



**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 17, 2023

### BOARD MEETING AGENDA – April 24, 2023 – 12:00 p.m.

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

#### 1. Call to Order

- **NOTICE OF MEETING RECORDINGS**

Meetings of Lehigh County Authority's Board of Directors that are held at LCA's Main Office at 1053 Spruce Road, Wescosville, PA, may be recorded for viewing online at [lehighcountauthority.org](http://lehighcountauthority.org). Recordings of LCA meetings are for public convenience and internal use only and are not considered as minutes for the meeting being recorded, nor are they part of public record. Recordings may be retained or destroyed at LCA's discretion.

- *Public Participation Sign-In Request*

#### 2. Review of Agenda / Executive Sessions

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

#### 3. Approval of Minutes

- *April 10, 2023 Board meeting minutes*

#### 4. Public Comments

#### 5. Action / Discussion Items:

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

- *Resolution No. 4-2023-1: Destruction of Authority Documents (Approval) (yellow) (digital Board packet, pages 6-8)*

##### **WATER**

##### **WASTEWATER**

- *KISS System Modeling – Final Alternatives Analysis (FAA) (Approval) (blue) (digital Board packet, pages 9-24)*
- *Kline's Island WWTP: Primary Digester No. 2 Cleaning and Rehabilitation Project (Approval) (green) (digital Board packet, pages 25-28)*

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

#### 7. Monthly Financial Review (2<sup>nd</sup> Board meeting per month) (digital Board packet, pages) – **March 2023 report will be sent separately.**

8. Monthly System Operations Overview (2<sup>nd</sup> Board meeting per month) (digital Board packet, pages 29-30) – **March 2023 report attached**
9. Staff Comments
10. Solicitor's Comments
11. Public Comments / Other Comments
12. Board Member Comments
13. Executive Sessions
14. Adjournment

UPCOMING BOARD MEETINGS		
May 8, 2023	May 22, 2023	June 12, 2023

#### 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 10, 2023**

The Regular Meeting of the Lehigh County Authority Board of Directors was called to order at 12:00 p.m. on Monday, April 10, 2023, Chairman Brian Nagle presiding. The meeting was hybrid via in-person and video and audio advanced communication technology ("ACT"), using the Zoom internet application, including telephone option. Each Board member and other attendees of the meeting were able to hear each other attendee and be heard by each other attendee. The public could also participate in the meeting in-person or via ACT, using the Zoom internet application, including telephone option. A Roll Call of Board members present was taken. Brian Nagle, Amir Famili, Linda Rosenfeld, Norma Cusick, Kevin Baker, Jeff Morgan, Sean Ziller, and Marc Grammes were present for Roll Call, and remained for the duration of the meeting.

Solicitor Michael Gaul of KingSpry was present along with Authority Staff, Liesel Gross, Ed Klein, Andrew Moore, Chris Moughan, Phil DePoe, Chuck Volk, Susan Sampson, Albert Capuzzi, Jason Peters and Lisa Miller.

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

#### **REVIEW OF AGENDA**

Liesel Gross announced that there are no changes or additions to the agenda, but there is a correction to one item on the agenda. An Executive Session is planned for after the regular meeting to discuss a personnel matter.

#### **APPROVAL OF MINUTES**

##### **March 27, 2023 Meeting Minutes**

On a motion by Linda Rosenfeld, seconded Norma Cusick, the Board approved the minutes of the March 27, 2023, Board meeting as written (7-0). Brian Nagle abstained.

#### **PUBLIC COMMENTS**

None.

Ted Lyons entered the meeting at 12:03 p.m.

##### **LCA Strategic Plan – 2023 Quarterly Progress Reporting**

Liesel Gross reviewed the 2022-2027 Strategic Plan quarterly progress report, highlighting key achievements in the areas of Asset Management, Process Improvement, Employee Engagement & Safety, Operational Excellence, and Water & Wastewater Capacity, as described in more detail in the report.

Ms. Gross reviewed the dashboard of key performance indicators (KPIs), noting that the number of year-to-date recordable injuries in the Safety section of the dashboard was incorrect as originally published. The Authority sustained two recordable injuries in 2023 thus far. An updated copy of the KPI dashboard was distributed to Board members in attendance and will be posted on the Authority's website.

Chairman Nagle inquired about the vacancies listed on the KPI dashboard, and Ms. Gross reviewed the Authority's current recruiting strategies and challenges. Sean Ziller asked about the anticipated

start for the work items in the report that were reported as “not started.” Ms. Gross reported on timing and prioritization of those items, which may also be delayed further depending on staff availability. There was some Board discussion about the Authority’s Remote Workplace Policy, which was formalized recently following nearly three years of more informal remote work arrangements due to the COVID-19 pandemic.

