     Internal Service / Admin

**Current Project Phase:**     N/A (skip to Description)     Planning     Conceptual Design     Design / Bid     Construction

**Prior Authorization(s):**

Date	Phase	Description	Amount Authorized
11/10/25	Design	Design, Permit and Bid Phase cycle 2	\$160,000
			\$
			\$
<b>Total Prior Authorizations:</b>			<b>\$160,000</b>

**Current Authorization Requested:**

Construction Phase Cycles 9 & 10	Amount Requested
Staff	\$10,000
Construction Engineering/Management/Inspection -Arcadis	\$140,000
General Construction– Environmental Service Corp	\$381,280
Contingency	\$40,000
	\$
	\$
<b>Total Amount Requested (this authorization):</b>	<b>\$571,280</b>

**Future Authorizations:**

Phase	Note / Description	Estimated Cost
		\$
		\$
<b>Estimated Total Project Cost:</b>		<b>\$731,280</b>

**Short Description:** (please attach supporting documentation, cost justification, trade-in values, proposals, memos, etc.)

The Allentown Division Cycle 2 Manhole Rehabilitation Project Construction Phase includes the reset and or replacement of approximately 78 frame and covers throughout the Industrial, Tioga, and Juniata basins in the City. All of cycle 2 rehabilitation work will assist in facilitating the post-rehabilitation effectiveness monitoring that is slated for late 2026 or early 2027.

**Purchasing Procedure:**     Formal Bid     Request for Proposal     Cooperative Purchasing Group / CoStars     N/A - Emergency

**Motion:** \_\_\_\_\_ **Second:** \_\_\_\_\_ **Approved?** \_\_\_\_\_ **Certified by:** \_\_\_\_\_

Mr. Jason Peters  
Capital Works  
Lehigh County Authority  
1053 Spruce Road  
Allentown, PA 18106-0348

Arcadis U.S., Inc.  
1600 Market Street  
Suite 1810  
Philadelphia  
Pennsylvania 19103  
Tel 215 625 0850  
[www.arcadis.com](http://www.arcadis.com)

Subject:  
City of Allentown Manhole Rehabilitation Year 2 Project  
Construction Engineering Scope and Budget Proposal

WATER

Dear Mr. Peter:

Arcadis U.S., Inc. (Arcadis) is pleased to submit this proposal to provide construction engineering services to LCA for the City of Allentown Manhole Rehabilitation Year 2 construction project. This scope and budget cover construction engineering, administration, and inspection services for both the bid work to be conducted by outsourced contractors via PennBid and work conducted by LCA.

This scope and budget covers work from project pre-construction meetings through final completion. It does not cover the planned subsequent warranty inspections 12-18 months after Substantial Completion.

Date:  
February 4, 2026

Contact:  
Jim Shelton

Phone:  
302.723.1450

Email:  
James.Shelton@  
arcadis.com

## OBJECTIVES

The objective of this work is to engage with the outsourced contractor crew(s), with LCA Field Services crew(s), and with LCA Capital Works staff to ensure the construction plans and specifications for manhole rehabilitation are implemented to provide highly effective inflow reduction.

## ASSUMPTIONS

This project has 78 manholes designated for rehabilitation under a “Rehabilitation” project to be awarded by LCA to a contractor and 324 manholes to be rehabilitated by LCA Field Services under a “Maintenance”

*This proposal and its contents shall not be duplicated, used, or disclosed — in whole or in part — for any purpose other than to evaluate the proposal. This proposal is not intended to be binding or form the terms of a contract. The scope and price of this proposal will be superseded by the contract. If this proposal is accepted and a contract is awarded to Arcadis as a result of — or in connection with — the submission of this proposal, Arcadis and/or the client shall have the right to make appropriate revisions of its terms, including scope and price, for purposes of the contract. Further, client shall have the right to duplicate, use, or disclose the data contained in this proposal only to the extent provided in the resulting contract.*

project. Work is expected to be completed by December 1, 2026. Constructed value of the work is estimated at \$1,000,000.

## SCOPE OF WORK

Successful manhole rehabilitation requires rigorous evaluation of the contractor's submittals and oversight by knowledgeable, experienced personnel to ensure the work is properly constructed given the field conditions at the time of installation. As a licensed contractor who has constructed hundreds of manhole rehabilitations, we understand this type of construction far better than typical consulting inspectors and usually far better than contractors performing the work, to the point that we usually train the contractor's field staff in the proper manhole rehabilitation construction methods. The value to LCA and the City in having Arcadis conduct these services is the peace of mind that comes from knowing a team of engineers knowledgeable and experienced in the design and construction of these technologies, especially with those aspects that prevent construction and post-construction failures, is overseeing the work.

Arcadis will provide construction engineering and contract administration services for the duration of the contract.

Arcadis will:

- Review schedules and shop submittals (of which 12 have been assumed) for compliance with the contract documents.
- Provide senior Construction Engineer oversight during the first day of each of the below rehabilitation techniques to ensure special manhole rehabilitation techniques are understood/taught to and properly implemented.
  1. Manhole frame and lid raising/resetting/replacing (LCA and outside contractor)
  2. FRCL lining (outside contractor)
  3. Chimney sealing (LCA and outside contractor)
  4. Lid cleaning and gasket restoration (LCA and outside contractor)
  5. Inflow dish restoration (LCA and outside contractor)
  6. Precast concrete injection grouting (outside contractor)
  7. Metal grade ring grouting (LCA)
  8. Frame and cover interface cleaning (LCA and outside contractor)
  9. Lid o-ring installation (LCA)
  10. Frame flat gasket installation(LCA and outside contractor)
- Provide part-time Construction Engineer during rehabilitation. For the purposes of this proposal, we have assumed LCA will conduct work over 50 construction activity days, and that Arcadis will provide 1.5 hours per day of documentation of

work. For the purposes of this proposal, we have assumed the outside contractor will work with 1 to 2 crews (our trained Construction Engineers can handle up to 5 crews working on the same project) for 40 construction days, and that our construction oversight will require site presence for an average of 5 hours per construction day to oversee the critical aspects of rehabilitation and to complete the final manhole AMHIT inspections.

- Provide regular oversight by senior construction engineer. For purposes of this proposal, we have assumed Emily Sadowsky will be on-site one day per month.
- Provide senior oversight remotely daily to construction engineer and Contractor's crews to successfully guide the work.
- Prepare inspectors daily reports (IDRs), update Manhole Tracker, update Pay Item Progress Tracker, and update Issues Tracker daily for both sets of work.
- Prepare agendas, report progress, chair meetings, and issue minutes for progress meetings every 4 weeks.
- Review monthly pay estimates submitted by the contractor and prepare recommendations to LCA.
- Review Post Construction inspections conducted by the Contractor, recommend remedial action or deductions for out-of-specification defects, and prepare punch list.
- Participate in the preparation of the certificate of completion (issued for Substantial Completion).
- Provide City and LCA with all inspections and rehabilitation reports, photos, videos, and databases for incorporation into their GIS or CMMS as part of the Record Plan for the project.
- Provide final Manhole Tracker databases to each City and LCA for incorporation into their GIS or CMMS as part of the Record Plan for the project.

LCA will:

- Attend preconstruction and progress meetings.
- Respond to request for information in a timely fashion.

## Budget

We estimate the cost and level of effort of this work as shown in the table below.

Task No.	Task Name	Total Hours	Expenses and Subs	Estimated Budget
1	Construction Administration	201	\$ 700	\$ 42,000
2	Construction Engineering	382	\$ 16,000	\$ 90,000

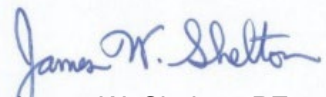
<b>PM</b>	<b>Project Management and Non-Progress Meetings</b>	39	\$ -	\$ 8,000
<b>Total</b>		<b>623</b>		<b>\$ 140,000</b>

We propose to complete these services on a time and materials basis in accordance with the Agreement between LCA and Malcolm Pirnie, Inc., and the current Summary of Standard Charges for Lehigh County Authority. Arcadis will track the costs associated with this work and report them to LCA monthly throughout the project; we will not exceed the authorized budget without written professional services authorization from LCA. Payment for services will be based upon the actual labor and expenses incurred. Invoicing will be completed monthly. The invoice will include the defined contract tasks listing the day-by-day personnel performing the task with hourly rate and hours worked. The invoice will provide total billed for month. Support documents will be provided if there are any expenses incurred.

Please contact me with your authorization to proceed if this scope and budget are acceptable to you. If you have any questions, please do not hesitate to call me.

Sincerely,

Arcadis U.S., Inc.



James W. Shelton, PE  
 Vice President – Buried Infrastructure

Copies:

Cc: Tony Dill

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# MEMORANDUM

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**Date:** April 27, 2026

**To:** LCA Board of Directors  
Liesel Gross, CEO

**From:** Stephen Boone, Asset Management Engineer

**Subject:** Allentown Division – KIWWTP Nitrification Stress Testing Study

**MOTIONS / APPROVALS REQUESTED:**

No.	Item	Amount
1	Capital Project Authorization: Allentown Division – KIWWTP Nitrification Stress Testing Study	\$228,290
1A*	Professional Services Authorization: AECOM – KIWWTP Nitrification Stress Testing Study	\$178,290

\*Included in the Capital Project Authorization

**AUTHORIZATION OVERVIEW:**

One of the long-term strategies under evaluation for the Kline’s Island Sewer System (KISS) is to reduce the scope of treatment at LCA’s Pretreatment Plant (PTP) as part of a full-scale upgrade of the facility or possibly discontinue operation of the facility. This will result in higher amounts of organic loading being transported downstream to the Kline’s Island Wastewater Treatment Plant (KIWWTP) for final treatment.

In all scenarios, the organic waste loading being transported to the KIWWTP for treatment will fall within the plant’s permitted capacity of 70,000 pounds per day of biological oxygen demand, or BOD, which is a standard measure of organic loading. When the KIWWTP Master Plan was updated in 2024, this was a key assumption included in the Master Plan, which is serving as the roadmap for project planning at the KIWWTP. One of the immediate-term projects recommended in the Master Plan is to stress test the plant’s Nitrification performance, which will help LCA understand the true biological treatment capacity of the facility, which is an important consideration as the PTP projects move forward and deliver higher loading to Allentown.

To clarify some of the technical language in this memo, the following explanations are offered:

*Impact of Increased Loadings* – LCA is interested in learning more about two primary impacts on the KIWWTP if organic loading (BOD) is increased because of system growth and/or PTP operational changes. First is the increase in solids, which are created through the treatment process as the solids are separated from the treated wastewater. Enhanced solids management is being evaluated via the pilot testing of chemically enhanced primary treatment (CEPT) initiated in 2025, and more broadly through the Holistic Solids Management Study, which LCA’s Board authorized in March 2026. The second area of concern is related to Nitrification, which is described in more detail below and will be investigated through the Nitrification Stress Testing Study proposed in this memo.

*Design Capacity (Organic)* – Within the treatment plant permit, the highest allowable daily organic load is specified. This is the highest level of incoming organic waste that the plant is expected to be able to treat reliably and still meet its Effluent Limit. For Design Capacity (Organic), BOD is expressed in pounds per day. The Design Capacity (Organic) of the KIWWTP is 70,000 pounds per day of BOD.

*Effluent Limit* – The primary mechanism in the KIWWTP’s National Pollution Discharge Elimination System (NPDES) permit for controlling discharges of pollutants into the Lehigh River includes Effluent Limits, which cannot be exceeded on a monthly average basis. The main focus of this Study is the Effluent Limit for ammonia, which is 5.0 milligrams per liter (mg/L) from May 1 to October 31 each year, and 15.0 mg/L from November 1 to April 30 each year. The higher limit is provided in the plant’s permit in the colder months of the year to reflect seasonal differences in Nitrification performance.

*Nitrification* – Within the treatment process, the incoming organic loading (BOD) is treated through a biological process in which microorganisms convert toxic ammonia ( $\text{NH}_3$ ) into nitrate ( $\text{NO}_3$ ), which can be discharged into the receiving Lehigh River in a manner that is more beneficial to the environment. At the KIWWTP, this biological process predominantly occurs in the Plastic Media Trickling Filters (PMTF) and Rock Media Trickling Filters (RMTF).

*Trickling Filters* – In the biological treatment process, the microorganisms that provide Nitrification require a living environment that is conducive to their well-being and protects them from wash-out during periods of high flow such as rain events. At the KIWWTP, Trickling Filters are used for this purpose. In two different types of filters – rock media and plastic media – the filter media is contained in large units that allow the wastewater to flow through the filter at a slower rate. The microorganisms create their own habitat on the filter media (rocks or plastic) and come into contact with the wastewater that is “trickling” through the filter.

*Stress Testing* – To learn more about the true capacity of the PMTFs and RMTFs, a stress test will be conducted. This process includes simulating the condition of higher-than-normal organic loadings to test the ability of the microorganisms in the Trickling Filters to convert ammonia to nitrate (Nitrification). Controlled Stress Testing requires a carefully designed operation to ensure Effluent Limits continue to be met during the test.

The core objective of this Nitrification Stress Testing Study is to determine the ability of the PMTF-RMTF process to meet effluent limits (primarily ammonia) at an upper threshold of organic loading. The combination of organic load and effluent quality requirements along with numerous process factors play a role in the performance capability and reliability of the PMTFs and RMTFs.

The RMTF is the original (circa 1920s) biological treatment system at the plant, which was effective until the growth of the region and increased loadings resulted in necessary capacity expansions in the 1970s. One of these expansion projects was the installation of the PMTF system, which increased the organic design capacity of the plant to its current permitted capacity of 70,000 lbs/day. Although the PMTF-RMTF combination at the KIWWTP has shown to be very effective, it is a unique biological treatment approach, and limited third-party research is available to support this analysis. While modeling has been previously performed to estimate capacity and performance, a computer model of this type of system is difficult to calibrate due to the fluctuations of incoming flows, loadings, and other operational conditions that change over time. Given this, and to meet the study’s objectives, physical stress testing of the PMTF-RMTF process to simulate future loading conditions coupled with model-based analysis is the most effective procedure to determine the actual organic capacity of the PMTF-RMTF system under a range of conditions.

The stress testing procedure will be developed by the engineering consultant in coordination with LCA so that plant operations can be maintained and permit requirements met. As such, the full details of the stress testing plan are not available at this time. However, it is known that stress testing will entail taking one or possibly two of the PMTFs offline to simulate higher loading

conditions on the remaining online PMTFs. It is further understood that this will most likely take place during the late fall / winter months of 2026 into 2027 when the seasonal ammonia effluent limit is relaxed to 15.0 mg/L (as opposed to the more restrictive summertime limit of 5.0 mg/L). Part of the stress testing plan will also be the procedure to bring the PMTFs back online so that full biological treatment capacity can be restored to continue to meet effluent permit requirements.

**FINANCIAL:**

To be funded by the LCA Allentown Division.

**THIS APPROVAL:**

Lehigh County Authority (LCA) intends to retain the services of AECOM to provide these services. These services include, but are not limited to, the following:

<b>Professional Services*</b>
• Task 1 – Project Management and Meetings
• Task 2 – Data Request and Review
• Task 3 – Full-Scale Stress Testing
• Task 4 – Model-based Assessment of Performance
• Task 5 – Monitoring Plan
• Task 6 – Recommendations

*\*Refer to AECOM Proposal dated March 27, 2026 for detailed work breakdown*

**CONSULTANT SELECTION PROCESS:**

AECOM has served LCA in various sewer planning efforts since the early 2010s. See below for a brief review of authorizations related to AECOM’s role as Act 537 Program Manager (since August 2019), and other ancillary or project specific authorizations on which AECOM has performed well, to date:

- Western Lehigh Interceptor Capacity Planning – Phase 1 Report (March 2020)
- DRBC Regulatory Assessment – LCA Direct Discharge to the Lehigh River (August 2020)
- Revenue Planning Tool Phase 1 Memo (November 2020)
- Act 537 Plan Report: Lehigh River PTP Direct Discharge Force Main (June 2021)
- BioActiflo Treatability Study (KIWWTP and PTP) (July 2021)
- Revenue Planning Tool, Phase 2, and User’s Manual (July 2021)
- CEPT Bench Study at PTP (September 2021)
- Act 537 Plan – AECOM Report 2021 (October 2021)
- BioActiflo Additional Study (January 2022)
- Act 537 Plan – Miscellaneous 2023 and 2024 Technical Memos
- KIWWTP Performance and Capacity Review (August 2024)
- LCA PTP 2.0 Summary Plan (October 2025)
- CEPT Optimization and Performance Demonstration at KIWWTP (ongoing)

A critical factor in selecting AECOM is their development of the robust GPS-X model of KIWWTP. This model was developed in 2023 and has been used throughout the course of some of the above noted projects to answer questions about loading conditions and performance response of both the liquid and solids stream processes at KIWWTP. This model will feature prominently in the successful execution of the nitrification stress testing study.

**SCHEDULE:**

With a notice to proceed in late April 2026, it is anticipated all work will be completed by the end of May 2027.

**FUTURE AUTHORIZATIONS:**

To be determined.



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 www.lehighcountyauthority.org

## REQUEST FOR BOARD AUTHORIZATION

Board of Directors Meeting Date: April 27, 2026  
 Staff Member Requesting Authorization: Stephen Boone  
 Department: Engineering & Asset Management  
 Short Description / Title of Project / Purchase: KIWWTP Nitrification Stress Testing Study  
 Project Number (if applicable): 50659

**Capital Expense:** (check all that apply)

- Capital Project >\$250,000
  - Construction / Other Contract(s)
  - Professional Services Authorization
  - Initial Authorization
  - Amended Authorization
- Professional Services Authorization >\$100,000
- Equipment Purchase >\$250,000
- Upsizing / Extension >\$250,000
- Aggregate Change Order >10% of contract and >\$100,000
- Stand-Alone Change Order >\$50,000

**Operations Expense:**

- Construction / Other Contract >\$250,000
- Professional Services Authorization >\$100,000
- Equipment / Other Individual Item >\$250,000
- Emergency Authorization >\$50,000
- Aggregate Change Order >10% of contract and >\$100,000
- Stand-Alone Change Order >\$50,000

**LCA Enterprise Fund:**     Allentown Division     Suburban Water     Suburban Wastewater     Internal Service / Admin

**Current Project Phase:**     N/A (skip to Description)     Planning     Conceptual Design     Design / Bid     Construction

**Prior Authorization(s):**

Date	Phase	Description	Amount Authorized
			\$
			\$
			\$
<b>Total Prior Authorizations:</b>			<b>\$</b>

**Current Authorization Requested:**

Description	Amount Requested	
Professional Services Authorization: AECOM – KIWWTP Nitrification Stress Testing Study	\$178,290	
Staff & Contingency	\$50,000	
	\$	
	\$	
	\$	
	\$	
<b>Total Amount Requested (this authorization):</b>		<b>\$228,290</b>

**Future Authorizations:**

Phase	Note / Description	Estimated Cost
	TBD	\$
		\$
<b>Estimated Total Project Cost:</b>		<b>\$</b>

**Short Description:** (please attach supporting documentation, cost justification, trade-in values, proposals, memos, etc.)

The core objective of this nitrification stress testing study is to determine the ability of the Plastic Mediate Trickling Filter (PMTF)-Rock Media Trickling Filter (RMTF) process to meet effluent (primarily ammonia) requirements at an upper threshold of organic loading. To meet this objective, physical stress testing of the PMTF-RMTF process to simulate future loading conditions coupled with model-based analysis with the model calibrated to the stress testing data will be performed. See proposal from AECOM for project details.

**Purchasing Procedure:**     Formal Bid     Request for Proposal     Cooperative Purchasing Group / CoStars     N/A - Emergency

**Motion:** \_\_\_\_\_ **Second:** \_\_\_\_\_ **Approved?** \_\_\_\_\_ **Certified by:** \_\_\_\_\_

March 27, 2026

Mr. Albert J. Capuzzi, P.E., DBIA  
Director of Engineering & Asset Management  
Lehigh County Authority  
1053 Spruce Street  
Allentown, PA 18106-0348

**RE: Engineering Services – Nitrification Stress Testing at KIWWTP**

Dear Mr. Capuzzi,

AECOM Technical Services, Inc. (AECOM) appreciates the opportunity to provide this proposal to Lehigh County Authority (the “Authority”, or “LCA”) for technical services in support of nitrification stress testing at the Kline’s Island Wastewater Treatment Plant (KIWWTP). Increases in organic loading including potential “load shifts” from the Pretreatment Plant (PTP) along with potential changes in effluent permit limits are two extremely important near-term planning considerations for LCA. The combination of organic load, effluent quality requirements along with numerous process factors play a role in the performance capability and reliability of the plastic media (PMTF) and rock media trickling filters (RMTF). The PMTF-RMTF combination at KIWWTP is an extremely unique biological treatment approach, perhaps the only such installation in existence, and has shown to be very effective. While modeling has been performed to estimate capacity and performance, biofilm-based systems like the PMTF-RMTF are inherently difficult to calibrate due to spatial and temporal dynamics and access to such data that allows tuning of the model’s parameters. Confident understanding of the nitrification performance capabilities with the PMTF-RMTF process including scenarios under high influent organic load is a critical high-value need for LCA planning. This proposal presents the scope of work, project team, schedule, demonstration budgeting, and support services fee for AECOM to support LCA in developing and implementing the nitrification stress testing study at KIWWTP. The over-arching objective of the stress testing study is developing confidence and documenting the ability of the PMTF-RMTF process to meet effluent objectives at an upper threshold of organic load and offer recommendations on process optimization and if applicable capital planning.

## **1.0 Understanding**

Recent model-based capacity analyses summarized in the memorandum entitled *KIWWTP Performance and Capacity Review* (AECOM, submitted April 5, 2024) estimate that under governing spring season conditions, the KIWWTP could handle up to 56,000 lb-BOD/d organic load on a monthly average basis and still meet seasonal effluent ammonia permit limits. Currently, the organic load to the KIWWTP is within that loading condition at 48,000 lb-BOD/d. However, the 2024 Master Plan (Black & Veatch,

submitted May 30, 2025) forecasts influent organic loads to increase up to 68,900 lb-BOD/d. This increase accounts for annual service area growth (0.8%) plus an additional 10,000 lb-BOD/d allowance resulting from shifting loads from the LCA Pretreatment Plant. However, depending on what eventually transpires at the PTP, the magnitude of the organic load increase due to PTP-related shifts could be much higher and occur abruptly in the near horizon. In evaluating strategies to protect nitrification performance at higher influent loads, LCA commissioned a study, *CEPT Optimization and Performance Demonstration*, (AECOM, ongoing) to investigate chemically enhanced primary treatment (CEPT) with minor modifications to the primary clarifiers to re-direct more of the incoming organic load away from the PMTF-RMTF process. So far, the demonstration is showing that CEPT results in a measured increase in TSS and particulate COD removal across primary treatment.

In October 2025, LCA took one of the PMTFs out of service to replace the media. This unit is still out of service as refurbishment activities continue. During this period, monthly averages of NH<sub>3</sub> at the plant effluent went up from 1.4 mg N/L in September 2025 to 3.1 mg N/L in October. Monthly average effluent NH<sub>3</sub> concentration continued trending up with 4.2 mg N/L and 5.4 mg N/L in November and December 2025, respectively. Plant effluent ammonia levels for January 2026 were 4.0 mg N/L. This has been attributed to one PMTF tank being offline as well as cold weather leading to reduction in microbial activity. A controlled study is required to fully understand the nitrification performance at higher unit organic loading conditions capacity at KIWWTP.

Depending on timing, spring 2026 may offer the first window to conduct stress testing activities, as the PMTF #4 tank is expected to come back online in April of 2026 and will take some time to acclimate. Each of the remaining three PMTF tanks are expected to be taken offline with similar schedules on a rotating annual basis (after a gap year to evaluate performance in PMTF #4), starting in October of 2027 and extending through October 2030. More broadly the proposed scope of work and schedule will need to be coordinated around LCA's plans for trickling filter refurbishment.

The following scope has been developed to support LCA in testing the nitrification capacity at full-scale at the KIWWTP and quantifying performance for future facility planning.

## **2.0 Proposed Scope of Work**

The proposed scope of work described below will help LCA develop a full-scale understanding of nitrification capacity at KIWWTP against increasing influent organic load. Our proposed scope of work for technical services support to LCA is organized within the following six tasks:

Task 1 - Project management and meetings

Task 2 - Data request and review

Task 3 - Full-scale stress testing

Task 4 - Model-based assessment of performance

Task 5 - Monitoring plan

## Task 6 - Recommendations

### Task 1 - Project management

The elements of this work item include:

- Prepare for and attend a project kick-off meeting to discuss the project scope, goals, overall schedule, and lines of communication. Site walk of PMTF-RMTF process.
- Conduct six (6) Teams progress meeting calls to review current project status and schedule, discuss progress to date, and identify action items and the path forward.
- Attend a maximum of three (3) site meetings during testing to review testing protocols and progress and coordinate ongoing efforts with plant operations.

Deliverables for this task will include:

1. Kickoff meeting and notes.
2. Progress meetings for the duration of the project. Power point slides will be distributed after each respective meeting.
3. Monthly invoices, and project progress report.

### Task 2 - Data request and review

The elements of this anticipated work item include:

- Review current and draft effluent permit limits.
- Prepare a data request. The data request may include information on previous test work, available wastewater characterization, drawings, and other information needed to support the project.
- Review and analyze data, identifying gaps that may need to be addressed during testing.
- Literature review on nitrification performance and optimization in trickling filters.

Deliverables for this task will include:

1. Data request.
2. Summary of findings presented during the progress meetings.
3. Literature review summary.

### Task 3 – Full-scale stress testing

In coordination with LCA and KIWWTP, the AECOM team will co-develop a full-scale stress testing plan, that works within the practical constraints of facility daily operation and effluent compliance needs. The goal of stress-testing the PMTF-RWTF system during the study is developing confidence and

documenting the ability of the PMTF-RMTF process to meet effluent objectives at an upper threshold of influent organic load. In addition, the stress testing plan will offer operational guidance on (a) optimization recirculation, flushing, and wetting rates for the PMTFs and RMTFs, (b) clarifier operation, and (c) dewatering filtrate management. It is our understanding that as part of planned maintenance and refurbishment activities, there will be periods whereby one of the PMTFs will be out of service. The stress testing plan will be coordinated around the timeline of these activities. The plan will include monitoring and documentation of the startup of a PMTF as it is placed back into service.

The elements of this anticipated work and deliverables will include:

- A process assessment with KIWWTP O&M staff to review the operation and capacity of primary clarifier effluent pumps, plastic media trickling filters, intermediate sedimentation tanks, rock media trickling filters, and final sedimentation tanks, and establish operating parameters, monitoring parameters, and operating boundaries for each system during the study.
- Preparation of a full-scale stress testing plan and revisions as necessary to keep the plan current relative to field activities.
- Coordination with KIWWTP staff relative to O&M activities that pertain to the PMTF-RMTF process.
- Coordination with CEPT demonstration activities (as applicable) and PTP activities (as applicable).

#### **Task 4 – Model-based assessment of performance**

Through stress testing it will be possible to bring the loading to the PMTF-RMTF process to an influent organic load equivalent of around 64,000 lb-BOD/d by taking units out of service in the fall after the ammonia limits season has passed. Data collected via the monitoring plan (Task 5) will allow model-based assessment of nitrification performance with some insights on the extrapolation of performance under still higher organic loading.

The elements of this anticipated work item include:

- Calibrate existing KIWWTP model (GPS-X).
- Conduct GPS-X modeling analysis with newly calibrated model to extrapolate performance at higher loadings.
- Assess relative changes revealed through GPS-X model using primary effluent characterization with and without CEPT.
- Develop combined carbonaceous oxidation and nitrification oxidation volumetric oxidation rate (VOR) model (Daigger, 1994).
- Conduct sensitivity analysis with VOR model.

Deliverables for this task will include:

1. Power point deck and summary memo of model setup, calibration, analyses and findings.
2. Copy of prepared model files.

## Task 5 – Monitoring

A proposed draft monitoring plan is provided as Attachment A (previously shared with LCA). In this proposed scope, AECOM will work with LCA staff to refine the monitoring plan to maximize focus on data that is most meaningful and phase out monitoring activities (sampling, analysis, trending) on data that becomes less critical to the objective of this study. The proposed monitoring plan includes placement of two in-situ analyzers purchased/rented by LCA to maximize the benefit of the diurnal performance profile of the PMTF-RMTF process.

The elements of this anticipated work item include:

- Coordinate with LCA on the selection and placement of in-situ analyzers.
- Coordination and technical support on data integration from new in-situ analyzers.
- Review and refine draft monitoring plan.
- Trend monitoring data and highlight important observations.

Deliverables for this task will include:

1. Refined monitoring plan.
2. Power point deck and summary memo of monitoring trends.

Anammox - Anaerobic ammonium oxidizing bacteria, or anammox bacteria, are a group of slow-growing microorganisms that offer low-cost reduction of ammonia by consuming nitrite to oxidize ammonia as opposed to oxygen. Long retention times and low carbonaceous organic loading conditions in the RMTFs provide sound conditions for anammox growth. Anammox-based nitrogen removal may offer additional capacity to remove organic load in the trickling filter system as well as possibly optimize nitrogen removal performance. Within this study, the goal will be to test for the presence of anammox clades within the RMTF profile. If clades are present, AECOM will offer potential additional tasks LCA may want to consider under a future task for further evaluation.

The elements of this anticipated work include:

- Prepare a sampling plan. The sampling plan will include the number and location of samples.
- The collected samples will be analyzed by a third-party lab to determine anammox growth and activity.

Deliverables from this task will include:

1. RMTF Sampling Plan.
2. Laboratory results.

## Task 6 – Recommendations

Through the combination of stress testing (Task 3), model-based assessment (Task 4), and monitoring (Task 5), there will be notable findings that support the over-arching objective of the study - develop confidence and document the ability of the PMTF-RMTF process to meet effluent objectives at an upper threshold of organic load. AECOM will offer recommendations on process optimization of the PMTF-RMTF process.

Deliverables from this task will include:

- Develop one draft and one final executive summary of the nitrification stress study.

### 3.0 Proposed Project Team

The proposed staffing approach for completing the above scope of work is as follows:

Team Member	Project Role
Matt Warfel, PE	Project Manager
Rachel Hanson	Project Technical Lead
Manav Baid	Project Engineer
Jim McQuarrie, PE	Senior Technical Advisor
Kevin Frank, PE	Process Modeling
Chris Curran, PE	Project Director

### 4.0 Proposed Project Schedule

The schedule duration for this study is expected to be around 12 to 18 months. The stress testing plan (Task 3) will govern the cadence and duration of the study. Task 3 plan will include development of an overall schedule for the study.

### 5.0 Project Fee

A proposed budget to complete the anticipated scope of services is indicated below:

Item	Estimated Hours	ODCs	Labor Budget	Estimated Budget
<b>Task 1 – Project Management and Meetings</b>	161	\$710.00	\$33,690.00	\$34,400.00
<b>Task 2 – Data Request and Review</b>	105	-	\$18,165.00	\$18,165.00
<b>Task 3 – Full-scale stress testing</b>	181	-	\$32,345.00	\$32,345.00
<b>Task 4 – Model-based assessment</b>	264	-	\$48,000.00	\$48,000.00
<b>Task 5 – Monitoring</b>	138	\$4,950.00	\$24,330.00	\$29,280.00
<b>Task 6 – Recommendations</b>	88	-	\$16,100.00	\$16,100.00
<b>Total</b>	<b>937</b>	<b>\$5,660.00</b>	<b>\$172,630.00</b>	<b>\$178,290.00</b>

AECOM proposes to conduct this project on a Time and Materials basis with a not-to-exceed value of \$178,290 in accordance with the Master Services Agreement for Professional Services between Lehigh

County Authority and AECOM Technical Services, dated April 24, 2023 including subsequent Amendments.

## 6.0 Basis of Cost

The following provides the basis of costs for the proposed scope of work:

1. Local travel will be based on mileage from AECOM's representative Team member's Office to LCA's offices or facilities.
2. LCA will perform sampling and laboratory analyses.
3. LCA will procure and install in-situ analyzers.
4. AECOM assumes six (6) one-hour progress meetings over the course of the project.
7. For stress testing under Task 3, we anticipate up to 3 sub-scenarios.
8. The executive summary of findings will not include conceptual or detailed designs of any potential suggested improvements or development of opinions of probable construction costs as these efforts would be performed under separate authorization if desired by LCA.
9. Process modeling efforts (updates, calibration and evaluation) will build upon the already existing AECOM KIWWTP model and is limited to processes with direct impact on nitrification performance.
5. Budget can transfer between tasks.
10. Virtual meetings will be used in lieu of in-person meetings whenever feasible.
11. This cost proposal is valid through 60 days.

Once again, we appreciate the opportunity to provide this proposal to you and look forward to assisting the Authority with this important project. Please reply that we are authorized to proceed in accordance with this proposal for our records. If you have any questions or need additional information, please contact me at 302-379-0267 or [chris.curran@aecom.com](mailto:chris.curran@aecom.com).

Sincerely,



Christopher Curran, PE

VP, Project Director

Cc: Mr. Stephen Boone, PE and Mr. Andrew Moore

## Attachment A: LCA KIWWTP Sampling and Analysis Plan

LCA plans to collect supplemental analytical data to baseline ahead of the nitrification stress testing program. AECOM has prepared a draft plan (see below) to assist KIWWTP staff with sampling and analysis required for the same. If the testing schedule indicates analytical sampling that is not currently performed by LCA, please let AECOM know and we can adjust the analytical plan accordingly.

Given the significance of the findings that will be derived from the nitrification study, our team thinks there is high value in continuous ammonia and nitrate monitoring. For ammonia, online, wet chemistry analyzers provide reliable and accurate data. Similarly, probes are recommended for continuous nitrate data collection. Of the two, continuous ammonia monitoring at IST and FST provides the most value. The facility monitors ammonia at the following locations using optical sensors:

- Plant Influent (Hach)
- PMTF Effluent (Hach)
- Solids Handling Area (Hach)
- Plant Effluent (YSI, also monitors nitrate).

### LCA KIWWTP Nitrification Stress Testing Analytical Test Plan

Analytes	Weekly Totals	Monday						Tuesday						Wednesday						Thursday						Friday					
		Primary Effluent	PMTF Effluent	IST Effluent	RMTF Effluent	FST Effluent	Dewatering Filtrate	Primary Effluent	PMTF Effluent	IST Effluent	RMTF Effluent	FST Effluent	Dewatering Filtrate	Primary Effluent	PMTF Effluent	IST Effluent	RMTF Effluent	FST Effluent	Dewatering Filtrate	Primary Effluent	PMTF Effluent	IST Effluent	RMTF Effluent	FST Effluent	Dewatering Filtrate	Primary Effluent	PMTF Effluent	IST Effluent	RMTF Effluent	FST Effluent	Dewatering Filtrate
Total suspended solids	15	X		X		X		X		X		X		X		X		X		X		X		X		X		X		X	
Ammonia*	20	X		X		X	X	X		X		X	X	X		X		X	X	X		X		X	X	X		X		X	X
Nitrate*	10			X		X				X		X				X		X				X		X				X		X	
Biochemical oxygen demand	10	X				X		X				X		X				X		X				X		X				X	
Total chemical oxygen demand (COD)	3																			X		X		X							
Filtered COD	3																			X		X		X							
Floc-filtered COD	3																			X		X		X							
Alkalinity, Total	3																			X		X		X							
pH	15	X		X		X		X		X		X		X		X		X		X		X		X		X		X		X	
Temperature	15	X		X		X		X		X		X		X		X		X		X		X		X		X		X		X	
DO	2																				X		X								
Pumped Flow	5	X						X						X						X						X					
Recycle Flow	15			X		X	X			X		X	X			X		X	X			X		X	X			X		X	X

Notes:

Blue shading indicates analyses that are **not** already performed regularly by LCA as part of plant monitoring

\*Online analyzers are recommended for ammonia and nitrate at IST and FST for continuous data collection

Lab staff can select day of the week for parameters tested on a weekly basis

Additional Operating Information						
	Primary Clarifier	PMTF	IST	RMTF	FST	Dewatering Filtrate
Hours of operation (daily)						X
Number of units online	X	X	X	X	X	

Notes:

Please indicate changes as and when units are taken offline/brought back online



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## MEMORANDUM

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TO: Kline's Island Sewer System (KISS) Municipal Managers  
FROM: Liesel Gross, CEO  
DATE: April 13, 2024  
RE: DEP Approval of KISS Act 537 Plan & Next Steps

### Introduction

---

After nearly six years of deep collaboration, 15 municipalities in Lehigh County achieved a substantial and ambitious goal of submitting a joint Act 537 Plan (Plan) to the Pa. Department of Environmental Protection (DEP) in October 2025. This achievement was made possible through the dedication of each municipality and municipal authority who participated in the process, offered honest feedback about the goals of the program, and took a “leap of faith” with Lehigh County Authority (LCA) to attempt a new way of working together.