### **Suburban Division – Water Main Replacement Program – Cycles 7 & 8**

Jason Peters described the project that includes approximately 2.5 miles of water main replacement over a two-year period. While the Authority typically targets 1 mile of water main replacement per year in the Suburban Division, the additional half-mile of water main requested is necessary to allow the replacements to be constructed from roadway intersection to intersection. This will allow future replacements to be more easily constructed and minimize interruptions in service to customers. Mr. Peters explained the authorization requested, which is for design and bid phases of the work, using Gannett Fleming to complete the work after many years of successful projects.

Ted Lyons asked for a rough estimate of the cost per mile. Mr. Peters said the current estimate is \$2.2 million per mile, and he described various opportunities to reduce costs via interagency collaboration. There was some Board discussion regarding water leakage and the use of plastic pipes in certain developments.

On a motion by Linda Rosenfeld, seconded by Sean Ziller, the Board approved the Capital Project Authorization for the Design and Bid phase of Cycle 7 & 8 in the amount of \$283,000.00 which includes the Professional Services Authorization to Gannett Fleming, Inc. in the amount of \$208,000.00 (9-0)

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

Liesel Gross provided highlights of the April 2023 report, noting items that would be addressed at the next meeting in April. Ms. Gross also noted that projects listed as being in “project closeout” phase in the report will be removed from the next month’s report.

### **STAFF COMMENTS**

None.

### **SOLICITOR’S COMMENTS**

None.

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

None.

### **BOARD MEMBER COMMENTS**

Ted Lyons commented about the name plates and why they are no longer being used. Liesel Gross explained that they were not used during the COVID-19 pandemic when most meetings were held virtually. The name plates can be reimplemented for in-person meetings.

Chairman Nagle announced that he would be contacting Board members individually to discuss establishing various committees over the next month.

**EXECUTIVE SESSION**

Chairman Nagle announced an Executive Session would be held following the close of the meeting to discuss matters of personnel.

**ADJOURNMENT**

There being no further business, the Chairman adjourned the meeting at 12:35 p.m.

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Linda Rosenfeld  
Secretary

# RESOLUTION No. 4-2023-1

(Duly adopted 24 April 2023)

## **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 24th day of April, 2023.

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

⌘ ⌘

I, Michael A. Gaul, Esquire, of King, Spry, Herman Freund & Faul, LLC, Solicitor of Lehigh County Authority, do hereby certify that the foregoing is a true, correct and complete copy of a resolution which was duly adopted by the Authority at a public meeting of the Authority held on April 24, 2023, after notice thereof had been duly given as required by law, at which meeting a quorum was present and voting and which Resolution No. 4-2023-1 is now in full force and effect on the date of this certification.

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Michael A. Gaul, Esquire  
King, Spry, Herman Freund & Faul, LLC  
Lehigh County Authority Solicitor

Date

Attest:

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Lisa J. Miller  
Executive Administrative Support Specialist

Date

SCHEDULE "A"  
to  
RESOLUTION NO. 04-2023-1

## SCHEDULE OF RECORDS SUBJECT TO DISPOSITION

[illegible]



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# MEMORANDUM

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**Date:** April 24, 2023

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

**From:** Phil DePoe, Senior Planning Engineer

**Subject:** Kline's Island Sewer System: Final Alternatives Analysis (FAA) - Planning Phase

**MOTIONS / APPROVALS REQUESTED:**

No.	Item	Amount
1	Capital Plan Authorization: Arcadis – FAA	\$258,000
1A	Professional Services Authorization: Arcadis – FAA	\$208,000*

*\*Included in the Capital Project Authorization*

## **1. Final Alternatives Analysis (FAA)**

### **AUTHORIZATION OVERVIEW:**

As Arcadis concludes work on the Preliminary Screening of Alternatives (PSOA) authorization, the next phase of Act 537 planning covers the Final Alternatives Analysis (FAA) work. This phase of work will evaluate a final group of potential solutions to both the dry weather and weather flow problems (current and through 2050). The FAA will be used to inform a set of options to be analyzed during the subsequent Selection of Solutions stage. See attached proposal for clear identification of proposal goals. See attached for clear identification of proposal goals, objectives, and deliverables.

*Below is a list of relevant abbreviations:*

- Kline's Island Sewer System (KISS); Final Alternative Analysis (FAA); Preliminary Screening of Alternatives (PSOA); Kline's Island Wastewater Treatment Plant (KIWWTP); Source Reduction Plans (SRPs); Million gallons per day (MGD); Water Filtration Plant (WFP); Western Lehigh Interceptor (WLI); Selection of Solution (SOS); Pretreatment Plant (PTP); Environmental Protection Agency (EPA); Department of Environmental Protection (DEP)
- Additional abbreviations can be found in the attached proposal

### **FINANCIAL:**

Costs associated with the execution of the Final Alternatives Analysis (FAA) proposal will be paid by the City of Allentown and reimbursed through existing intermunicipal agreements and by City customers through the use of the Administrative Order Fee.