While the changes outlined in the resulting Plan may be viewed by some as incremental in nature, they represent significant commitments and compromise on the part of all parties to develop solutions for our large regional sewer system. The KISS is aging and growing at the same time. We are also facing new regulatory requirements for proper sewage treatment and system maintenance. The programs outlined in the Plan will help us meet the needs of the system in the years ahead, and lays out future opportunities to continue this necessary work.

The commitments we've developed together for inclusion in the Plan include: sewer system upgrades to reduce inflow and infiltration; updated sewer metering methodologies; negotiation of potential new intermunicipal agreements; flow monitoring and flow characterization studies to monitor system performance and plan future projects; completion of pump upgrades at the Kline's Island Wastewater Treatment Plant (KIWWTP) to support improved management of peak flows; and continued management of new connections and reporting to DEP under a Connection Management Plan.

On April 3, 2026, DEP responded to the KISS Plan with an approval letter that is attached to this memo for reference. Viewed holistically, DEP's approval letter communicates strong support for our efforts and recognition of the major steps forward we have taken together to develop this regional Plan. LCA is very grateful to all KISS municipalities and municipal authorities for the hard work you have put in to achieve this positive result.

### Next Steps

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As the KISS municipalities are aware, the Plan approval by DEP is just the first step. As outlined above (and in more detail in plan, posted online here: [www.lehighcountysewer.org](http://www.lehighcountysewer.org)), we have much more work to do to implement the commitments outlined in the Plan. This memo outlines the initial approaches we will take to move forward, as discussed at our recent KISS

meeting on April 9, 2026. Please review these next steps and feel free to provide any feedback you may have to LCA for consideration.

1. **Prepare & Submit New Water Quality Management (WQM) Part 2 Permit** – In line with the DEP approval letter, a WQM Part 2 permit application will be prepared for submission to DEP to increase the Kline’s Island Wastewater Treatment Plant hydraulic capacity to 48.4 million gallons per day (MGD). As discussed previously, this “hydraulic re-rate” provides cushion for wet-weather flows, but does not change the plant’s dry-day capacity of 40 MGD, which must continue to be met on an annual average-day basis.
2. **Sewage Billing Meter Program Subcommittee** – LCA’s Deputy Director of Planning, Phil DePoe, will be facilitating a KISS subcommittee focused on developing the details of the sewage billing meter program outlined in the Plan. If you have already signed up to participate in this subcommittee, Phil will reach out to you directly to organize a kick-off discussion. If you are interested in participating but haven’t previously signed up, please let LCA know.
3. **Inflow & Infiltration (I&I) Program Subcommittee** – LCA’s Senior Planning Engineer, Charley Myers, will be facilitating a KISS subcommittee focused on supporting the municipalities’ I&I programs outlined in the Plan. In addition, the subcommittee will review options for regional approaches to I&I program implementation and develop methods to monitor the effectiveness of the program. If you have already signed up to participate in this subcommittee, Charley will reach out to you directly to organize a kick-off discussion. If you are interested in participating but haven’t previously signed up, please let LCA know.
4. **Intermunicipal Agreements (IMAs)** – Salzmann Hughes has been retained to restart the process of reviewing existing KISS IMAs and developing a strategy to negotiate potential new IMAs in accordance with our Plan commitment to do so. We will start the process by using the Sewer Intermunicipal Agreement Term Sheet included as Appendix 13 of the Plan. Please be assured that each KISS municipality and municipal authority will be afforded ample opportunity to participate in the process of preparing the new IMAs that are acceptable to all parties. LCA has been clear in stating our position that new IMAs are necessary – the existing IMAs do not address the changes that have occurred within the KISS and associated regulatory framework over the past several decades. They also add significant complexity and uncertainty to the financial structures used to manage the new projects we face in the years ahead. Developing new ways to work together will require open communication, transparency, and compromise. LCA is committed to working with all KISS municipalities to achieve the commitments outlined in our shared Act 537 Plan.

5. **Regional High-Strength Surcharge Program** – LCA’s Director of Plant Operations, Andrew Moore, will be facilitating a KISS subcommittee focused on exploring the development of a regional high-strength surcharge program. This program would be developed in parallel with the Intermunicipal Agreements described above, and will also need to be coordinated with the potential changes in how industrial pretreatment services are provided within the Western Lehigh Interceptor group. Therefore, the kick-off of this subcommittee will be delayed until more definition of program parameters is available. If you have already signed up to participate in this subcommittee, Andrew will reach out to you directly to organize a kick-off discussion when we are ready to do so. If you are interested in participating but haven’t previously signed up, please let LCA know.
  
6. **KISS Meetings & KIWWTP Project Tours** – Due to the detailed work to be completed by the KISS subcommittees noted above, the frequency of full meetings with all KISS municipalities and municipal authorities will be reduced to quarterly meetings. This will allow the subcommittees to complete work and report progress to the full KISS group. Our next regularly scheduled KISS meeting will be held on July 9, 2026, with details to be distributed by Phil DePoe.

In the meantime, LCA is implementing several major projects to upgrade the KIWWTP as outlined in the Plan. A series of plant tours for KISS managers, engineers and elected officials will be scheduled for May 2026 to offer an inside look at this 98-year-old facility and the projects needed to ensure long-term sewage treatment needs of our region are met. When these tours are scheduled, please encourage participation by any members of your organization who may find value in this opportunity.

7. **Connection Management Plan (CMP)** – In DEP’s approval letter of the KISS Act 537 Plan, a pathway to allowing new connections to the system was outlined. Simply put, DEP’s letter provides assurance that all new connections the KISS region has requested in the Plan can be approved as long as we complete the work we’ve outlined for ourselves in the Plan. This is good news and an illustration of DEP’s support for the level of collaboration we’ve achieved through this planning process.

As all KISS municipalities are aware, the existing CMP is broken down into separate amounts of allocation for new connections allowed in each municipality. In DEP’s approval letter, the release of additional allocation is provided to the KISS as a whole. An additional 1,000,000 gallons per day (gpd) of allocation for new connections was provided by DEP upon delivery of their approval letter on April 3, 2026. The additional 2,800,000 gpd of allocation requested in the KISS Plan will be added to the CMP upon submission of reports to DEP describing the KISS group’s implementation of various programs outlined in our Plan. Please see the attached DEP approval letter for details of those reporting requirements. In the way DEP has planned its timely releases of

**Lehigh County Authority**  
**Memo to KISS – DEP Approval of Act 537 Plan & Next Steps**  
**April 13, 2026**  
**Page 4**

additional allocation into the KISS CMP, the full 3,800,000 gpd of allocation for new connections included in the KISS Plan will be available for the municipalities’ use.

Moving forward, LCA will develop an updated system to administer the CMP based on a combination of using the remaining allocations within the 2020-2025 CMP by municipality, and adding the new allocation approved by DEP to the full KISS region. Allocations approved by DEP under the terms of the 2020-2025 CMP will be utilized first for new sewage planning modules submitted. However, reporting to DEP will be based on the total amount of remaining allocation approved under the CMP. The table below illustrates the impact of the new allocation approved by DEP, as of the date of this memo.

<b><u>KISS Municipality</u></b>	<b><u>2020-2025 CMP Balance (gpd)</u></b>
Borough of Alburtis	2,230
City of Allentown	688,193
Coplay-Whitehall Sewer Authority*	145,984
Borough of Emmaus	57,345
Hanover Township	28,673
Lehigh County Authority	151,640
Lower Macungie Township	348,832
Lowhill Township	2,230
Borough of Macungie	20,166
Salisbury Township	36,783
South Whitehall Township	339,373
Upper Macungie Township	155,157
Upper Milford Township	28,321
Weisenberg Township	2,230
Previously Approved DEP “Adder”	1,132
<b>2020-2025 CMP Allocation Remaining</b>	<b>2,008,289</b>
NEW KISS Allocation (DEP Approval 4/3/2026)	1,000,000
<b>TOTAL CMP Allocation (as of 4/13/2026)</b>	<b>3,008,289</b>

*\* Coplay-Whitehall Sewer Authority’s CMP Allocation includes allocation available for Whitehall and North Whitehall Township and the Borough of Coplay.*

Important Note: While DEP has offered the KISS municipalities an avenue for new connections to the sewer system where growth is occurring, the CMP values noted above do not reflect any change in the existing terms of IMAs currently in force. Until and unless the IMAs are modified, all KISS municipalities are subject to the flow and loading limitations included in the current IMAs with penalty and enforcement rights retained by the City of Allentown. The process to evaluate and potentially renegotiate the IMAs is a key commitment in the KISS Plan, as described above.

**Concluding Remarks**

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This memo has been prepared to formalize plans to move forward with the required near-term implementation steps outlined in the KISS Plan. We have discussed all of these items in prior meetings of the KISS group of municipalities. LCA truly appreciates the continued collaboration and teamwork you have offered to date, and which will be required moving forward for a successful implementation of the Plan. LCA is committed to serving the needs of all KISS municipalities and welcome your feedback along the way to ensure we continue to have great communication, collaboration, and success. Thank you!



Pennsylvania  
Department of  
Environmental Protection

April 3, 2026

**VIA ELECTRONIC MAIL**

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Re: Approval Letter – Official Plan  
Act 537 Planning  
Kline’s Island Sewer System Regional Act 537 Plan  
APS ID # 1159735, AUTH ID # 1564684  
Borough of Alburtis, City of Allentown, Borough of Coplay, Borough of Emmaus,  
Hanover Township, Lower Macungie Township, Lowhill Township, Borough of  
Macungie, North Whitehall Township, Salisbury Township, South Whitehall Township,  
Upper Macungie Township, Upper Milford Township, Weisenberg Township, Whitehall  
Township, Lehigh County

All:

The Department of Environmental Protection (DEP) has reviewed the proposed Official Plan dated April 16, 2025 (received by the Department on October 7, 2025) with additional information dated March 24, 2026 (received by the Department on March 25, 2026) and April 1, 2026 (received by the Department on April 1, 2026) prepared by ARRO Consulting, Inc. and entitled Kline's Island Sewer System Regional Act 537 Plan. The submission is consistent with the planning requirements in Chapter 71 of DEP's regulations.

The Plan's selected alternatives provide for the continuation of the implementation of the Source Reduction Plans (SRPs) by the 15 signatory municipalities, the implementation of a sewage billing meter (SBM) program, and a flow characterization study to re-model the Kline's Island Sewer System (KISS). The implementation of these actions will facilitate the eventual elimination of the Chapter 94 hydraulic overload at the Kline's Island Wastewater Treatment Plant (KIWWTP) and the Connection Management Program (CMP) that is currently being implemented for KISS. All of the commitments embodied in this Plan are summarized on page 2 of the Executive Summary. The Plan also proposes a re-rate of the KIWWTP hydraulic capacity from 44.6 MGD to 48.4 MGD.

The Plan requested an additional 3.8 MGD of additional sewer connection allocation. This allocation is in addition to the 2.6 MGD remaining (as of the date of this Plan) from that originally issued by the Department on June 25, 2021 for use within the KIWWTP's sewer service area. This allocation is administered and disbursed by the Lehigh County Authority (Authority) for sewage planning (under the Pennsylvania Sewage Facilities Act – Act 537) and municipal wasteload management purposes in all municipalities' and authorities' sewer service areas whose wastewater collection and conveyance systems are tributary to the KIWWTP.

The Department hereby grants an additional sewer connection allocation as listed in the table below.

<u>Plan Implementation Milestone</u>	<u>Additional Flow Granted</u>
Upon Plan Approval	1.0 MGD
Submission of Municipal SRP Update Reports	2.0 MGD
Completion of SBM Implementation	0.8 MGD

In accordance with Section 94.21.b of the Department's Regulations, this allocation modifies the sewer connection in place within the entire KIWWTP service area but does not lift it. All sewer connection requests from individuals or other entities must be made, in writing, to the Authority. Subsequently, all allocation awards to individuals or other entities, from the Authority, must be made in writing by an authorized Authority official(s).

To properly track the additional 3.8 MGD sewer collection allocation, the Department is enclosing a Quarterly Status Report of Sewage Allocation Form (Report). This Report must be completed by the Authority and submitted to the Department's Northeast Regional Office within 14 calendar days after the end of each calendar year quarter. All connections/gallonage granted

from this and any future sewer connection allocation(s) must be reported to the Department on this Report form. A Report must be submitted, to the Department, even if no allocation is granted by the Authority during a particular calendar year quarter.

Failure to provide the Department with accurate and timely Quarterly Reports, proper wastewater planning documents for Official Sewage Facilities Plan Revisions (a municipal responsibility as required by the Pennsylvania Sewage Facilities Act – Act 537 and the Department’s Regulations), when appropriate, for land development or failure to comply with the activities outlined in the Plan may result in revocation of part or all of the sewer connection allocation.

Additional planning may be necessary for the future development and infrastructure projects included in this Plan. A copy of the Authority’s letter granting any entity a sewer connection from the Authority’s sewer connection allocation must accompany any wastewater planning documents submitted to the tributary municipalities or the Department for review. The respective collection system owner and municipality in which the affected property is located shall also receive a copy of all allocations /gallorage granted, via written correspondence, from the Authority.

The plan is approved with the following comments:

#### **PROJECT SPECIFIC COMMENTS**

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1. The re-rate of the KIWWTP’s hydraulic design capacity from 44.6 MGD to 48.4 MGD will require a Water Quality Management (Part II) Permit. The permit application must be submitted in the name of the municipality or authority, as appropriate. Issuance of a Part II permit will be based upon a technical evaluation of the permit application and supporting documentation. Starting construction prior to obtaining a Part II permit is a violation of the Pennsylvania Clean Streams Law (CSL).
2. The Department encourages continued regional discussions for collaborative, system-wide based solutions.
3. The Department is requiring the submission of an update report on the progress of the municipal implementation of the SRPs included in this Plan. These reports should be submitted to the Department electronically 18 months after Plan approval on October 4<sup>th</sup>, 2027.

Any person aggrieved by this action may appeal the action to the Environmental Hearing Board (Board), pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. § 7514, and the Administrative Agency Law, 2 Pa.C.S. Chapter 5A. The Board's address is:

Environmental Hearing Board  
Rachel Carson State Office Building, Second Floor  
400 Market Street  
P.O. Box 8457  
Harrisburg, PA 17105-8457

TDD users may contact the Environmental Hearing Board through the Pennsylvania Relay Service, 800-654-5984.

Appeals must be filed with the Board within 30 days of receipt of notice of this action unless the appropriate statute provides a different time. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

A Notice of Appeal form and the Board's rules of practice and procedure may be obtained online at <http://ehb.courtapps.com> or by contacting the Secretary to the Board at 717-787-3483. The Notice of Appeal form and the Board's rules are also available in braille and on audiotape from the Secretary to the Board.

IMPORTANT LEGAL RIGHTS ARE AT STAKE. YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD AT 717-787-3483 FOR MORE INFORMATION. YOU DO NOT NEED A LAWYER TO FILE A NOTICE OF APPEAL WITH THE BOARD.

**IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST BE FILED WITH AND RECEIVED BY THE BOARD WITHIN 30 DAYS OF RECEIPT OF NOTICE OF THIS ACTION.**

If you have any questions or concerns, please contact Staci Shoemaker, of my staff, at 570.826.2333 and refer to Application No. 1159735 and Authorization No. 1564684.

Sincerely,



Amy Bellanca P.E.

Program Manager

Clean Water Program











































Enclosure: Quarterly Status Report for Sewage Allocation Form

cc: Michael Schober, P.E., Senior Vice President/ARRO Consulting, Inc. (w/Enclosure)  
Mark Shahda, Director of Public Works/City of Allentown (w/Enclosure)  
Laura Altomare, Business Manager/Coplay Whitehall Sewer Authority (w/Enclosure)  
Stephen Nemeth, Secretary/Alburtis Borough Planning Commission (w/Enclosure)  
Anthony Toth, Secretary/City of Allentown Planning Commission (w/Enclosure)  
Tiffany Benson, Secretary/Coplay Borough Planning Commission (w/Enclosure)  
Shane Pepe, Secretary/Emmaus Borough Planning Commission (w/Enclosure)  
Jean Rossi, Secretary/Hanover Township Planning Commission (w/Enclosure)  
Jessica Rosenbrook, Secretary/Lower Macungie Township Planning Commission  
(w/Enclosure)  
Susan McGorry, Secretary/Lowhill Township Planning Commission (w/Enclosure)  
Allen Crawford, Chairperson/Macungie Borough Planning Commission (w/Enclosure)  
Kathy Crawford, Secretary/North Whitehall Township Planning Commission  
(w/Enclosure)  
Frank Frankenfield, Secretary/Salisbury Township Planning Commission (w/Enclosure)  
Timothy Dugan, Secretary/South Whitehall Township Planning Commission  
(w/Enclosure)  
Christopher Walls, Secretary/Upper Macungie Township Planning Commission  
(w/Enclosure)  
Ellen Larmer, Secretary/Upper Milford Township Planning Commission (w/Enclosure)  
Michael Levitsky, Secretary/Weisenberg Township Planning Commission (w/Enclosure)  
Paul Geissinger, Secretary/Whitehall Township Planning Commission (w/Enclosure)  
Becky Bradley, AICP, Executive Director/Lehigh Valley Planning Commission  
(w/Enclosure)  
Corrine Ruggiero, Environmental Planner/Lehigh Valley Planning Commission  
(w/Enclosure)



**LEHIGH COUNTY AUTHORITY  
FINANCIAL STATEMENTS  
MARCH 2026**

**LEHIGH COUNTY AUTHORITY  
YTD SUMMARY SCORESHEET  
MARCH 2026**

	<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 >= Budget Target			
YTD Operating Ratio >= 1.00			
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>14</u></u>	<u><u>11</u></u>	<u><u>12</u></u>

LEHIGH COUNTY AUTHORITY  
 FINANCIAL STATEMENTS - SUMMARY  
 For the Period Ended March 31, 2026 (as of 04-9-26)