### **CURRENT STATUS:**

- Authorization to create the KISS model and an authorization to commence the flow characterization study occurred in early 2021
- As the flow characterization study ended in the fourth quarter of 2021, the model calibration commenced on schedule and concluded in early July 2022
- The Capacity Problem Definition phase of work occurred from July through September of 2022

- The Preliminary Screening of Alternatives phase of work occurred from October 2022 through April of 2023

This next critical phase of Act 537 will begin upon approval of this authorization.

### **THIS APPROVAL – PLANNING PHASE:**

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

<b>Professional Services</b>
<ul style="list-style-type: none"> <li>• Alternatives Descriptions</li> </ul>
<ul style="list-style-type: none"> <li>• Alternatives Modeling</li> </ul>
<ul style="list-style-type: none"> <li>• Alternatives Costing and Schedule Development</li> </ul>
<ul style="list-style-type: none"> <li>• Meetings, Presentations, Workshops, and Project Management</li> </ul>

### **KIWWTP Component**

The current peak wet weather capacity of KIWWTP is approximately 87 MGD before Outfall 003 is activated. In order to reduce the number of 003 activations, the following scenarios have been developed for the FAA:

- Raising the capacity from 87 to 100 MGD (preliminary design underway) **PLUS**
  - 100 to 120 MGD → Constructing infrastructure to operate in “parallel treatment” mode **OR** constructing high-rate treatment infrastructure **OR** constructing an equalization storage tank
  - 120+ MGD → Constructing additional infrastructure to operate in “parallel treatment” mode **OR** constructing additional high-rate treatment infrastructure **OR** constructing additional an equalization storage tank

All other items listed in the 2019 KIWWTP Master Plan have no bearing on the proposed FAA work.

### **Source Reduction Plan Component**

The impacts of the various Source Reduction Plans (SRPs) are still under review; however, the FAA work will use only the following:

- Signatory 1 SRP scenario (as evaluated in PSOA #8)
  - These are SRPs prepared by each individual Signatory in December 2022-February 2023
  - The anticipated KIWWTP peak flow (2050 buildout with a 5-year storm event) for this scenario is approximately 140 MGD

Other SRPs evaluated during the PSOA phase include (but were not limited to) the following:

- Optimized SRPs (as evaluated in PSOA #11)
- Benchmark 1 SRP (as evaluated in multiple PSOAs)
- Benchmark 2 SRP (as evaluated in PSOA #9)

Since the anticipated KIWWTP peak flow (2050 buildout with a 5 year storm event ranges from approximately 110 MGD (optimized SRPs) to 175 MGD (no SRP work performed), additional conversations are needed with the Signatories. The Signatory 2 SRP scenario will be included in the FAA process if the following occurs: the Signatories consider the impacts of various SRP options and revise their original plan. This Signatory 2 SRP scenario will contain the revised Signatory SRPs if they are developed.

### Conveyance Project Components

Upon completion of the PSOA work (a few cost estimates are still under preparation), the Region will have evaluated the impact of various conveyance options on (a) costs and on (b) peak flow treatment scenarios at KIWWTP. At the current stage of Act 537 planning, the FAA work will focus on the final conveyance solutions for the following:

- Little Lehigh Interceptor solutions: the area from ~Water Filtration Plant (WFP) to KIWWTP:
  - Traditional “open cut” gravity interceptor options **OR** microtunnel gravity options
  - The preferred alignment for either option is on the south side of the Little Lehigh Creek
- Western Lehigh Interceptor solutions: the area from ~Pretreatment Plant (PTP) to ~WFP
  - PTP EPS (PTP effluent pump station) force main to ~WFP **OR** traditional “open cut” gravity interceptor paralleling options
  - This project may require an expanded Spring Creek Pump Station **AND/OR** the elimination of the Park Pump Station

In addition to the projects listed above, there are multiple interceptors owned by the Signatories that may or may not require upsizing (depending on future growth and source reduction plan effectiveness). These components will not be modeled in the FAA.

### Miscellaneous Components

The final FAA model scenarios and their corresponding descriptions will be defined under Task 1. Like the PSOA work, the FAA will be split into multiple phases of model runs. A total of eighteen model runs were completed under the PSOA and the FAA will likely consist of six model runs.

There are various modifications to the system that will occur regardless of the final Selection of Solution. These are listed in Appendix A of the proposal.

### Pretreatment Plant (PTP) Component

Proposed work resulting from the recently completed PTP Master Plan is assumed to have no impact on the FAA analysis and will not be included.

*See attached proposal for further details.*

## **CONSULTANT SELECTION PROCESS:**

In addition to serving as LCA’s engineering consultant for annual ongoing sewer program support services, Arcadis has worked with the City of Allentown since the 2009 EPA Administrative Order. They are also a critical Act 537 Partner and are developing crucial elements related to the Plan’s development.

## **SCHEDULE:**

Services listed in this proposal will conclude by the end of October 2023.

## **FUTURE AUTHORIZATIONS:**

- None anticipated for this specific phase of work
- The next phase of work (Selection of Solution) will commence upon the FAA conclusion (fourth quarter of 2023)
  - The “Selection of Solution” is the final major authorization related to modeling the current Act 537 planning efforts

Mr. Philip DePoe  
Senior Planning Engineer  
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  
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Subject:

Scope and Budget Kline's Island Sewer System (KISS) Final Alternatives  
Analysis (FAA) Project

Date:

April 14, 2023

Dear Mr. DePoe:

Arcadis is pleased to provide LCA with this scope and budget for the above work. This work will follow on the heels of the Kline's Island Sewer System (KISS) Preliminary Screening of Alternatives (PSOA) work. This work will evaluate a final group of potential solutions to the dry weather and wet weather flow and treatment problems present currently and through 2050 in the KISS to determine effectiveness and cost. This Final Alternatives Analysis will be used to inform a set of options to be analyzed during the subsequent Selection of Solutions stage.

Upon completion of the PSOA work, LCA, City, and Signatories will have evaluated the impact of various Source Reduction Plans (SRPs) on dry weather and peak wet weather flows and selected several SRP scenarios for moving forward. For the purposes of this scope and budget, we have assumed the FAA work use only the "Signatory 1 SRPs scenario" as presented in the individual SRPs prepared by each individual Signatory in December 2022-February 2023, (as evaluated in PSOA #8).

Upon completion of the PSOA work, LCA, City, and Signatories will have evaluated the impact of various Conveyance options on cost and on equalization or peak flow treatment at Kline's Island and selected several conveyance scenarios for moving forward. At the present time, LCA and City wants to focus on conveyance scenarios that - for the Western Lehigh Interceptor - includes options including PTP EPS, expanded SCPS/FM, potentially abandoning PPS/FM, and gravity interceptors. For the Little Lehigh, includes gravity and microtunnel options from Robin Hood Bridge to KIWWTP with alignment preferences on the south side of the Little Lehigh.

Contact:

Jim Shelton

Phone:

302.723.1450

Email:

[James.Shelton@arcadis.com](mailto:James.Shelton@arcadis.com)

A list of abbreviations is  
provided at the end of this  
document.

*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.*

**Common Components** – These are modifications or impact to the system that will occur regardless of the final Selection of Solution. These are listed in Appendix A.

FAA analyses will include:

1. Using the model to solve system capacity limitations:
  - a. Calculate pipe diameter, slopes, and locations
  - b. Calculate pump station rates and head pressures and force main sizes
  - c. Determine pump station influent control logic and sensors
  - d. Calculate reductions in baseline and wet weather flows from source reduction activities (for each contributor).
  - e. Calculate peak flow rates to wastewater treatment
  - f. Calculate the impact on flows from various treatment plant modifications at both Kline's Island WWTP and at LCA's Pretreatment Plant.
2. Calculating capital costs of the above conveyance solutions.
  - a. AECOM will provide Class 4 2023 capital and operating costs for BioActiflo (120 MGD & 150 MGD) and Equalization at KIWWTP
  - b. Kleinfelder will provide Class 4 2023 capital and operating costs for all other aspects of improvements at KIWWTP (e.g., KI Main Lift Station, screening facilities, grit chamber, effluent pump stations, 120 series to parallel treatment, (120 MGD & 150 MGD) etc.), including master plan replacement improvements.
  - c. Jacobs will provide Class 4 2023 capital and operating costs for all aspects of improvements at PTP, including master plan replacement improvements.
  - d. Using an agreed upon methodology, initial estimate for each improvement will be updated to the "time of commission" as provided by Arcadis or the master plans.
3. Size pump horsepower and average operating costs, including energy and O&M, for conveyance pump stations.
4. Determine service life and calculate net present cost of refurbishment. For the FAA:
  - a. Mechanical components - 20 years
  - b. Building, electrical, valve, and control components - 33 years
  - c. Force main, ARV, and force main valve components - 30 years
  - d. Gravity pipeline systems - 100 years
5. Calculate net present costs.

## **OBJECTIVES**

Using a suite of actions, determine the size, extent, and cost of infrastructure improvements needed to address overflows and achieve the site specific hydraulic grade line level of service (HGLLOS) that protects homes near the interceptors from basement backups when presented by the occurrence of rainfall from Hurricane Ida as presented at the Allentown Airport NOAA station (which has been selected by the Signatories as the alternatives evaluation surrogate event) under projected 2050 wastewater flows. Based on current and planned future flows, estimate when each improvement needs to be commissioned. Using this, develop an overall implementation schedule and cost schedule to support Raftelis' financial evaluations. We will also identify where additional Signatory SRP actions may impact or eliminate capital improvements.