	Consolidated Financial Statements														
	Month					Year To Date					FULL YEAR				
	Actual	Q1 FC	Prior Year	FC Var	PY Var	Actual	Q1 FC	Prior Year	FC Var	PY Var	Q1 FC	Budget	Prior Year	Bud Var	PY Var
<b>Income Statement</b>															
Suburban Water	270,246	73,410	200,133	196,836	70,113	1,182,641	669,373	635,946	513,268	546,695	2,347,736	2,347,736	3,022,033	-	(674,297)
Suburban Wastewater	184,020	(671,346)	(41,598)	855,366	225,618	(232,218)	(675,929)	(573,527)	443,711	341,309	(2,614,647)	(2,614,647)	943,843	0	(3,558,490)
City Division	1,770,836	573,989	1,486,789	1,196,847	284,047	6,765,538	623,300	4,750,419	6,142,238	2,015,119	15,540,642	15,540,642	13,123,106	-	2,417,536
Total LCA	2,225,102	(23,947)	1,645,324	2,249,049	579,779	7,715,961	616,744	4,812,838	7,099,217	2,903,123	15,273,731	15,273,731	17,088,982	0	(1,815,251)
<b>Cash Flow Statement</b>															
Suburban Water	2,898,510	2,674,300	(549,019)	224,209	3,447,528	2,715,237	2,109,571	(706,977)	605,666	3,422,214	(1,601,692)	(1,601,692)	577,447	(0)	(2,179,139)
Suburban Wastewater	(485,008)	(1,686,900)	174,901	1,201,892	(659,909)	807,254	(180,528)	10,409,484	987,782	(9,602,230)	(4,169,801)	(4,169,801)	5,061,792	1	(9,231,593)
City Division	(550,728)	(807,784)	(551,967)	257,056	1,239	(75,581)	(4,791,528)	4,895,273	4,715,948	(4,970,854)	(16,308,098)	(16,308,098)	(3,471,424)	0	(12,836,673)
Total LCA	1,862,774	179,617	(926,085)	1,683,157	2,788,859	3,446,910	(2,862,486)	14,597,780	6,309,396	(11,150,870)	(22,079,591)	(22,079,591)	2,167,815	1	(24,247,406)
<b>Debt Service Coverage Ratio</b>															
Suburban Water	2.50	1.66	2.03	0.83	0.46	2.94	2.20	2.08	0.74	0.87	2.36	2.36	2.58	-	(0.22)
Suburban Wastewater	4.50	(0.75)	7.85	5.25	(3.35)	3.06	1.71	5.87	1.36	(2.80)	2.16	2.16	7.09	0.00	(4.92)
City Division	2.57	1.86	2.13	0.71	0.44	2.89	1.62	2.21	1.27	0.68	2.19	2.19	2.00	-	0.19

LEHIGH COUNTY AUTHORITY  
CONSOLIDATED FINANCIAL STATEMENTS  
For the Period Ended March 31, 2026 (as of 04-9-26)

	Consolidated Financial Statements															
	Month				Year To Date				Q1 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>STATEMENTS OF ACTIVITIES</b>																
<b>Operating Revenues:</b>																
User Charges	1,476,471	1,830,805	5,662,421	8,969,698	4,489,692	4,702,038	16,250,166	25,441,896	19,690,755	20,962,747	65,371,290	106,024,792	19,690,755	20,962,747	65,371,290	106,024,792
Connection & System Charges	27,398	68,230	257,679	353,306	258,200	136,025	3,907,183	4,301,408	945,615	1,694,206	1,964,250	4,604,071	945,615	1,694,206	1,964,250	4,604,071
Other Miscellaneous Revenues	6,697	30	2,430	9,157	15,222	75	17,930	33,227	179,521	2,683	52,905	235,109	179,521	2,683	52,905	235,109
<b>Total Operating Revenues</b>	<b>1,510,566</b>	<b>1,899,065</b>	<b>5,922,530</b>	<b>9,332,161</b>	<b>4,763,114</b>	<b>4,838,137</b>	<b>20,175,279</b>	<b>29,776,531</b>	<b>20,815,891</b>	<b>22,659,636</b>	<b>67,388,445</b>	<b>110,863,972</b>	<b>20,815,891</b>	<b>22,659,636</b>	<b>67,388,445</b>	<b>110,863,972</b>
<b>Operating Expenses:</b>																
Personnel	241,837	68,472	1,211,426	1,521,735	711,867	158,089	4,756,945	5,626,901	4,706,501	2,536,754	14,720,010	21,963,266	4,706,501	2,536,754	14,720,010	21,963,266
Shared Services - General & Administrative	26,231	5,258	221,902	253,391	149,710	28,294	958,318	1,136,323	1,190,445	643,626	3,274,508	5,108,579	1,190,445	643,626	3,274,508	5,108,579
Utilities	60,961	30,087	127,433	218,481	173,661	78,795	537,943	790,399	603,704	370,859	2,143,389	3,117,952	603,704	370,859	2,143,389	3,117,952
Materials and Supplies	109,246	48,474	310,232	467,952	196,569	64,174	703,378	964,122	1,305,647	657,698	3,924,700	5,888,045	1,305,647	657,698	3,924,700	5,888,045
Miscellaneous Services	469,889	562,972	409,535	1,442,396	1,370,139	1,732,995	787,098	3,890,232	5,835,758	8,030,000	3,170,615	17,036,373	5,835,758	8,030,000	3,170,615	17,036,373
Treatment and Transportation	-	400,000	-	400,000	-	1,214,598	-	1,214,598	-	5,752,683	12,000	5,764,683	-	5,752,683	12,000	5,764,683
Depreciation and Amortization	351,842	583,014	603,258	1,538,114	1,055,527	1,749,041	1,809,773	4,614,340	4,175,007	7,143,176	7,308,409	18,626,592	4,175,007	7,143,176	7,308,409	18,626,592
Major Maintenance Expenses	-	-	-	-	-	-	-	-	-	-	4,100,000	4,100,000	-	-	4,100,000	4,100,000
Other Miscellaneous	-	-	-	-	2,750	1,254	-	4,004	201,483	22,653	-	224,136	201,483	22,653	-	224,136
<b>Total Operating Expenses</b>	<b>1,260,007</b>	<b>1,698,277</b>	<b>2,883,786</b>	<b>5,842,070</b>	<b>3,660,224</b>	<b>5,027,240</b>	<b>9,553,455</b>	<b>18,240,919</b>	<b>18,018,545</b>	<b>25,157,450</b>	<b>38,653,631</b>	<b>81,829,626</b>	<b>18,018,545</b>	<b>25,157,450</b>	<b>38,653,631</b>	<b>81,829,626</b>
<b>Net Operating Profit</b>	<b>250,559</b>	<b>200,788</b>	<b>3,038,744</b>	<b>3,490,092</b>	<b>1,102,891</b>	<b>(189,103)</b>	<b>10,621,824</b>	<b>11,535,612</b>	<b>2,797,346</b>	<b>(2,497,814)</b>	<b>28,734,814</b>	<b>29,034,346</b>	<b>2,797,346</b>	<b>(2,497,814)</b>	<b>28,734,814</b>	<b>29,034,346</b>
<b>Non-Operating Income (Expense)</b>																
Interest Income	94,248	33,227	345,444	472,919	303,459	107,085	983,783	1,394,328	911,982	59,260	1,432,632	2,403,874	911,982	59,260	1,432,632	2,403,874
Interest (Expense)	(74,561)	(49,995)	(1,613,352)	(1,737,908)	(223,709)	(150,201)	(4,840,070)	(5,213,979)	(1,361,592)	(176,093)	(21,236,805)	(22,774,490)	(1,361,592)	(176,093)	(21,236,805)	(22,774,490)
Other Miscellaneous	-	-	-	-	-	-	-	-	-	-	6,610,000	6,610,000	-	-	6,610,000	6,610,000
<b>Net Non-Operating Income (Expense)</b>	<b>19,687</b>	<b>(16,768)</b>	<b>(1,267,908)</b>	<b>(1,264,989)</b>	<b>79,750</b>	<b>(43,115)</b>	<b>(3,856,286)</b>	<b>(3,819,651)</b>	<b>(449,610)</b>	<b>(116,833)</b>	<b>(13,194,173)</b>	<b>(13,760,616)</b>	<b>(449,610)</b>	<b>(116,833)</b>	<b>(13,194,173)</b>	<b>(13,760,616)</b>
<b>Net Income (Loss)</b>	<b>270,246</b>	<b>184,020</b>	<b>1,770,836</b>	<b>2,225,102</b>	<b>1,182,641</b>	<b>(232,218)</b>	<b>6,765,538</b>	<b>7,715,961</b>	<b>2,347,736</b>	<b>(2,614,647)</b>	<b>15,540,642</b>	<b>15,273,731</b>	<b>2,347,736</b>	<b>(2,614,647)</b>	<b>15,540,642</b>	<b>15,273,731</b>
<b>CASH FLOW STATEMENT</b>																
<b>Cash Flows From Operating Activities</b>																
Operating Revenues	1,510,566	1,899,065	5,922,530	9,332,161	4,763,114	4,838,137	20,175,279	29,776,531	20,815,891	22,659,636	67,388,445	110,863,972	20,815,891	22,659,636	67,388,445	110,863,972
Operating Expenses (ex D&A)	(908,164)	(1,115,263)	(2,280,528)	(4,303,956)	(2,604,697)	(3,278,200)	(7,743,682)	(13,626,579)	(13,843,538)	(18,014,274)	(27,245,222)	(59,103,034)	(13,843,538)	(18,014,274)	(27,245,222)	(59,103,034)
Non-Cash Working Capital Changes	2,440,120	(1,083,222)	(52,789)	1,304,109	922,211	(206,800)	(4,116,208)	(3,400,797)	(0)	1	(0)	0	(0)	0	(0)	0
<b>Net Cash Provided by (Used in) Operating Activities</b>	<b>3,042,522</b>	<b>(299,421)</b>	<b>3,589,213</b>	<b>6,332,314</b>	<b>3,080,628</b>	<b>1,353,138</b>	<b>8,315,389</b>	<b>12,749,155</b>	<b>6,972,353</b>	<b>4,645,363</b>	<b>40,143,223</b>	<b>51,760,939</b>	<b>6,972,353</b>	<b>4,645,363</b>	<b>40,143,223</b>	<b>51,760,939</b>
<b>Cash Flows From Financing Activities</b>																
Capital Contributions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds New Borrowing	-	-	-	-	-	-	-	-	-	-	5,660,930	5,660,930	-	-	5,660,930	5,660,930
Interest Payments	(685)	(5,504)	(1,248,806)	(1,254,995)	(2,080)	(16,728)	(1,250,825)	(1,269,633)	(1,361,592)	(176,092)	(12,000,000)	(13,537,684)	(1,361,592)	(176,092)	(12,000,000)	(13,537,684)
Principal Payments	(6,558)	(40,053)	(5,356)	(51,966)	(19,748)	(119,942)	(15,948)	(155,637)	(1,984,435)	(2,000,831)	(6,079,392)	(10,064,658)	(1,984,435)	(2,000,831)	(6,079,392)	(10,064,658)
<b>Net Cash Provided by (Used in) Financing Activities</b>	<b>(7,243)</b>	<b>(45,557)</b>	<b>(1,254,162)</b>	<b>(1,306,961)</b>	<b>(21,827)</b>	<b>(136,670)</b>	<b>(1,266,773)</b>	<b>(1,425,270)</b>	<b>(3,346,027)</b>	<b>(2,176,923)</b>	<b>(12,418,462)</b>	<b>(17,941,412)</b>	<b>(3,346,027)</b>	<b>(2,176,924)</b>	<b>(12,418,462)</b>	<b>(17,941,413)</b>
<b>Cash Flows From Capital and Related Activities</b>																
Non-Operating Income (Expenses)	-	-	-	-	-	-	-	-	-	-	6,610,000	6,610,000	-	-	6,610,000	6,610,000
Capital Expenditures, net	(231,017)	(422,258)	(2,654,746)	(3,308,021)	(647,023)	(765,299)	(7,531,503)	(8,943,825)	(6,140,000)	(6,697,500)	(50,692,000)	(63,529,500)	(6,140,000)	(6,697,500)	(50,692,000)	(63,529,500)
<b>Net Cash Provided by (Used In) Capital and Related Activities</b>	<b>(231,017)</b>	<b>(422,258)</b>	<b>(2,654,746)</b>	<b>(3,308,021)</b>	<b>(647,023)</b>	<b>(765,299)</b>	<b>(7,531,503)</b>	<b>(8,943,825)</b>	<b>(6,140,000)</b>	<b>(6,697,500)</b>	<b>(44,082,000)</b>	<b>(56,919,500)</b>	<b>(6,140,000)</b>	<b>(6,697,500)</b>	<b>(44,082,000)</b>	<b>(56,919,500)</b>
<b>Cash Flows From Investing Activities</b>																
Investments Converting To Cash	245,000	494,000	-	739,000	245,000	494,000	-	739,000	-	-	-	-	-	-	-	-
Purchased Investments	(245,000)	(245,000)	-	(490,000)	(245,000)	(245,000)	-	(490,000)	-	-	-	-	-	-	-	-
Interest Income	94,248	33,227	345,444	472,919	303,459	107,085	983,783	1,394,328	911,982	59,260	1,432,632	2,403,874	911,982	59,260	1,432,632	2,403,874
<b>Net Cash Provided by (Used In) Investing Activities</b>	<b>94,248</b>	<b>282,227</b>	<b>345,444</b>	<b>721,919</b>	<b>303,459</b>	<b>356,085</b>	<b>983,783</b>	<b>1,643,328</b>	<b>911,982</b>	<b>59,260</b>	<b>1,432,632</b>	<b>2,403,874</b>	<b>911,982</b>	<b>59,260</b>	<b>1,432,632</b>	<b>2,403,874</b>
<b>FUND NET CASH FLOWS</b>	<b>2,898,510</b>	<b>(485,008)</b>	<b>25,749</b>	<b>2,439,251</b>	<b>2,715,237</b>	<b>807,254</b>	<b>500,896</b>	<b>4,023,387</b>	<b>(1,601,692)</b>	<b>(4,169,801)</b>	<b>(14,924,607)</b>	<b>(20,696,100)</b>	<b>(1,601,692)</b>	<b>(4,169,801)</b>	<b>(14,924,607)</b>	<b>(20,696,100)</b>
<b>DEBT SERVICE RATIO</b>																
<b>Debt Service Ratio (Indenture Based)</b>																
Total Operating Revenues	1,476,471	1,830,805	5,662,421	8,969,698	4,489,692	4,702,038	16,250,166	25,441,896	19,690,755	20,962,747	65,371,290	106,024,792	19,690,755	20,962,747	65,371,290	106,024,792
Total Operating Expenses (Cash Based)	(908,164)	(1,115,263)	(2,280,528)	(4,303,956)	(2,604,697)	(3,278,200)	(7,743,682)	(13,626,579)	(13,843,538)	(18,014,274)	(27,245,222)	(59,103,034)	(13,843,538)	(18,014,274)	(27,245,222)	(59,103,034)
Interest Income	94,248	33,227	345,444	472,919	303,459	107,085	983,783	1,394,328	911,982	59,260	1,432,632	2,403,874	911,982	59,260	1,432,632	2,403,874
Annual Lease Payment (City)	-	-	(115,291)	(115,291)	-	-	(345,873)	(345,873)	-	-	(1,383,491)	(1,383,491)	-	-	(1,383,491)	(1,383,491)
Total Non-Operating Revenues (Expenses)	34,095	68,260	260,109	362,464	273,422	136,100	3,925,113	4,334,635	1,125,136	1,696,889	1,399,036	4,221,061	1,125,136	1,696,889	1,399,036	4,221,061
<b>Cash Available For Debt Service</b>	<b>696,649</b>	<b>817,029</b>	<b>3,872,155</b>	<b>5,385,833</b>	<b>2,461,876</b>	<b>1,667,023</b>	<b>13,069,508</b>	<b>17,198,407</b>	<b>7,884,335</b>	<b>4,704,622</b>	<b>39,574,245</b>	<b>52,163,202</b>	<b>7,884,335</b>	<b>4,704,622</b>	<b>39,574,245</b>	<b>52,163,202</b>
Interest Paid	113,466	14,674	1,000,000	1,128,140	340,398	44,023	3,000,000	3,384,421	1,361,592	176,092	12,000,000	13,537,684	1,361,592	176,092	12,000,000	13,537,684
Debt Retirement (Principal Payments)	165,370	166,736	506,616	838,722	496,109	500,208	1,519,848	2,516,165	1,984,435	2,000,831	6,079,392	10,064,658	1,984,435	2,000,831	6,079,392	10,064,658
<b>Total Debt Service</b>	<b>278,836</b>	<b>181,410</b>	<b>1,506,616</b>	<b>1,966,862</b>	<b>836,507</b>	<b>544,231</b>	<b>4,519,848</b>	<b>5,900,586</b>	<b>3,346,027</b>	<b>2,176,923</b>	<b>18,079,392</b>	<b>23,602,342</b>	<b>3,346,027</b>	<b>2,176,924</b>	<b>18,079,392</b>	<b>23,602,343</b>
<b>Debt Service Ratio</b>	<b>2.50</b>	<b>4.50</b>	<b>2.57</b>	<b>2.74</b>	<b>2.94</b>	<b>3.06</b>	<b>2.89</b>	<b>2.91</b>	<b>2.36</b>	<b>2.16</b>	<b>2.19</b>	<b>2.21</b>	<b>2.36</b>	<b>2.16</b>	<b>2.19</b>	<b>2.21</b>

LEHIGH COUNTY AUTHORITY  
 CASH & INVESTMENT SUMMARY  
 For the Period Ended March 31, 2026 (as of 04-9-26)