## **SCOPE OF WORK**

### **Task 1 – Alternatives Descriptions**

Because the PSOA work is not yet complete, the definitions for the FAAs will be done as part of this project. All FAA alternatives will include all the Common Components listed in Appendix A. This task will include site walks for alignments considered under these alternatives as well as requests for existing buried utilities in selected alignments.

### **Task 2 – Alternatives Modeling**

Using the 2021 KISS Model, Arcadis will model several alternatives to evaluate the impact of major corrective measures and assess their costs. This work will also:

- Detail operating logic for wet wells for pump stations shaving flow from interceptors.
- Determine operational pressure ranges in manifolded pump stations to support pump sizing/costing.
- Determine average pumping rates to support energy use calculations/costing.
- Identify peak and average day flows and average day flow reductions.
- Determine impacts of SRPs for the 2035 and 2050 planning horizons and their impacts on capital improvements.
- Given impact of SRPs and planned growth, identify what capital improvements need to be commissioned by 2035.

For the purposes of this scope and budget, we have assumed 6 alternatives will be modeled. Only a single SRP (Signatory SRP1, which are the source reduction plans provided by each Signatory earlier this year) will be modeled. Only the 5 year design event will be modeled; 3 year and 10 year design events will be considered under the subsequent phase of work (Selection of Solution).

### **Task 3 – Alternatives Costing**

Once each of the FAA alternatives are modeled such that the overflows are addressed and the HGLLOS goals are largely achieved, Arcadis will estimate capital construction, operating, life cycle replacement, and net present worth cost for each FAA alternative's conveyance (piping and pumping) capital improvements. Kleinfelder, AECOM, and Jacobs will provide construction and O&M cost data for their portions of the evaluation. Arcadis will summarize all of these into a single set of spreadsheets with a single dashboard summary spreadsheet ala what has been prepared for the PSOA alternatives. Based on current and planned future flows, estimate when each improvement needs to be commissioned will be prepared and an overall implementation schedule and cost schedule to support Raftelis' financial evaluations prepared.

#### **Task 4 – Meetings, Presentations, Workshops, and Project Management**

During the course of this work, Arcadis will prepare for and lead meetings, presentations, and workshops to LCA staff, the PSC, the KISS Signatories, and regulators. For the purposes of this scope and budget, we have assumed regular monthly meetings. This task will also account for project management costs.

#### **DELIVERABLES**

1. Figures and tables showing impact of Source Reduction Plans.
2. Common Component Cost Estimate – Compilation of estimates prepared by Arcadis, Kleinfelder, AECOM, and Jacobs for the various aspects of the Common Component list.
3. Pump Station and Force Main FAA Model Memo – Documents how we modeled pump stations and forcemains in the FAA alternatives.
4. FAA Figures and Tables describing the FAA alternatives, including new pipe sizes and locations, pump station and wet well locations, pump station and PTP dry day and peak flow capacities, forcemain alignments and diameters, treatment system improvements and modifications, and dry day flow reductions.
5. FAA Summary Table showing costs and impacts of each FAA.

#### **SCHEDULE**

Work will begin once the PSOA work is completed and FAA descriptions can be conducted. Work is slated to start April 2023 and be completed by October 2023. Meetings and workshops to review deliverables will be scheduled throughout this period.

#### **BUDGET ESTIMATE**

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

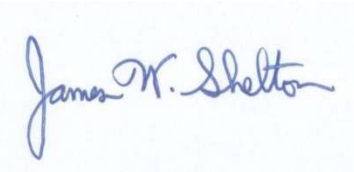
<b>Task</b>	<b>Description</b>	<b>Hours</b>	<b>Cost</b>
<b>1</b>	<b>Alternatives Descriptions</b>	129	\$ 28,000
<b>2</b>	<b>Alternatives Modeling</b>	459	\$ 73,000
<b>3</b>	<b>Alternatives Costing and Schedule Development</b>	250	\$ 55,000
<b>4</b>	<b>Meetings, Presentations, Workshops, and Project Management</b>	197	\$ 52,000
	<b>Total</b>	<b>1035</b>	<b>\$ 208,000</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 the 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.

A handwritten signature in blue ink that reads 'James W. Shelton'.

James W. Shelton, PE  
Vice President

Cc: Tony Dill



## APPENDIX A

### COMMON COMPONENT DETAILS

- a. I&I will continue to increase by a rate of 0.5% per year. Rehabilitation efforts will reduce the I&I from a given asset, but its deterioration will continue at this percentage moving forward in time.
- b. Replacement of high water use fixtures (washing machines, dish washers, shower head, toilets, etc.) and in industrial water consumption reduction practices will continue to reduce water consumption rates through 2035 at a rate of 0.2%. By 2035, the impact from these changes will reduce to 0.1% for the balance of the planning period.
- c. Future flows will be those provided by the Signatories.
  - i. Assumed residential water consumption rate for new residential development is 140 gpd/edu, except for CWSA, whose future flows are not differentiated between residential and commercial/industrial.
  - ii. Commercial and industrial development flows remain based on standard estimates of flow.
  - iii. Flows will be loaded in at present to 2035 and 2035-2050 planning horizons.
- d. Add in peak flows during design event from UMT industrial flows from the Upper Iron Run Trunkline, Industrial Blvd, and Niagara TL to account for how the model uses average daily flows instead of shift-period flow peaks (so we don't undersize downstream infrastructure, PTP upsizing, and FEB control logic during infrastructure sizing).
- e. Maximum pressurization goals provided by City, LCA, UMT, CWSA, ST, and SWT for their specific Interceptor and trunkline for wet weather and dry weather operating conditions.
  - i. A default value of dry weather  $d/D=1$  will be used where no specific goal is given by individual Signatory.
  - ii. A default value of wet weather depth below rim of 3' will be used where no specific goal is given by individual Signatory.
- f. Basement protection maximum wet weather hydraulic grade line to protect houses near interceptors and trunklines will be 3' below rim will be used where no specific goal is given by individual Signatory.
- g. Identify where manholes will be raised or sealed to minimize parallel demands.
  - i. Raised manholes will not exceed 3' above grade.
  - ii. Sealing will be done where raising is not possible.
- h. Modify KI MPS/APS to increase capacity from 84 MGD to 100 MGD. For the PSOA work, this will be modeled as wet well influent pipe only to determine average and peak flow demands.
- i. Operate PTP using PTP LS pumps as VFDs with levels to provide flow optimized control logic (as present in the current model).

- j. Operate FEB fill and drain cycles and levels with levels to provide flow optimized control logic (as present in the current model).
- k. Operate SCPS influent gates, comminutor, and pump control with levels to provide flow optimized control logic (as present in the current model).
- l. Operate PPS influent gates in so that it is in 20% open position as the default position and pump control levels to provide flow optimized control logic (as present in the current model). For the PSOA work, this will be modeled as wet well influent pipe only to determine average and peak flow demands.
- m. For any interceptors or trunklines planned for CIPPL rehabilitation, reduce ID by 1.5" and alter manning coefficient to 0.013. Planned rehabilitations to primary interceptors and trunklines are:
  - i. Little Lehigh Interceptor – 19XX ZZZ pipeline needs to be inspected to determine if it needs rehabilitation within the 2050 planning horizon.
  - ii. Jordan Creek Interceptor – 19XX ZZZ pipeline needs to be inspected to determine if it needs rehabilitation within the 2050 planning horizon.
  - iii. Eastside Trunkline Interceptor – 19XX ZZZ pipeline needs to be inspected to determine if it needs rehabilitation within the 2050 planning horizon.
  - iv. Lehigh River Siphon – 19XX ZZZ pipeline needs to be inspected to determine if it needs rehabilitation within the 2050 planning horizon.
  - v. Hanover Trunkline – 19XX ZZZ pipeline needs to be inspected to determine if it needs rehabilitation within the 2050 planning horizon.
  - vi. Sumner Avenue Trunkline – 19XX ZZZ pipeline needs to be inspected to determine if it needs rehabilitation within the 2050 planning horizon.
  - vii. Trout Creek Interceptor – 19XX ZZZ pipeline needs to be inspected to determine if it needs rehabilitation within the 2050 planning horizon.
  - viii. Trout Creek Relief Interceptor – No rehab or inspection planned. This line gave no evidence of leakage during flow monitoring. PVC pipe installed in 2000. ST expects this pipeline to not require rehabilitation until after 2050.
  - ix. Cedar Creek Interceptor – 19XX ZZZ pipeline needs to be inspected to determine if it needs rehabilitation within the 2050 planning horizon.
  - x. Cedar Creek Relief Interceptor – 19XX ZZZ pipeline needs to be inspected to determine if it needs rehabilitation within the 2050 planning horizon.
  - xi. Lehigh Interceptor – 19XX ZZZ pipeline needs to be inspected to determine if it needs rehabilitation within the 2050 planning horizon.
  - xii. Little Cedar Creek Trunkline – 19XX ZZZ pipeline needs to be inspected to determine if it needs rehabilitation within the 2050 planning horizon.
  - xiii. Cedar Creek Trunkline – 19XX ZZZ pipeline needs to be inspected to determine if it needs rehabilitation within the 2050 planning horizon.
  - xiv. Allentown-Emmaus Interceptor – 19XX VCP pipeline needs to be inspected to determine if it needs rehabilitation within the 2050 planning horizon.
  - xv. CWSA Lehigh Interceptor – RCP interceptor was built in 1965 with O-ring joints and exterior cement mortar diapers. It has not been inspected so its condition