	Suburban Water				Suburban Wastewater				City Division				Total			
	3/31/2026 Actual	2026 Forecast	2026 Budget	2025 Audited	3/31/2026 Actual	2026 Forecast	2026 Budget	2025 Audited	3/31/2026 Actual	2026 Forecast	2026 Budget	2025 Audited	3/31/2026 Actual	2026 Forecast	2026 Budget	2025 Audited
<b>Cash</b>																
<b>Operating</b>																
Unrestricted	12,630,718	8,318,587	7,282,168	9,920,280	10,110,411	1,287,819	(3,296,486)	9,305,639	57,194,332	39,457,438	24,290,541	55,765,537	79,935,461	49,063,845	28,276,223	74,991,455
Restricted	-	-	-	-	22,759	20,277	9,877	20,277	35,408,051	42,598,715	51,297,497	42,598,715	35,430,809	42,618,993	51,307,374	42,618,993
<b>Total Operating</b>	<b>12,630,718</b>	<b>8,318,587</b>	<b>7,282,168</b>	<b>9,920,280</b>	<b>10,133,170</b>	<b>1,308,097</b>	<b>(3,286,608)</b>	<b>9,325,916</b>	<b>92,602,383</b>	<b>82,056,154</b>	<b>75,588,038</b>	<b>98,364,252</b>	<b>115,366,270</b>	<b>91,682,838</b>	<b>79,583,597</b>	<b>117,610,448</b>
<b>Capital</b>																
Unrestricted	319,718	319,718	319,718	319,718	2,107,366	5,955,385	5,955,385	2,107,366	3,022,601	3,022,601	3,022,601	3,022,601	5,449,685	9,297,704	9,297,704	5,449,685
Restricted	-	-	-	-	338,360	338,360	338,360	338,360	7,500,035	7,500,035	7,500,035	7,500,035	7,838,396	7,838,396	7,838,396	7,838,396
<b>Total Capital</b>	<b>319,718</b>	<b>319,718</b>	<b>319,718</b>	<b>319,718</b>	<b>2,445,726</b>	<b>6,293,745</b>	<b>6,293,745</b>	<b>2,445,726</b>	<b>10,522,636</b>	<b>10,522,636</b>	<b>10,522,636</b>	<b>10,522,636</b>	<b>13,288,081</b>	<b>17,136,099</b>	<b>17,136,099</b>	<b>13,288,081</b>
<b>Other Restricted</b>																
Debt Reserves	1,637,513	1,656,708	1,658,337	1,656,708	-	-	-	-	39,371,007	33,684,718	31,800,765	33,684,718	41,008,520	35,341,426	33,459,102	35,341,426
Escrow - Developer Deposits	260,682	236,689	260,682	236,689	7,764	7,764	7,764	7,764	46,490	46,490	3,403	46,490	314,937	290,943	271,849	290,943
<b>Total Other Restricted</b>	<b>1,898,196</b>	<b>1,893,397</b>	<b>1,919,019</b>	<b>1,893,397</b>	<b>7,764</b>	<b>7,764</b>	<b>7,764</b>	<b>7,764</b>	<b>39,417,497</b>	<b>33,731,208</b>	<b>31,804,167</b>	<b>33,731,208</b>	<b>41,323,457</b>	<b>35,632,369</b>	<b>33,730,951</b>	<b>35,632,369</b>
<b>Total Cash</b>	<b>14,848,632</b>	<b>10,531,702</b>	<b>9,520,905</b>	<b>12,133,395</b>	<b>12,586,660</b>	<b>7,609,605</b>	<b>3,014,900</b>	<b>11,779,406</b>	<b>142,542,516</b>	<b>126,309,998</b>	<b>117,914,841</b>	<b>142,618,097</b>	<b>169,977,808</b>	<b>144,451,306</b>	<b>130,450,647</b>	<b>166,530,898</b>
<b>Investments</b>																
<b>Operating</b>																
Unrestricted	2,150,300	2,148,223	1,846,053	2,148,223	6,728,503	7,247,305	7,278,350	7,247,305	-	-	-	-	8,878,803	9,395,528	9,124,403	9,395,528
Restricted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Operating</b>	<b>2,150,300</b>	<b>2,148,223</b>	<b>1,846,053</b>	<b>2,148,223</b>	<b>6,728,503</b>	<b>7,247,305</b>	<b>7,278,350</b>	<b>7,247,305</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>8,878,803</b>	<b>9,395,528</b>	<b>9,124,403</b>	<b>9,395,528</b>
<b>Capital</b>																
Unrestricted	1,000,000	1,000,000	1,000,000	1,000,000	-	-	-	-	-	-	-	-	1,000,000	1,000,000	1,000,000	1,000,000
Restricted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Capital</b>	<b>1,000,000</b>	<b>1,000,000</b>	<b>1,000,000</b>	<b>1,000,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,000,000</b>	<b>1,000,000</b>	<b>1,000,000</b>	<b>1,000,000</b>
<b>Other Restricted</b>																
Debt Reserves	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Escrow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Other Restricted</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total Investments</b>	<b>3,150,300</b>	<b>3,148,223</b>	<b>2,846,053</b>	<b>3,148,223</b>	<b>6,728,503</b>	<b>7,247,305</b>	<b>7,278,350</b>	<b>7,247,305</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>9,878,803</b>	<b>10,395,528</b>	<b>10,124,403</b>	<b>10,395,528</b>
<b>Total Cash and Investments</b>	<b>17,998,932</b>	<b>13,679,925</b>	<b>12,366,957</b>	<b>15,281,618</b>	<b>19,315,163</b>	<b>14,856,910</b>	<b>10,293,250</b>	<b>19,026,711</b>	<b>142,542,516</b>	<b>126,309,998</b>	<b>117,914,841</b>	<b>142,618,097</b>	<b>179,856,611</b>	<b>154,846,834</b>	<b>140,575,049</b>	<b>176,926,425</b>
<b>Summary</b>																
<b>Cash</b>																
Unrestricted	12,950,436	8,638,305	7,601,885	10,239,998	12,217,777	7,243,204	2,658,899	11,413,005	60,216,933	42,480,039	27,313,142	58,788,138	85,385,146	58,361,549	37,573,926	80,155,230
Restricted	1,898,196	1,893,397	1,919,019	1,893,397	368,883	366,401	356,001	366,401	82,325,583	83,829,959	90,601,699	83,829,959	84,592,662	86,089,757	92,876,720	86,089,757
<b>Total Cash</b>	<b>14,848,632</b>	<b>10,531,702</b>	<b>9,520,905</b>	<b>12,133,395</b>	<b>12,586,660</b>	<b>7,609,605</b>	<b>3,014,900</b>	<b>11,779,406</b>	<b>142,542,516</b>	<b>126,309,998</b>	<b>117,914,841</b>	<b>142,618,097</b>	<b>169,977,808</b>	<b>144,451,306</b>	<b>130,450,647</b>	<b>166,244,987</b>
<b>Investments</b>																
Unrestricted	3,150,300	3,148,223	2,846,053	3,148,223	6,728,503	7,247,305	7,278,350	7,247,305	-	-	-	-	9,878,803	10,395,528	10,124,403	10,395,528
Restricted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Investments</b>	<b>3,150,300</b>	<b>3,148,223</b>	<b>2,846,053</b>	<b>3,148,223</b>	<b>6,728,503</b>	<b>7,247,305</b>	<b>7,278,350</b>	<b>7,247,305</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>9,878,803</b>	<b>10,395,528</b>	<b>10,124,403</b>	<b>10,395,528</b>
<b>Total Cash and Investments</b>	<b>17,998,932</b>	<b>13,679,925</b>	<b>12,366,957</b>	<b>15,281,618</b>	<b>19,315,163</b>	<b>14,856,910</b>	<b>10,293,250</b>	<b>19,026,711</b>	<b>142,542,516</b>	<b>126,309,998</b>	<b>117,914,841</b>	<b>142,618,097</b>	<b>179,856,611</b>	<b>154,846,834</b>	<b>140,575,049</b>	<b>176,640,515</b>

LEHIGH COUNTY AUTHORITY  
 FINANCIAL STATEMENTS - SUBURBAN WATER  
 For the Period Ended March 31, 2026 (as of 04-9-26)

STATEMENTS OF ACTIVITIES	Suburban - Water														
	Month					Year To Date					Full Year				
	Actual	Q1 FC	Prior Year	FC Var	PY Var	Actual	Q1 FC	Prior Year	FC Var	PY Var	Q1 FC	Budget	Prior Year	Bud Var	PY Var
<b>Operating Revenues:</b>															
User Charges	1,476,471	1,402,064	1,477,235	74,407	(764)	4,489,692	4,388,695	4,296,904	100,997	192,788	19,690,755	19,690,755	17,871,872	-	1,818,883
Connection & System Charges	27,398	191,630	130,209	(164,233)	(102,811)	258,200	281,851	218,757	(23,650)	39,444	945,615	945,615	1,181,639	-	(236,024)
Other Miscellaneous Revenues	6,697	5,373	1,945	1,324	4,752	15,222	7,424	6,310	7,798	8,912	179,521	179,521	214,574	-	(35,053)
<b>Total Operating Revenues</b>	<b>1,510,566</b>	<b>1,599,068</b>	<b>1,609,389</b>	<b>(88,502)</b>	<b>(98,823)</b>	<b>4,763,114</b>	<b>4,677,970</b>	<b>4,521,971</b>	<b>85,145</b>	<b>241,144</b>	<b>20,815,891</b>	<b>20,815,891</b>	<b>19,268,085</b>	<b>-</b>	<b>1,547,805</b>
<b>Operating Expenses:</b>															
Personnel	241,837	465,109	521,958	223,271	280,121	711,867	1,154,918	1,449,274	443,051	737,407	4,706,501	4,706,501	3,815,977	-	(890,524)
Shared Services - General & Administrative	26,231	121,214	134,760	94,983	108,529	149,710	257,067	300,257	107,356	150,547	1,190,445	1,190,445	699,479	-	(490,966)
Utilities	60,961	55,401	76,398	(5,560)	15,437	173,661	162,352	193,835	(11,309)	20,174	603,704	603,704	545,690	(0)	(58,014)
Materials and Supplies	109,246	137,897	93,967	28,650	(15,279)	196,569	226,267	169,093	29,698	(27,477)	1,305,647	1,305,647	667,373	-	(638,274)
Miscellaneous Services	469,889	409,799	320,888	(60,090)	(149,001)	1,370,139	1,199,405	908,368	(170,734)	(461,772)	5,835,758	5,835,758	5,664,165	-	(171,593)
Treatment and Transportation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Depreciation and Amortization	351,842	306,485	299,834	(45,357)	(52,008)	1,055,527	919,456	899,502	(136,071)	(156,024)	4,175,007	4,175,007	4,364,878	-	189,871
Major Maintenance Expenses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Miscellaneous	-	-	-	-	-	2,750	-	-	(2,750)	(2,750)	201,483	201,483	457,836	-	256,353
<b>Total Operating Expenses</b>	<b>1,260,007</b>	<b>1,495,904</b>	<b>1,447,805</b>	<b>235,898</b>	<b>187,798</b>	<b>3,660,224</b>	<b>3,919,465</b>	<b>3,920,329</b>	<b>259,241</b>	<b>260,105</b>	<b>18,018,545</b>	<b>18,018,545</b>	<b>16,215,397</b>	<b>(0)</b>	<b>(1,803,148)</b>
<b>Net Operating Profit</b>	<b>250,559</b>	<b>103,164</b>	<b>161,584</b>	<b>147,396</b>	<b>88,975</b>	<b>1,102,891</b>	<b>758,505</b>	<b>601,642</b>	<b>344,386</b>	<b>501,249</b>	<b>2,797,346</b>	<b>2,797,346</b>	<b>3,052,688</b>	<b>(0)</b>	<b>(255,343)</b>
<b>Non-Operating Income (Expense)</b>															
Interest Income	94,248	54,607	120,490	39,641	(26,242)	303,459	163,972	280,153	139,487	23,306	911,982	911,982	873,180	-	38,802
Interest (Expense)	(74,561)	(84,360)	(81,942)	9,799	7,380	(223,709)	(253,104)	(245,849)	29,396	22,140	(1,361,592)	(1,361,592)	(1,463,504)	-	101,912
Other Miscellaneous	-	-	-	-	-	-	-	-	-	-	-	-	559,668	-	(559,668)
<b>Net Non-Operating Income (Expense)</b>	<b>19,687</b>	<b>(29,753)</b>	<b>38,548</b>	<b>49,440</b>	<b>(18,862)</b>	<b>79,750</b>	<b>(89,132)</b>	<b>34,304</b>	<b>168,882</b>	<b>45,446</b>	<b>(449,610)</b>	<b>(449,610)</b>	<b>(30,655)</b>	<b>-</b>	<b>(418,955)</b>
<b>Net Income (Loss)</b>	<b>270,246</b>	<b>73,410</b>	<b>200,133</b>	<b>196,836</b>	<b>70,113</b>	<b>1,182,641</b>	<b>669,373</b>	<b>635,946</b>	<b>513,268</b>	<b>546,695</b>	<b>2,347,736</b>	<b>2,347,736</b>	<b>3,022,033</b>	<b>(0)</b>	<b>(674,297)</b>

CASH FLOW STATEMENT	Suburban - Water														
Cash Flows From Operating Activities	Month					Year To Date					Full Year				
	Actual	Q1 FC	Prior Year	FC Var	PY Var	Actual	Q1 FC	Prior Year	FC Var	PY Var	Q1 FC	Budget	Prior Year	Bud Var	PY Var
Operating Revenues	1,510,566	1,599,068	1,609,389	(88,502)	(98,823)	4,763,114	4,677,970	4,521,971	85,145	241,144	20,815,891	20,815,891	19,268,085	-	1,547,805
Operating Expenses (ex D&A)	(908,164)	(1,189,419)	(1,147,971)	281,254	239,806	(2,604,697)	(3,000,009)	(3,020,826)	395,312	416,129	(13,843,538)	(13,843,538)	(11,850,519)	-	(1,993,019)
Non-Cash Working Capital Changes	2,440,120	2,448,893	(158,411)	(8,772)	2,598,532	922,211	922,211	(842,787)	(0)	1,764,998	(0)	0	812,135	(0)	(812,135)
<b>Net Cash Provided by (Used in) Operating Activities</b>	<b>3,042,522</b>	<b>2,858,542</b>	<b>303,007</b>	<b>183,980</b>	<b>2,739,515</b>	<b>3,080,628</b>	<b>2,600,172</b>	<b>658,357</b>	<b>480,456</b>	<b>2,422,271</b>	<b>6,972,353</b>	<b>6,972,353</b>	<b>8,229,701</b>	<b>(0)</b>	<b>(1,257,349)</b>
<b>Cash Flows From Financing Activities</b>															
Capital Contributions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds New Borrowing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Payments	(685)	(2,873)	(783)	2,188	98	(2,080)	(8,618)	(2,373)	6,539	294	(1,361,592)	(1,361,592)	(1,463,504)	-	101,912
Principal Payments	(6,558)	(8,575)	(6,459)	2,017	(99)	(19,748)	(25,726)	(19,353)	5,978	(394)	(1,984,435)	(1,984,435)	(1,969,039)	-	(15,396)
<b>Net Cash Provided by (Used in) Financing Activities</b>	<b>(7,243)</b>	<b>(11,448)</b>	<b>(7,242)</b>	<b>4,205</b>	<b>(1)</b>	<b>(21,827)</b>	<b>(34,344)</b>	<b>(21,727)</b>	<b>12,517</b>	<b>(101)</b>	<b>(3,346,027)</b>	<b>(3,346,027)</b>	<b>(3,432,543)</b>	<b>-</b>	<b>86,516</b>
<b>Cash Flows from Capital and Related Activities</b>															
Non-Operating Income (Expenses)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Capital Expenditures, net	(231,017)	(227,400)	(707,273)	(3,617)	476,256	(647,023)	(620,229)	(1,365,761)	(26,794)	718,738	(6,140,000)	(6,140,000)	(4,790,722)	-	(1,349,279)
<b>Net Cash Provided By (Used In) Capital and Related Activities</b>	<b>(231,017)</b>	<b>(227,400)</b>	<b>(707,273)</b>	<b>(3,617)</b>	<b>476,256</b>	<b>(647,023)</b>	<b>(620,229)</b>	<b>(1,365,761)</b>	<b>(26,794)</b>	<b>718,738</b>	<b>(6,140,000)</b>	<b>(6,140,000)</b>	<b>(4,790,722)</b>	<b>-</b>	<b>(1,349,279)</b>
<b>Cash Flows From Investing Activities</b>															
Investments Converting To Cash	245,000	-	489,000	245,000	(244,000)	245,000	-	489,000	245,000	(244,000)	-	-	734,000	-	(734,000)
Purchased Investments	(245,000)	-	(747,000)	(245,000)	502,000	(245,000)	-	(747,000)	(245,000)	502,000	-	-	(1,036,170)	-	1,036,170
Interest Income	94,248	54,607	120,490	39,641	(26,242)	303,459	163,972	280,153	139,487	23,306	911,982	911,982	873,180	-	38,802
<b>Net Cash Provided By (Used In) Investing Activities</b>	<b>94,248</b>	<b>54,607</b>	<b>(137,510)</b>	<b>39,641</b>	<b>231,758</b>	<b>303,459</b>	<b>163,972</b>	<b>22,153</b>	<b>139,487</b>	<b>281,306</b>	<b>911,982</b>	<b>911,982</b>	<b>571,010</b>	<b>-</b>	<b>340,972</b>
<b>FUND NET CASH FLOWS</b>	<b>2,898,510</b>	<b>2,674,300</b>	<b>(549,019)</b>	<b>224,209</b>	<b>3,447,528</b>	<b>2,715,237</b>	<b>2,109,571</b>	<b>(706,977)</b>	<b>605,666</b>	<b>3,422,214</b>	<b>(1,601,692)</b>	<b>(1,601,692)</b>	<b>577,447</b>	<b>(0)</b>	<b>(2,179,139)</b>

DEBT SERVICE RATIO	Suburban - Water														
Debt Service Ratio (Indenture Based)	Month					Year To Date					Full Year				
	Actual	Q1 FC	Prior Year	FC Var	PY Var	Actual	Q1 FC	Prior Year	FC Var	PY Var	Q1 FC	Budget	Prior Year	Bud Var	PY Var
User Charges	1,476,471	1,402,064	1,477,235	74,407	(764)	4,489,692	4,388,695	4,296,904	100,997	192,788	19,690,755	19,690,755	17,871,872	-	1,818,883
Operating Expenses (Cash Based)	(908,164)	(1,189,419)	(1,147,971)	281,254	239,806	(2,604,697)	(3,000,009)	(3,020,826)	395,312	416,129	(13,843,538)	(13,843,538)	(11,850,519)	-	(1,993,019)
Interest Income	94,248	54,607	120,490	39,641	(26,242)	303,459	163,972	280,153	139,487	23,306	911,982	911,982	1,432,848	-	(520,866)
Annual Lease Payment (City)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-Operating Revenues (Expenses)	34,095	197,004	132,154	(162,909)	(98,059)	273,422	289,275	225,067	(15,853)	48,356	1,125,136	1,125,136	1,396,214	-	(271,078)
<b>Cash Available For Debt Service</b>	<b>696,649</b>	<b>464,256</b>	<b>581,908</b>	<b>232,393</b>	<b>114,741</b>	<b>2,461,876</b>	<b>1,841,933</b>	<b>1,781,298</b>	<b>619,943</b>	<b>680,579</b>	<b>7,884,335</b>	<b>7,884,335</b>	<b>8,850,414</b>	<b>-</b>	<b>(966,080)</b>
<b>Debt Service</b>															
Interest Paid (Pro-rated)	113,466	113,466	121,959	-	(8,493)	340,398	340,398	365,876	-	(25,478)	1,361,592	1,361,592	1,463,504	-	(101,912)
Debt Retirement (Principal Payments) (Pro-rated)	165,370	165,370	164,087	-	1,283	496,109	496,109	492,260	-	3,849	1,984,435	1,984,435	1,969,039	-	15,396
<b>Total Debt Service</b>	<b>278,836</b>	<b>278,836</b>	<b>286,045</b>	<b>-</b>	<b>(7,210)</b>	<b>836,507</b>	<b>836,507</b>	<b>858,136</b>	<b>-</b>	<b>(21,629)</b>	<b>3,346,027</b>	<b>3,346,027</b>	<b>3,432,543</b>	<b>-</b>	<b>(86,516)</b>
<b>Debt Service Ratio</b>	<b>2.50</b>	<b>1.66</b>	<b>2.03</b>	<b>0.83</b>	<b>0.46</b>	<b>2.94</b>	<b>2.20</b>	<b>2.08</b>	<b>0.74</b>	<b>0.87</b>	<b>2.36</b>	<b>2.36</b>	<b>2.58</b>	<b>-</b>	<b>(0.22)</b>