- is not known. This pipeline will need to be inspected to determine if it needs rehabilitation within the 2050 planning horizon.
- xvi. CWSA Lehigh Relief Interceptor – PCCP interceptor was built in 1993 and it has not been inspected so its condition is not known. 2500 If of the 4100 If relief interceptor was replaced with DIP in 2018; CWSA expects this portion of the pipeline to not require rehabilitation until after 2050. The 1993 PCCP portion is pipeline need to be inspected to determine if it needs rehabilitation within the 2050 planning horizon.
  - xvii. CWSA Jordan Creek Interceptor – No rehab or inspection planned. Replaced with DIP in 2009, CWSA expects this pipeline to not require rehabilitation until after 2050.
  - xviii. CWSA Coplay Trunkline– No rehab or inspection planned. Replaced with DIP in 2013. CWSA expects this pipeline to not require rehabilitation until after 2050.
  - xix. Little Lehigh Relief Interceptor – Entire pipeline was inspected ~2009 and found to be in excellent condition. Test and Seal of entire pipe planned for 2025.
  - xx. Upper Western Lehigh Interceptor – Entire pipeline was inspected and found to be in excellent condition in 2019. Any leaking joints were sealed in 2019.
  - xxi. Alburtis Macungie Trunkline – Entire pipeline was inspected and found to be in excellent condition in 2014. Any leaking joints were sealed in 2014.
  - xxii. Upper Milford Trunkline – Entire pipeline was inspected and found to be in excellent condition in 2014. Any leaking joints were sealed in 2014.
  - xxiii. Breinigsville Trunkline– Entire pipeline was inspected and found to be in excellent condition in 2014. Any leaking joints were sealed in 2014.
  - xxiv. Iron Run Trunkline – Entire pipeline was inspected and found to be in excellent condition in 2014. Any leaking joints were sealed in 2014.
  - xxv. Upper Iron Run Trunkline– Entire pipeline was inspected in 2020. Leaking end seals and burst liners were repaired in 2020.
  - xxvi. Upper Macungie Trunkline – 19XX ZZZ pipeline needs to be inspected to determine if it needs rehabilitation within the 2050 planning horizon.
  - xxvii. Industrial Boulevard Trunkline – 19XX ZZZ pipeline needs to be inspected to determine if it needs rehabilitation within the 2050 planning horizon.
  - xxviii. Southside Trunkline – 19XX ZZZ pipeline needs to be inspected to determine if it needs rehabilitation within the 2050 planning horizon.
- n. Planned improvements to KIWWTP as part of the 2018 KIWWTP Master Plan
  - o. Planned improvements to PTP as part of the 2023 PTP Master Plan
  - p. Planned improvements to SCPS and PPS as part of the Pump Station Master Plan
  - q. Force Main refurbishment improvements
    - i. SCPS FM 2023 Inspection
    - ii. PPS FM 2030 Inspection
    - iii. SCPS FM ARV 2025 replacement
    - iv. PPS FM ARV 2025 replacement

Mr. Philip DePoe  
Proposal for Final Alternatives Analysis  
April 14, 2023

- v. PPS FM 2035 rehabilitation
- vi. SCPS FM 2035 rehabilitation

## **APPENDIX B**

### **ABBREVIATIONS**

- ADDF – Average Dry Day Flow
- AO – Administrative Orders (closed under Trump Administration orders; recursor to subsequent PADEP Chapter 94 action that triggered current 537 Planning)
- ARV – Air Release Valve (let's unwanted air out of forcemain\_
- City – City of Allentown Common Components – things needed or desired to be done regardless of final solution
- CWSA – Coplay Whitehall Sewer Authority
- FAA – Final Alternatives Analyses
- FEB – Flow Equalization Basin (at PTP)
- FM - Forcemain
- HGL – Hydraulic Grade Line (how high sewer flow goes)
- HGLLOS – Hydraulic Grade Line Level of Service (how high the flow in sewer should be allowed to go)
- I&I – Inflow and Infiltration (leakage into the sewers)
- KISS – Kline's Island Sewer System
- KIWWTP - Kline's Island Wastewater Treatment Plant
- KLPS – Kricks Lane Pump Station (a conceptual facility)
- LCA – Lehigh County Authority
- LSPS – Little Sister Pump Station (a conceptual facility next to PPS)
- LLRI – Little Lehigh Relief Interceptor
- MGD – Millions of gallons per day
- MPS – Main Pump Station (influent PS at KIWWTP)
- NOAA – National Oceanic and Atmospheric Administration
- NPDES – National Pollution Elimination Discharge System (permit to discharge treated wastewater to river)
- PSOA – Preliminary Screening of Alternatives
- PS – Pump Station
- PPS – Park Pump Station
- PSC – Program Steering Committee
  