LEHIGH COUNTY AUTHORITY  
 VARIANCE ANALYSIS - YTD  
 For the Period Ended March 31, 2026 (as of 04-9-26)

**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	Q1 FC	FC Var	Comments
4,489,692	4,388,695	100,997	
258,200	281,851	(23,650)	
15,222	7,424	7,798	
<b>4,763,114</b>	<b>4,677,970</b>	<b>85,145</b>	<b>Higher user charges offset somewhat by lower system charges</b>
711,867	1,154,918	443,051	
149,710	257,067	107,356	
173,661	162,352	(11,309)	
196,569	226,267	29,698	
1,370,139	1,199,405	(170,734)	
-	-	-	
1,055,527	919,456	(136,071)	
-	-	-	
2,750	-	(2,750)	
<b>3,660,224</b>	<b>3,919,465</b>	<b>259,241</b>	<b>Lower personnel costs and lower G&amp;A costs</b>
<b>1,102,891</b>	<b>758,505</b>	<b>344,386</b>	<b>Higher operating revenues along with lower operating expenses</b>
303,459	163,972	139,487	
(223,709)	(253,104)	29,396	
-	-	-	
<b>79,750</b>	<b>(89,132)</b>	<b>168,882</b>	<b>Higher interest income</b>
<b>1,182,641</b>	<b>669,373</b>	<b>513,268</b>	<b>Higher net operating income aided by higher interest income</b>
4,763,114	4,677,970	85,145	
(2,604,697)	(3,000,009)	395,312	
922,211	922,211	(0)	
<b>3,080,628</b>	<b>2,600,172</b>	<b>480,456</b>	<b>Higher net operating income</b>
-	-	-	
-	-	-	
(2,080)	(8,618)	6,539	
(19,748)	(25,726)	5,978	
<b>(21,827)</b>	<b>(34,344)</b>	<b>12,517</b>	
-	-	-	
(647,023)	(620,229)	(26,794)	
<b>(647,023)</b>	<b>(620,229)</b>	<b>(26,794)</b>	
245,000	-	245,000	
(245,000)	-	(245,000)	
303,459	163,972	139,487	
<b>303,459</b>	<b>163,972</b>	<b>139,487</b>	<b>Higher interest income</b>
<b>2,715,237</b>	<b>2,109,571</b>	<b>605,666</b>	<b>Higher cash from operations along with higher interest income</b>

LEHIGH COUNTY AUTHORITY  
 FINANCIAL STATEMENTS - SUBURBAN WASTEWATER  
 For the Period Ended March 31, 2026 (as of 04-9-26)

STATEMENTS OF ACTIVITIES	Suburban - Wastewater														
	Month					Year To Date					Full Year				
	Actual	Q1 FC	Prior Year	FC Var	PY Var	Actual	Q1 FC	Prior Year	FC Var	PY Var	Q1 FC	Budget	Prior Year	Bud Var	PY Var
<b>Operating Revenues:</b>															
User Charges	1,830,805	1,361,628	1,496,719	469,177	334,086	4,702,038	5,055,230	4,604,053	(353,193)	97,984	20,962,747	20,962,747	18,642,783	-	2,319,964
Connection & System Charges	68,230	56,495	148,027	11,735	(79,797)	136,025	176,870	362,330	(40,846)	(26,305)	1,694,206	1,694,206	1,514,701	-	179,505
Other Miscellaneous Revenues	30	51	283,558	(21)	(283,528)	75	102	283,573	(27)	(283,498)	2,683	2,683	229,859	-	(227,176)
<b>Total Operating Revenues</b>	<b>1,899,065</b>	<b>1,418,174</b>	<b>1,928,304</b>	<b>480,891</b>	<b>(29,239)</b>	<b>4,838,137</b>	<b>5,232,202</b>	<b>5,249,956</b>	<b>(394,065)</b>	<b>(411,818)</b>	<b>22,659,636</b>	<b>22,659,636</b>	<b>20,387,342</b>	<b>-</b>	<b>2,272,294</b>
<b>Operating Expenses:</b>															
Personnel	68,472	346,773	210,447	278,300	141,974	158,089	749,916	521,935	591,827	363,846	2,536,754	2,536,754	1,358,397	-	(1,178,357)
Shared Services - General & Administrative	5,258	48,450	33,551	43,192	28,293	28,294	135,514	89,107	107,219	60,812	643,626	643,626	250,508	-	(393,118)
Utilities	30,087	58,639	37,116	28,553	7,029	78,795	131,478	98,288	52,683	19,492	370,859	370,859	271,191	-	(99,668)
Materials and Supplies	48,474	53,586	31,823	5,112	(16,650)	64,174	123,732	75,760	59,557	11,586	657,698	657,698	301,814	-	(355,884)
Miscellaneous Services	562,972	583,847	669,728	20,874	106,755	1,732,995	1,773,242	1,899,348	40,247	166,353	8,030,000	8,030,000	7,693,728	-	(336,272)
Treatment and Transportation	400,000	464,875	400,000	64,875	0	1,214,598	1,394,626	1,367,043	180,029	152,446	5,752,683	5,752,683	5,320,368	0	(432,315)
Depreciation and Amortization	583,014	520,073	579,763	(62,941)	(3,251)	1,749,041	1,560,177	1,739,289	(188,863)	(9,752)	7,143,176	7,143,176	5,115,075	0	(2,028,101)
Major Maintenance Expenses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Miscellaneous	-	-	-	-	-	1,254	-	-	(1,254)	(1,254)	22,653	22,653	-	-	(22,653)
<b>Total Operating Expenses</b>	<b>1,698,277</b>	<b>2,076,243</b>	<b>1,962,427</b>	<b>377,966</b>	<b>264,150</b>	<b>5,027,240</b>	<b>5,868,685</b>	<b>5,790,770</b>	<b>841,444</b>	<b>763,529</b>	<b>25,157,450</b>	<b>25,157,450</b>	<b>20,311,082</b>	<b>0</b>	<b>(4,846,368)</b>
<b>Net Operating Profit</b>	<b>200,788</b>	<b>(658,069)</b>	<b>(34,123)</b>	<b>858,857</b>	<b>234,911</b>	<b>(189,103)</b>	<b>(636,482)</b>	<b>(540,814)</b>	<b>447,380</b>	<b>351,711</b>	<b>(2,497,814)</b>	<b>(2,497,814)</b>	<b>76,260</b>	<b>0</b>	<b>(2,574,074)</b>
<b>Non-Operating Income (Expense)</b>															
Interest Income	33,227	1,802	46,588	31,426	(13,361)	107,085	5,496	129,688	101,589	(22,603)	59,260	59,260	593,077	-	(533,817)
Interest (Expense)	(49,995)	(15,079)	(54,063)	(34,916)	4,068	(150,201)	(44,942)	(162,401)	(105,258)	12,201	(176,093)	(176,093)	(357,155)	-	181,062
Other Miscellaneous	-	-	-	-	-	-	-	-	-	-	-	-	631,660	-	(631,660)
<b>Net Non-Operating Income (Expense)</b>	<b>(16,768)</b>	<b>(13,277)</b>	<b>(7,475)</b>	<b>(3,491)</b>	<b>(9,293)</b>	<b>(43,115)</b>	<b>(39,446)</b>	<b>(32,714)</b>	<b>(3,669)</b>	<b>(10,402)</b>	<b>(116,833)</b>	<b>(116,833)</b>	<b>867,582</b>	<b>-</b>	<b>(984,415)</b>
<b>Net Income (Loss)</b>	<b>184,020</b>	<b>(671,346)</b>	<b>(41,598)</b>	<b>855,366</b>	<b>225,618</b>	<b>(232,218)</b>	<b>(675,929)</b>	<b>(573,527)</b>	<b>443,711</b>	<b>341,309</b>	<b>(2,614,647)</b>	<b>(2,614,647)</b>	<b>943,843</b>	<b>0</b>	<b>(3,558,490)</b>

CASH FLOW STATEMENT					
Cash Flows From Operating Activities					
Operating Revenues	1,899,065	1,418,174	1,928,304	480,891	(29,239)
Operating Expenses (ex D&A)	(1,115,263)	(1,556,170)	(1,382,664)	440,907	267,401
Non-Cash Working Capital Changes	(1,083,222)	(1,081,975)	(96,860)	(1,247)	(986,363)
<b>Net Cash Provided by (Used in) Operating Activities</b>	<b>(299,421)</b>	<b>(1,219,971)</b>	<b>448,781</b>	<b>920,551</b>	<b>(748,201)</b>
Cash Flows From Financing Activities					
Capital Contributions	-	-	-	-	-
Proceeds New Borrowing	-	-	-	-	-
Interest Payments	(5,504)	(6,359)	(6,359)	855	855
Principal Payments	(40,053)	(39,197)	(39,197)	(856)	(856)
<b>Net Cash Provided by (Used in) Financing Activities</b>	<b>(45,557)</b>	<b>(45,556)</b>	<b>(45,556)</b>	<b>(1)</b>	<b>(1)</b>
Cash Flows From Capital and Related Activities					
Non-Operating Income (Expenses)	-	-	-	-	-
Capital Expenditures, net	(422,258)	(423,174)	(268,912)	916	(153,346)
<b>Net Cash Provided by (Used in) Capital and Related Activities</b>	<b>(422,258)</b>	<b>(423,174)</b>	<b>(268,912)</b>	<b>916</b>	<b>(153,346)</b>
Cash Flows From Investing Activities					
Investments Converting To Cash	494,000	-	243,000	494,000	251,000
Purchased Investments	(245,000)	-	(249,000)	(245,000)	4,000
Interest Income	33,227	1,802	46,588	31,426	(13,361)
<b>Net Cash Provided By (Used In) Investing Activities</b>	<b>282,227</b>	<b>1,802</b>	<b>40,588</b>	<b>280,426</b>	<b>241,639</b>
<b>FUND NET CASH FLOWS</b>	<b>(485,008)</b>	<b>(1,686,900)</b>	<b>174,901</b>	<b>1,201,892</b>	<b>(659,909)</b>

4,838,137	5,232,202	5,249,956	(394,065)	(411,818)
(3,278,200)	(4,308,507)	(4,051,481)	1,030,308	773,281
(206,800)	(206,830)	4,746,785	30	(4,953,585)
<b>1,353,138</b>	<b>716,865</b>	<b>5,945,260</b>	<b>636,273</b>	<b>(4,592,122)</b>
-	-	5,000,000	-	(5,000,000)
(16,728)	(19,288)	(19,288)	2,560	2,560
(119,942)	(117,381)	(117,381)	(2,561)	(2,561)
<b>(136,670)</b>	<b>(136,669)</b>	<b>4,863,331</b>	<b>(1)</b>	<b>(5,000,001)</b>
-	-	-	-	-
(765,299)	(766,220)	(514,795)	921	(250,504)
<b>(765,299)</b>	<b>(766,220)</b>	<b>(514,795)</b>	<b>921</b>	<b>(250,504)</b>
494,000	-	1,632,000	494,000	(1,138,000)
(245,000)	-	(1,646,000)	(245,000)	1,401,000
107,085	5,496	129,688	101,589	(22,603)
<b>356,085</b>	<b>5,496</b>	<b>115,688</b>	<b>350,589</b>	<b>240,397</b>
<b>807,254</b>	<b>(180,528)</b>	<b>10,409,484</b>	<b>987,782</b>	<b>(9,602,230)</b>

22,659,636	22,659,636	20,387,342	-	2,272,294
(18,014,274)	(18,014,274)	(15,196,007)	-	(2,818,267)
1	0	(3,198,469)	0	3,198,470
<b>4,645,363</b>	<b>4,645,363</b>	<b>1,992,867</b>	<b>0</b>	<b>2,652,496</b>
-	-	-	-	-
(176,092)	(176,093)	(431,424)	1	255,332
(2,000,831)	(2,000,831)	(474,019)	(0)	(1,526,812)
<b>(2,176,923)</b>	<b>(2,176,924)</b>	<b>16,094,557</b>	<b>1</b>	<b>(18,271,480)</b>
-	-	(369,576)	-	369,576
(6,697,500)	(6,697,500)	(13,271,132)	(0)	6,573,632
<b>(6,697,500)</b>	<b>(6,697,500)</b>	<b>(13,640,708)</b>	<b>(0)</b>	<b>6,943,208</b>
-	-	3,602,000	-	(3,602,000)
-	-	(3,580,000)	-	3,580,000
59,260	59,260	593,077	-	(533,817)
<b>59,260</b>	<b>59,260</b>	<b>615,077</b>	<b>-</b>	<b>(555,817)</b>
<b>(4,169,801)</b>	<b>(4,169,801)</b>	<b>5,061,792</b>	<b>1</b>	<b>(9,231,593)</b>

DEBT SERVICE RATIO					
Debt Service Ratio (Indenture Based)					
User Charges	1,830,805	1,361,628	1,496,719	469,177	334,086
Operating Expenses (Cash Based)	(1,115,263)	(1,556,170)	(1,382,664)	440,907	267,401
Interest Income	33,227	1,802	46,588	31,426	(13,361)
Annual Lease Payment (City)	-	-	-	-	-
Non-Operating Revenues (Expenses)	68,260	56,546	431,585	11,714	(363,325)
<b>Cash Available For Debt Service</b>	<b>817,029</b>	<b>(136,194)</b>	<b>592,228</b>	<b>953,223</b>	<b>224,801</b>
Interest Paid (Pro-rated)	14,674	14,674	35,952	-	(21,278)
Debt Retirement (Principal Payments) (Pro-rated)	166,736	166,736	39,502	-	127,234
<b>Total Debt Service</b>	<b>181,410</b>	<b>181,410</b>	<b>75,454</b>	<b>-</b>	<b>105,957</b>
<b>Debt Service Ratio</b>	<b>4.50</b>	<b>(0.75)</b>	<b>7.85</b>	<b>5.25</b>	<b>(3.35)</b>

4,702,038	5,055,230	4,604,053	(353,193)	97,984
(3,278,200)	(4,308,507)	(4,051,481)	1,030,308	773,281
107,085	5,496	129,688	101,589	(22,603)
-	-	-	-	-
136,100	176,972	645,902	(40,872)	(509,803)
<b>1,667,023</b>	<b>929,190</b>	<b>1,328,163</b>	<b>737,833</b>	<b>338,861</b>
44,023	44,023	107,856	-	(63,833)
500,208	500,208	118,505	-	381,703
<b>544,231</b>	<b>544,231</b>	<b>226,361</b>	<b>-</b>	<b>317,870</b>
<b>3.06</b>	<b>1.71</b>	<b>5.87</b>	<b>1.36</b>	<b>(2.80)</b>

20,962,747	20,962,747	18,642,783	-	2,319,964
(18,014,274)	(18,014,274)	(15,196,007)	-	(2,818,267)
59,260	59,260	1,224,737	-	(1,165,477)
-	-	-	-	-
1,696,889	1,696,889	1,744,559	-	(47,670)
<b>4,704,622</b>	<b>4,704,622</b>	<b>6,416,073</b>	<b>-</b>	<b>(1,711,450)</b>
176,092	176,093	431,424	(1)	(255,332)
2,000,831	2,000,831	474,019	0	1,526,812
<b>2,176,923</b>	<b>2,176,924</b>	<b>905,443</b>	<b>(1)</b>	<b>1,271,480</b>
<b>2.16</b>	<b>2.16</b>	<b>7.09</b>	<b>0.00</b>	<b>(4.92)</b>

LEHIGH COUNTY AUTHORITY  
VARIANCE ANALYSIS - YTD  
For the Period Ended March 31, 2026 (as of 04-9-26)

Suburban - Wastewater				
STATEMENTS OF ACTIVITIES	Actual	Q1 FC	FC Var	Comments
<b>Operating Revenues:</b>				
User Charges	4,702,038	5,055,230	(353,193)	
Connection & System Charges	136,025	176,870	(40,846)	
Other Miscellaneous Revenues	75	102	(27)	
<b>Total Operating Revenues</b>	<b>4,838,137</b>	<b>5,232,202</b>	<b>(394,065)</b>	<b>Lower user charges &amp; lower tapping fees</b>
<b>Operating Expenses:</b>				
Personnel	158,089	749,916	591,827	
Shared Services - General & Administrative	28,294	135,514	107,219	
Utilities	78,795	131,478	52,683	
Materials and Supplies	64,174	123,732	59,557	
Miscellaneous Services	1,732,995	1,773,242	40,247	
Treatment and Transportation	1,214,598	1,394,626	180,029	
Depreciation and Amortization	1,749,041	1,560,177	(188,863)	
Major Maintenance Expenses	-	-	-	
Other Miscellaneous	1,254	-	(1,254)	
<b>Total Operating Expenses</b>	<b>5,027,240</b>	<b>5,868,685</b>	<b>841,444</b>	<b>Lower discretionary spending and lower treatment &amp; transportation</b>
<b>Net Operating Profit</b>	<b>(189,103)</b>	<b>(636,482)</b>	<b>447,380</b>	<b>Lower operating expenses partially offset by lower operating revenues</b>
<b>Non-Operating Income (Expense)</b>				
Interest Income	107,085	5,496	101,589	
Interest (Expense)	(150,201)	(44,942)	(105,258)	
Other Miscellaneous	-	-	-	
<b>Net Non-Operating Income (Expense)</b>	<b>(43,115)</b>	<b>(39,446)</b>	<b>(3,669)</b>	
<b>Net Income (Loss)</b>	<b>(232,218)</b>	<b>(675,929)</b>	<b>443,711</b>	<b>Higher net operating income</b>
<b>CASH FLOW STATEMENT</b>				
<b>Cash Flows From Operating Activities</b>				
Operating Revenues	4,838,137	5,232,202	(394,065)	
Operating Expenses (ex D&A)	(3,278,200)	(4,308,507)	1,030,308	
Non-Cash Working Capital Changes	(206,800)	(206,830)	30	
<b>Net Cash Provided by (Used in) Operating Activities</b>	<b>1,353,138</b>	<b>716,865</b>	<b>636,273</b>	<b>Higher net operating income</b>
<b>Cash Flows From Financing Activities</b>				
Capital Contributions	-	-	-	
Proceeds New Borrowing	-	-	-	
Interest Payments	(16,728)	(19,288)	2,560	
Principal Payments	(119,942)	(117,381)	(2,561)	
<b>Net Cash Provided by (Used in) Financing Activities</b>	<b>(136,670)</b>	<b>(136,669)</b>	<b>(1)</b>	
<b>Cash Flows from Capital and Related Activities</b>				
Non-Operating Income (Expenses)	-	-	-	
Capital Expenditures, net	(765,299)	(766,220)	921	
<b>Net Cash Provided By (Used In) Capital and Related Activities</b>	<b>(765,299)</b>	<b>(766,220)</b>	<b>921</b>	
<b>Cash Flows From Investing Activities</b>				
Investments Converting To Cash	494,000	-	494,000	
Purchased Investments	(245,000)	-	(245,000)	
Interest Income	107,085	5,496	101,589	
<b>Net Cash Provided By (Used In) Investing Activities</b>	<b>356,085</b>	<b>5,496</b>	<b>350,589</b>	<b>Favorable investment activity &amp; higher interest income</b>
<b>FUND NET CASH FLOWS</b>	<b>807,254</b>	<b>(180,528)</b>	<b>987,782</b>	<b>Higher cash from operations along with favorable investing activity &amp; higher interest income</b>

LEHIGH COUNTY AUTHORITY  
 FINANCIAL STATEMENTS - CITY DIVISION  
 For the Period Ended March 31, 2026 (as of 04-9-26)

STATEMENTS OF ACTIVITIES	Month					City Division Year To Date					Full Year				
	Actual	Q1 FC	Prior Year	FC Var	PY Var	Actual	Q1 FC	Prior Year	FC Var	PY Var	Q1 FC	Budget	Prior Year	Bud Var	PY Var
	<b>Operating Revenues:</b>														
User Charges	5,662,421	5,237,441	4,712,385	424,980	950,036	16,250,166	14,692,653	14,157,577	1,557,513	2,092,589	65,371,290	65,371,290	59,009,172	-	6,362,118
Connection & System Charges	257,679	131,255	207,801	126,424	49,878	3,907,183	270,532	797,465	3,636,651	3,109,718	1,964,250	1,964,250	7,755,143	-	(5,790,893)
Other Miscellaneous Revenues	2,430	483	4,155	1,947	(1,725)	17,930	5,019	10,320	12,911	7,610	52,905	52,905	90,523	-	(37,618)
<b>Total Operating Revenues</b>	<b>5,922,530</b>	<b>5,369,180</b>	<b>4,924,341</b>	<b>553,350</b>	<b>998,189</b>	<b>20,175,279</b>	<b>14,968,204</b>	<b>14,965,363</b>	<b>5,207,075</b>	<b>5,209,916</b>	<b>67,388,445</b>	<b>67,388,445</b>	<b>66,854,839</b>	<b>-</b>	<b>533,607</b>
<b>Operating Expenses:</b>															
Personnel	1,211,426	1,566,665	1,007,438	355,239	(203,987)	4,756,945	4,591,392	3,110,636	(165,553)	(1,646,309)	14,720,010	14,720,010	14,616,873	-	(103,138)
Shared Services - General & Administrative	221,902	356,235	241,102	134,332	19,200	958,318	1,087,802	688,452	129,484	(269,867)	3,274,508	3,274,508	2,877,488	0	(397,020)
Utilities	127,433	189,522	280,512	62,089	153,079	537,943	591,772	610,921	53,829	72,978	2,143,389	2,143,389	2,124,304	-	(19,085)
Materials and Supplies	310,232	313,680	282,379	3,448	(27,853)	703,378	833,673	731,560	130,296	28,183	3,924,700	3,924,700	3,119,861	-	(804,839)
Miscellaneous Services	409,535	91,355	112,075	(318,180)	(297,460)	787,098	415,888	303,227	(371,210)	(483,872)	3,170,615	3,170,615	2,540,388	-	(630,227)
Treatment and Transportation	-	-	-	-	-	-	-	-	-	-	12,000	12,000	12,865	-	865
Depreciation and Amortization	603,258	529,481	542,413	(73,776)	(60,844)	1,809,773	1,588,444	1,627,240	(221,329)	(182,533)	7,308,409	7,308,409	7,514,735	(0)	206,326
Major Maintenance Expenses	-	-	-	-	-	-	-	-	-	-	4,100,000	4,100,000	-	-	(4,100,000)
Other Miscellaneous	-	-	-	-	-	-	-	-	-	-	-	-	7,563,375	-	7,563,375
<b>Total Operating Expenses</b>	<b>2,883,786</b>	<b>3,046,938</b>	<b>2,465,919</b>	<b>163,152</b>	<b>(417,867)</b>	<b>9,553,455</b>	<b>9,108,971</b>	<b>7,072,036</b>	<b>(444,484)</b>	<b>(2,481,419)</b>	<b>38,653,631</b>	<b>38,653,631</b>	<b>40,369,888</b>	<b>(0)</b>	<b>1,716,257</b>
<b>Net Operating Profit</b>	<b>3,038,744</b>	<b>2,322,242</b>	<b>2,458,422</b>	<b>716,502</b>	<b>580,322</b>	<b>10,621,824</b>	<b>5,859,233</b>	<b>7,893,327</b>	<b>4,762,591</b>	<b>2,728,497</b>	<b>28,734,814</b>	<b>28,734,814</b>	<b>26,484,951</b>	<b>(0)</b>	<b>2,249,864</b>
<b>Non-Operating Income (Expense)</b>															
Interest Income	345,444	66,013	506,705	279,431	(161,261)	983,783	206,883	1,380,016	776,901	(396,233)	1,432,632	1,432,632	5,481,265	-	(4,048,633)
Interest (Expense)	(1,613,352)	(1,814,266)	(1,478,338)	200,914	(135,014)	(4,840,070)	(5,442,816)	(4,522,924)	602,746	(317,145)	(21,236,805)	(21,236,805)	(18,843,110)	-	(2,393,695)
Other Miscellaneous	-	-	-	-	-	-	-	-	-	-	6,610,000	6,610,000	-	-	6,610,000
<b>Net Non-Operating Income (Expense)</b>	<b>(1,267,908)</b>	<b>(1,748,253)</b>	<b>(971,633)</b>	<b>480,345</b>	<b>(296,275)</b>	<b>(3,856,286)</b>	<b>(5,235,933)</b>	<b>(3,142,908)</b>	<b>1,379,647</b>	<b>(713,378)</b>	<b>(13,194,173)</b>	<b>(13,194,173)</b>	<b>(13,361,845)</b>	<b>-</b>	<b>167,672</b>
<b>Net Income (Loss)</b>	<b>1,770,836</b>	<b>573,989</b>	<b>1,486,789</b>	<b>1,196,847</b>	<b>284,047</b>	<b>6,765,538</b>	<b>623,300</b>	<b>4,750,419</b>	<b>6,142,238</b>	<b>2,015,119</b>	<b>15,540,642</b>	<b>15,540,642</b>	<b>13,123,106</b>	<b>(0)</b>	<b>2,417,536</b>
<b>CASH FLOW STATEMENT</b>															
<b>Cash Flows From Operating Activities</b>															
Operating Revenues	5,922,530	5,369,180	4,924,341	553,350	998,189	20,175,279	14,968,204	14,965,363	5,207,075	5,209,916	67,388,445	67,388,445	66,854,839	-	533,607
Operating Expenses (ex D&A)	(2,280,528)	(2,067,040)	(1,923,506)	(213,488)	(357,022)	(7,743,682)	(6,833,868)	(5,444,795)	(909,814)	(2,298,886)	(27,245,222)	(27,245,222)	(32,855,152)	-	5,609,930
Non-Cash Working Capital Changes	(52,789)	(196,299)	290,029	143,510	(342,818)	(4,116,208)	(4,116,202)	341,305	(6)	(4,457,513)	(0)	(0)	11,830,288	0	(11,830,288)
<b>Net Cash Provided by (Used in) Operating Activities</b>	<b>3,589,213</b>	<b>3,105,840</b>	<b>3,290,865</b>	<b>483,372</b>	<b>298,348</b>	<b>8,315,389</b>	<b>4,018,134</b>	<b>9,861,872</b>	<b>4,297,255</b>	<b>(1,546,483)</b>	<b>40,143,223</b>	<b>40,143,223</b>	<b>45,829,974</b>	<b>0</b>	<b>(5,686,750)</b>
<b>Cash Flows From Financing Activities</b>															
Capital Contributions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds New Borrowing	-	-	-	-	-	-	-	-	-	-	5,660,930	5,660,930	-	-	5,660,930
Interest Payments	(1,248,806)	(477,222)	(1,056)	(771,584)	(1,247,750)	(1,250,825)	(487,856)	(3,181)	(762,970)	(1,247,644)	(12,000,000)	(12,000,000)	(13,692,316)	-	1,692,316
Principal Payments	(5,356)	(241,768)	(564,937)	236,412	559,581	(15,948)	(247,156)	(575,423)	231,208	559,476	(6,079,392)	(6,079,392)	(5,530,542)	-	(548,850)
<b>Net Cash Provided by (Used in) Financing Activities</b>	<b>(1,254,162)</b>	<b>(718,990)</b>	<b>(565,993)</b>	<b>(535,171)</b>	<b>(688,169)</b>	<b>(1,266,773)</b>	<b>(735,011)</b>	<b>(578,605)</b>	<b>(531,762)</b>	<b>(688,168)</b>	<b>(12,418,462)</b>	<b>(12,418,462)</b>	<b>(19,222,859)</b>	<b>-</b>	<b>6,804,397</b>
<b>Cash Flows from Capital and Related Activities</b>															
Annual Lease Payment	(576,477)	(691,745)	-	115,268	(576,477)	(576,477)	(691,745)	-	115,268	(576,477)	(1,383,491)	(1,383,491)	(1,119,374)	-	(264,117)
Non-Operating Income (Expenses)	-	-	-	-	-	6,610,000	6,610,000	-	-	-	6,610,000	6,610,000	-	-	6,610,000
Capital Expenditures, net	(2,654,746)	(2,568,902)	(3,783,544)	(85,844)	1,128,798	(7,531,503)	(7,589,789)	(5,768,010)	58,286	(1,763,493)	(50,692,000)	(50,692,000)	(34,440,430)	-	(16,251,570)
<b>Net Cash Provided by (Used in) Capital and Related Activities</b>	<b>(3,231,223)</b>	<b>(3,260,647)</b>	<b>(3,783,544)</b>	<b>29,424</b>	<b>552,321</b>	<b>(8,107,980)</b>	<b>(8,281,534)</b>	<b>(5,768,010)</b>	<b>173,554</b>	<b>(2,339,970)</b>	<b>(45,465,491)</b>	<b>(45,465,491)</b>	<b>(35,559,804)</b>	<b>-</b>	<b>(9,905,687)</b>
<b>Cash Flows From Investing Activities</b>															
Investments Converting To Cash	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Purchased Investments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Income	345,444	66,013	506,705	279,431	(161,261)	983,783	206,883	1,380,016	776,901	(396,233)	1,432,632	1,432,632	5,481,265	-	(4,048,633)
<b>Net Cash Provided by (Used in) Investing Activities</b>	<b>345,444</b>	<b>66,013</b>	<b>506,705</b>	<b>279,431</b>	<b>(161,261)</b>	<b>983,783</b>	<b>206,883</b>	<b>1,380,016</b>	<b>776,901</b>	<b>(396,233)</b>	<b>1,432,632</b>	<b>1,432,632</b>	<b>5,481,265</b>	<b>-</b>	<b>(4,048,633)</b>
<b>FUND NET CASH FLOWS</b>	<b>(550,728)</b>	<b>(807,784)</b>	<b>(551,967)</b>	<b>257,056</b>	<b>1,239</b>	<b>(75,581)</b>	<b>(4,791,528)</b>	<b>4,895,273</b>	<b>4,715,948</b>	<b>(4,970,854)</b>	<b>(16,308,098)</b>	<b>(16,308,098)</b>	<b>(3,471,424)</b>	<b>0</b>	<b>(12,836,673)</b>
<b>DEBT SERVICE RATIO</b>															
<b>Debt Service Ratio (Indenture Based)</b>															
User Charges	5,662,421	5,237,441	4,712,385	424,980	950,036	16,250,166	14,692,653	14,157,577	1,557,513	2,092,589	65,371,290	65,371,290	62,509,172	-	2,862,118
Operating Expenses (Cash Based)	(2,280,528)	(2,517,457)	(1,923,506)	236,928	(357,022)	(7,743,682)	(7,520,527)	(5,444,795)	(223,155)	(2,298,886)	(27,245,222)	(27,245,222)	(32,855,152)	-	5,609,930
Interest Income	345,444	66,013	506,705	279,431	(161,261)	983,783	206,883	1,380,016	776,901	(396,233)	1,432,632	1,432,632	5,481,265	-	(4,048,633)
Annual Lease Payment (City)	(115,291)	(115,291)	(93,281)	-	(22,010)	(345,873)	(345,873)	(279,844)	-	(66,029)	(1,383,491)	(1,383,491)	(1,119,374)	-	(264,117)
Non-Operating Revenues (Expenses)	260,109	131,738	211,956	128,370	48,153	3,925,113	275,551	807,785	3,649,562	3,117,328	1,399,036	1,399,036	4,345,667	-	(2,946,631)
<b>Cash Available For Debt Service</b>	<b>3,872,155</b>	<b>2,802,446</b>	<b>3,414,259</b>	<b>1,069,709</b>	<b>457,896</b>	<b>13,069,508</b>	<b>7,308,687</b>	<b>10,620,740</b>	<b>5,760,821</b>	<b>2,448,768</b>	<b>39,574,245</b>	<b>39,574,245</b>	<b>38,361,577</b>	<b>-</b>	<b>1,212,668</b>
Interest Paid	1,000,000	1,000,000	1,141,026	-	(141,026)	3,000,000	3,000,000	3,423,079	-	(423,079)	12,000,000	12,000,000	13,692,316	-	(1,692,316)
Debt Retirement (Principal Payments)	506,616	506,616	460,879	-	45,737	1,519,848	1,519,848	1,382,636	-	137,212	6,079,392	6,079,392	5,530,542	-	548,850
<b>Total Debt Service</b>	<b>1,506,616</b>	<b>1,506,616</b>	<b>1,601,905</b>	<b>-</b>	<b>(95,289)</b>	<b>4,519,848</b>	<b>4,519,848</b>	<b>4,805,715</b>	<b>-</b>	<b>(285,867)</b>	<b>18,079,392</b>	<b>18,079,392</b>	<b>19,222,859</b>	<b>-</b>	<b>(1,143,467)</b>
<b>Debt Service Ratio</b>	<b>2.57</b>	<b>1.86</b>	<b>2.13</b>	<b>0.71</b>	<b>0.44</b>	<b>2.89</b>	<b>1.62</b>	<b>2.21</b>	<b>1.27</b>	<b>0.68</b>	<b>2.19</b>	<b>2.19</b>	<b>2.00</b>	<b>-</b>	<b>0.19</b>

LEHIGH COUNTY AUTHORITY  
 VARIANCE ANALYSIS - YTD  
 For the Period Ended March 31, 2026 (as of 04-9-26)

**STATEMENTS OF ACTIVITIES**

**Operating Revenues:**

	Actual	Q1 FC	FC Var	Comments
User Charges				
Connection & System Charges	16,250,166	14,692,653	1,557,513	Higher industrial/commercial revenues, higher municipal revenues, and higher Water sales to Suburban
Other Miscellaneous Revenues	3,907,183	270,532	3,636,651	Higher direct project reimbursement
	17,930	5,019	12,911	
<b>Total Operating Revenues</b>	<b>20,175,279</b>	<b>14,968,204</b>	<b>5,207,075</b>	<b>Higher user charges and higher system charges</b>

**Operating Expenses:**

Personnel	4,756,945	4,591,392	(165,553)	
Shared Services - General & Administrative	958,318	1,087,802	129,484	
Utilities	537,943	591,772	53,829	
Materials and Supplies	703,378	833,673	130,296	
Miscellaneous Services	787,098	415,888	(371,210)	
Treatment and Transportation	-	-	-	
Depreciation and Amortization	1,809,773	1,588,444	(221,329)	
Major Maintenance Expenses	-	-	-	
Other Miscellaneous	-	-	-	
<b>Total Operating Expenses</b>	<b>9,553,455</b>	<b>9,108,971</b>	<b>(444,484)</b>	<b>Higher personnel costs and higher services along with higher D&amp;A</b>

**Net Operating Profit**

	<b>10,621,824</b>	<b>5,859,233</b>	<b>4,762,591</b>	<b>Higher operating revenues partially offset by higher operating expenses</b>
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**Non-Operating Income (Expense)**

Interest Income	983,783	206,883	776,901	
Interest (Expense)	(4,840,070)	(5,442,816)	602,746	
Other Miscellaneous	-	-	-	
<b>Net Non-Operating Income (Expense)</b>	<b>(3,856,286)</b>	<b>(5,235,933)</b>	<b>1,379,647</b>	<b>Higher interest income and lower interest expense</b>

**Net Income (Loss)**

	<b>6,765,538</b>	<b>623,300</b>	<b>6,142,238</b>	<b>Higher net operating income aided by favorable financial activity</b>
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**CASH FLOW STATEMENT**

**Cash Flows From Operating Activities**

Operating Revenues	20,175,279	14,968,204	5,207,075	
Operating Expenses (ex D&A)	(7,743,682)	(6,833,868)	(909,814)	
Non-Cash Working Capital Changes	(4,116,208)	(4,116,202)	(6)	
<b>Net Cash Provided by (Used in) Operating Activities</b>	<b>8,315,389</b>	<b>4,018,134</b>	<b>4,297,255</b>	<b>Higher net operating income</b>

**Cash Flows From Financing Activities**

Capital Contributions	-	-	-	
Proceeds New Borrowing	-	-	-	
Interest Payments	(1,250,825)	(487,856)	(762,970)	
Principal Payments	(15,948)	(247,156)	231,208	
<b>Net Cash Provided by (Used in) Financing Activities</b>	<b>(1,266,773)</b>	<b>(735,011)</b>	<b>(531,762)</b>	<b>Higher interest payments</b>

**Cash Flows from Capital and Related Activities**

Non-Operating Income (Expenses)	-	-	-	
Capital Expenditures, net	(7,531,503)	(7,589,789)	58,286	
<b>Net Cash Provided By (Used In) Capital and Related Activities</b>	<b>(7,531,503)</b>	<b>(7,589,789)</b>	<b>58,286</b>	

**Cash Flows From Investing Activities**

Investments Converting To Cash	-	-	-	
Purchased Investments	-	-	-	
Interest Income	983,783	206,883	776,901	
<b>Net Cash Provided By (Used In) Investing Activities</b>	<b>983,783</b>	<b>206,883</b>	<b>776,901</b>	<b>Higher interest income</b>

**FUND NET CASH FLOWS**

	<b>500,896</b>	<b>(4,099,783)</b>	<b>4,600,680</b>	<b>Higher cash from operations a little bit offset by higher interest payments</b>
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City Division

**CERTIFICATES OF DEPOSIT**

March 2026

Fund	Bank	Location	Gross Amount	Date of Purchase	Date Due	Net Rate %
WW Capac	Live Oak	Wilmington, NC	245,000	3/13/26	3/13/28	3.700
LLRI	Celtic Bank	Salt Lake City, UT	245,000	3/10/26	3/10/28	3.650
Consolidated	Optum Bank	Draper, UT	245,000	3/11/2026	3/13/2028	3.600

## DEVELOPMENT ACTIVITY

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

6681 Snowdrift Road, Warehouse expansion, water, UMT  
Glenlivet Drive West Main extension and subdivision UMT  
Grant Street Townes, 18 Townhouse, WT  
Fallbrooke Residential Subdivision, 90 sf residential units, UMT  
Fields at Twin Run 78 Townhomes UMiT  
Macungie Crossings Unit 2 6 commercial units, LMT  
Madison Village at Penn's View, 66 manufactured homes, 1 lot, water and sewer, LynnT  
Mertztown Residential Subdivision, 128 Townhomes, 272 Single Homes, LMT  
Trexler Point (Towns at Schaefer Run) 128 Townhouses UMT  
Upper Macungie Community Center UMT commercial lot, water and Main Extension  
Wrenfield Townhouses 98 Townhomes UMT  
Kings Buisness Park 4873 PA RT 873, Mixed use, NWT  
Carriage East Residential Development, 11 residential units, (sfd), UMT  
7150 Hamilton Blvd, Bank,UMT

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

7649 Penn Drive, Warehouse expansion, water, UMT  
405 Nestle Way Blue Triton Trailer Enterance, Warehouse, UMT  
110 PA Route 100, Lehigh Valley West 57, Warehouse, UMT  
1321 Rising Sun Road, 110 Single family homes, Sewer NWT  
1431 and 1550 Nursery Street warehouse and 36 Townhomes, UMT  
1470 Brookside Road, 9 Single Family Homes, LMT  
2024 Elbow lane single home,LMT  
2619 Grove Street Sewer Main Extension,Washington Township  
2766 Route 100, Warehouse, Watermain extention, Lowhill Township  
3121 RT 309 NWT Nexus 78, Watermain Extension, Warehouse, North Whitehall  
3500 Brookside Road, Indian Creek- 26 Single family homes-Main extension, LMT  
3952 Independence Drive,NW  
4054 Chestnut Street Single connection,Umilford  
6045 Reppert Lane 24 Town Homes, UMT  
Valley at Indian Creek 3510 Macungie Road 22 Single family homes-LMT  
5329-5347-5357 Hamilton Blvd., 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  
Fields at Emmaus 78 Town Homes, UMT  
Grant Way Building Expansion,UMT  
Iron Run Estates 58 Single Home, LMT  
Hamilton Square 2 Commercial Lots LMT  
Heidelberg Heights 10 Townhouses water ext on lot septic, HH  
Krocks Road Mixed use development  
Lehigh Valley Town Center, Mixed use development, UMT  
Lehigh Valley West 57, Warehouse, UMT  
Ridings at Parkland Phase 2, 44 Single Homes. NWT  
Schoeneck Road, Lot 1, 1 lot, warehouse, LMT  
Spring Creek Lot 12 1 Commercial Lot,LMT  
Western Lehigh Development 2 Commercial Lots, LMT  
Twin Ponds 8739 Hamilton Blvd 22 Apts and 1 Daycare UMT  
PA Turnpike Lehigh Valley Interchange, UMT, Removal of domestic line.  
V Parkland 9230 Long Lane, 16 Single family homes, UMT.  
Western Lehigh Development 2 Commercial Lots, LMT  
RT 100 Commercial Development, LMT  
BBC ASRS Manufacturing, UMT  
Woodmere Estates Development, UMT/LMT 100 single homes  
Sunet Orchard Development, 203 townhomes, UMT

**DEVELOPMENT ACTIVITY**

7050 Snow Drift Rd Eastern Lift Warehouse Expansion  
Cove at Millbrook, 15 single family homes, LMT  
NP Land Holdings, 1 lot Warehouse, LMT  
Sheetz S.R 100, Gas Station, UMT  
Hardt Preserve Subdivision, 26 single homes, LMT  
6048 Hamilton Blvd, Dental Clinic, LMT  
7Brew, Drive Thru Coffee, UMT  
121 Nestle Way, 1 lot warehouse, UMT  
5316 Oakview Drive, 1 lot office/ garage, UMT  
5332 PA RT 873, 1 lot Daycare, NWT  
Nursery street Townhomes, Townhouses 31, UMT  
Hilltop Gardens, Mixed Use Commercial, Upper Millford  
UMT Fire Station, Fire House, UMT  
Project Kennedy, Pharmaceutical Manufacturing Complex, UMT

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

			<b>GPD</b>
249 N Front St Mixed Use Development (Revised 2)	249 N Front St	Allentown	20165
Borough of Emmaus Waterworks PFAS Treatment	101 Klins Lane	Emmaus	203
Park Lofts Mixed-Use Development	115 Riverside Dr	Allentown	60576
RS Residences Mixed-Use Development	51 N Front St	Allentown	50830
216 W Allen St Mixed-Use Development	216 W Allen St	Allentown	51095
181-183 Ridge St	181-183 Ridge St	Emmaus	840
1 Center Square (Revision)	702 Hamilton St	Allentown	-2855
1047 Hamilton (Revision)	1047 W Hamilton	Allentown	93
Residential	2946 Mosser Dr	SWT	223
Sunset Orchard	6748 Ruppville Rd	U Mac	45269
216 S 2nd St	216 S 2nd St	Emmaus	2520
1012-1014 S Hall St	1012-1014 S Hall St	Allentown	476
1418-1420 Walnut St	1418-1420 Walnut St	Allentown	1190
Xtra Lease Office and Maintenance Building	5316 Oak View Dr	U Mac	200

YTD Total Incidents

**21**



Employee Related Incidents

**13**



Vehicle Incidents

**8**



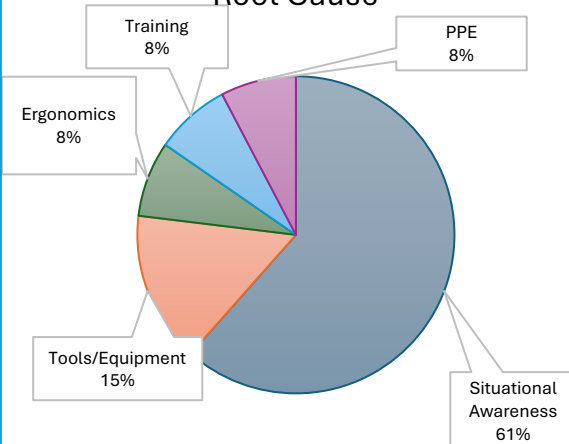
Days Since Last Recordable Incident

**69**

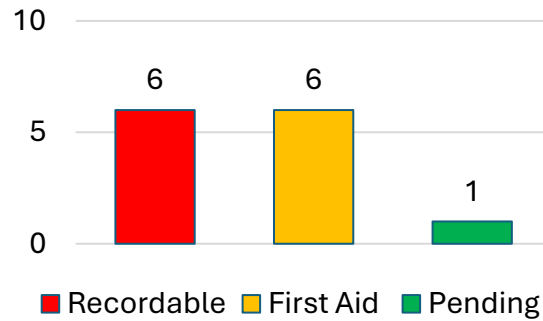


Last Recordable Incident 02-10-2026

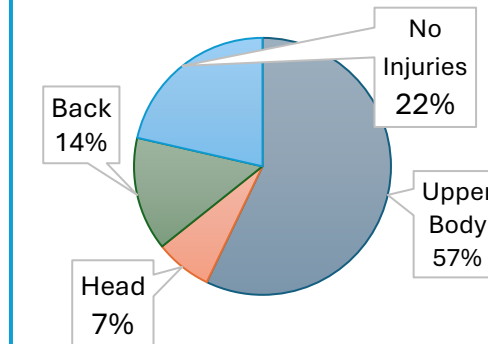
Root Cause



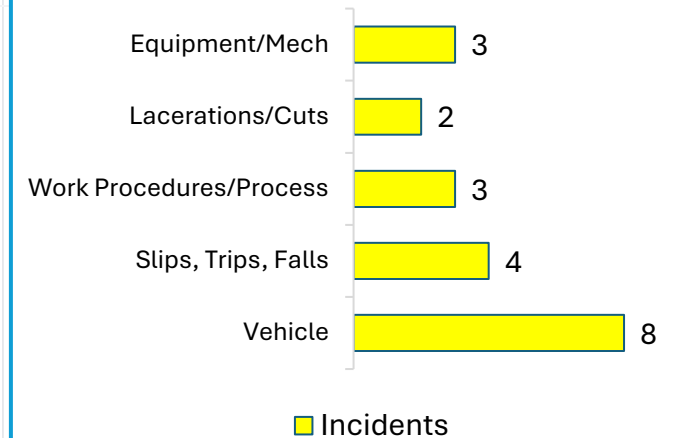
Severity Classification



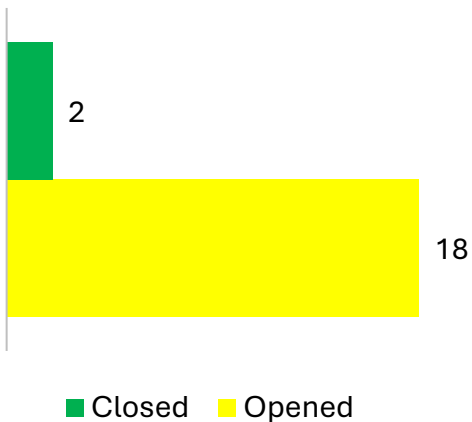
Incident by Body Part



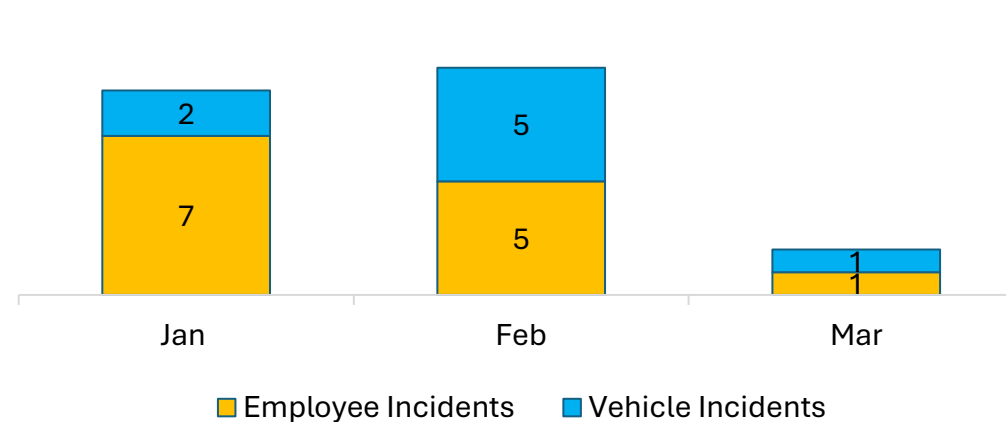
Incident Breakdown by Category



Corrective Actions



Incidents by Month





# 2026 MONTHLY INCIDENT REPORT – Employee Incidents

Incident Summary

Report Date  
April 20<sup>th</sup>, 2026

Incident Month  
✔ **March**


DATE	DESCRIPTION	SEVERITY	ROOT CAUSE	CORRECTIVE SUMMARY
03/09/2026	An employee sustained an injury to their ankle while performing unplanned maintenance to remove a broken section of a scraper arm in a basin	First Aid	Situational Awareness	<ul style="list-style-type: none"><li>Retrain all maintenance personnel on the Lockout/Tagout (LOTO) policy, emphasizing that LOTO applies to <i>mechanical tension/torque</i>, gravity, and hydraulics, not just electrical sources.</li></ul>



# 2026 MONTHLY INCIDENT REPORT – Vehicle Incidents

Incident Summary

Report Date  
**April 20<sup>th</sup>, 2026**

Incident Month  
 **March**

DATE	CATEGORY	DESCRIPTION
3/18/2026	Vehicle Incident	An employee was driving vehicle # 7091 (large jet truck) and hit low hanging cable wire that was believed to be old/abandoned, while attempting to pass underneath.

Lehigh County Authority

System Operations Review - March 2026

Presented: April 27, 2026

<u>Critical Activities</u>	<u>System</u>	<u>Description</u>	<u>Mar-26</u>	<u>2026 Totals</u>	<u>2025 Totals</u>	<u>Permit</u>
			<u>Daily Avg (MGD)</u>	<u>Daily Avg (MGD)</u>	<u>Daily Avg (MGD)</u>	<u>Daily Max (MGD)</u>
Water Production	Allentown	Total	22.69	23.36	22.97	39.0
		Schantz Spring	6.84	6.18	6.46	9.0
		Crystal Spring	3.89	3.88	3.88	4.0
		Little Lehigh Creek	9.40	9.60	12.05	30.0
		Lehigh River	2.83	3.79	0.57	28.0
	Central Lehigh	Total	11.09	10.82	11.38	19.04 MGD Avg
		Feed from Allentown	7.42	7.32	7.25	7.0 MGD Avg 10.5 MGD Max
		Well Production (CLD)	3.67	3.49	4.11	8.54 MGD Avg
		Sum of all (12) other Suburban Water Systems	0.12	0.13	0.15	1.71 Sum of all wells
Wastewater Treatment	Kline's Island	35.76	32.71	31.83	40.0	
	Pretreatment Plant	5.09	4.67	4.68	5.75 (design capacity)	
	Sum of all (5) other Suburban WW Systems	0.26	0.21	0.18	0.36	
			<u>Mar-26</u>	<u>2026 Totals</u>	<u>2025 Totals</u>	<u>2024 Totals</u>
Precipitation Totals (inches)			5.73	9.47	37.51	41.88
Compliance Reports Submitted to Allentown			1	49	283	278
Notices of Violation (NOVs)	(Allentown + Suburban)		0	1	5	5
Sanitary Sewer Overflows (SSOs)/Bypasses	(Allentown + Suburban)		1	1	9	17
Main Breaks Repaired	Allentown		1	25	16	27
	Suburban		0	1	16	14
Customer Service Phone Inquiries	(Allentown + Suburban)		1052	3078	13,476	16,690
Water Shutoffs for Non-Payment	(Allentown + Suburban)		309	387	2,178	2,010
Emergency Declarations	Allentown		0	2 @ 15,373	2 @ 15,373	2 @ 228,181.55
	Suburban		0	1 @ \$318,754	1 @ \$318,754	1 @ 56, 662.50
<b><u>Significant Repairs/Upgrades:</u></b>						
<b><u>Description of Non-Compliance Events:</u></b>						
On March 6, 2026, Heidelberg Heights WWTP experienced a bypass event resulting from a storm that produced 1.60" of rainfall. The bypass began on March 6 and ended on March 9, with a total discharge of 199,188 gallons.						
<b><u>Other:</u></b>						
Note - The Little Lehigh withdrawal was incorrectly reported as 5.18 MGD for February 2026. The correct flow was 9.80 MGD.						

Lehigh County Authority  
System Operations Review - March 2026  
Presented: April 27, 2026

<u>Critical Activities</u>	<u>System</u>	<u>Description</u>	<u>Mar-26</u>	<u>2026 Totals</u>	<u>2025 Totals</u>
<b>Wastewater Compliance</b>	Allentown	Bypass	0	0	2
		Bypass Volume	0	0	111,496
		Permit Exceedances	0	0	0
		Sanitary Sewer Overflows	0	0	5
		COA Issued NOVs	0	0	1
		Regulatory Agency issued NOVs	0	0	2
	Arcadia	Bypass	0	0	0
		Bypass Volume	0	0	0
		Permit Exceedances	0	2	1
		Sanitary Sewer Overflows	0	0	0
		NOVs	0	0	0
	Heidelberg Heights	Bypass	1	1	2
		Bypass Volume	199,188	199,188	271,192
		Permit Exceedances	0	0	1
		Sanitary Sewer Overflows	0	0	0
		NOVs	0	0	0
	Lynn	Bypass	0	0	0
		Bypass Volume	0	0	0
		Permit Exceedances	0	0	2
		Sanitary Sewer Overflows	0	0	0
		NOVs	0	0	0
	Sand Spring	Bypass	0	0	0
		Bypass Volume	0	0	0
		Permit Exceedances	3	8	18
		Sanitary Sewer Overflows	0	0	0
		NOVs	0	1	0
	Wynnewood	Bypass	0	0	0
		Bypass Volume	0	0	0
		Permit Exceedances	2	3	0
		Sanitary Sewer Overflows	0	0	0
NOVs		0	0	0	
<b>Water Compliance</b>	Allentown	Boil Water Advisories	0	0	2
	Central Lehigh	Boil Water Advisories	0	0	0
	Suburban Water Systems	Boil Water Advisories	0	0	1