- PTP – Pretreatment Plant

- PTP EPS - Pretreatment Plant Effluent Pump Station (a conceptual facility)
- RDII – Rainfall Derived Inflow and Infiltration (storm-triggered increases in I&I leading to peak wet weather flows)
- SBM – Sewer Billing Meter
- SCARP – Sewer Capacity Assurance and Rehabilitation Program (the precursor to the 537 Program)
- SCPS – Spring Creek Pump Station
- SOS – Selection of Solution
- SRP – Source Reduction Plan (I&I removal plan)
- SSES – Sanitary Sewer Evaluation Study (investigation for I&I)
- VFD – Variable Frequency Drive (motors)
- WLSP – Western Lehigh Sewer Partnership (LCA customers)

## CAPITAL PROJECT AUTHORIZATION

PROJECT NO.:	AD-S-12	BUDGET FUND:	Allentown Div\Wastewater\Capital
PROJECT TITLE:	Kline's Island Sewer System Final Alternatives Analysis (FAA) – Planning Phase		PROJECT TYPE:
THIS AUTHORIZATION:	\$258,000	<input type="checkbox"/>	Construction
TO DATE (W/ ABOVE)	\$258,000	<input checked="" type="checkbox"/>	Engineering Study
		<input type="checkbox"/>	Equipment Purchase
		<input type="checkbox"/>	Amendment

### DESCRIPTION AND BENEFITS:

As Arcadis concludes work on the Preliminary Screening of Alternatives (PSOA) authorization, the next phase of Act 537 planning covers the Final Alternatives Analysis (FAA) work. This phase of work will evaluate a final group of potential solutions to both the dry weather and weather flow problems (current and through 2050). The FAA will be used to inform a set of options to be analyzed during the subsequent Selection of Solutions stage. See attached for clear identification of proposal goals, objectives, and deliverables.

**Prior Authorizations:** None specifically related to this specific authorization. To date, Arcadis has been granted multiple authorizations throughout this Act 537 planning process. Arcadis performed a FAA for LCA during the prior SCARP (Sewer Capacity Assurance and Rehabilitation Program) era planning period (2010-2019).

**This Authorization:** Completion of the work associated with this "Final Alternatives Analysis" proposal. See attached Board Memo for further project details.

### Authorization Status:

Requested This Authorization (Final Alternatives Analysis)	
<i>Design Phase</i>	
Staff	\$30,000
Contractor	\$0
Engineering Consultant	\$208,000
Contingency	\$20,000
<b>Total This Authorization</b>	<b>\$258,000</b>

Prior Act 537 Authorizations (2019-present)	Various
<b>Subtotal</b>	<b>\$258,000</b>
<i>Future Authorizations</i>	<i>To be determined</i>

### REVIEW AND APPROVALS:

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



**Lehigh County Authority**

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

## PROFESSIONAL SERVICES AUTHORIZATION

**Professional:** ARCADIS U.S., INC.  
1600 Market Street  
Suite 1810  
Philadelphia, PA 19103

**Date:** April 24, 2023

**Requested By:** Phil DePoe

### Approvals

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

**Chief Executive**

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

### **Allentown Division: Kline's Island Sewer System Final Alternatives Analysis (FAA) – Planning Phase**

As Arcadis concludes work on the Preliminary Screening of Alternatives (PSOA) authorization, the next phase of Act 537 planning covers the Final Alternatives Analysis (FAA) work. This phase of work will evaluate a final group of potential solutions to both the dry weather and weather flow problems (current and through 2050). The FAA will be used to inform a set of options to be analyzed during the subsequent Selection of Solutions stage. See attached for clear identification of proposal goals, objectives, and deliverables. The services of the proposal include, but are not limited to, the following:

Professional Services <sup>(1)</sup>
1. Alternatives Descriptions
2. Alternatives Modeling
3. Alternatives Costing and Schedule Development
4. Meetings, Presentations, Workshops, and Project Management

*(1) Planning phase only*

**This Approval:** \$208,000 *(see attached proposal)*

**Total Amount (not to be exceeded without further authorization):** \$208,000

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

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### (For Authority Use Only)

**Authorization Completion:**

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



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## MEMORANDUM

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**Date:** April 24, 2023

**To:** Lehigh County Authority Board of Directors  
**From:** Charles Volk, P.E., CCWO  
**Subject:** Allentown Division – WWTP: Primary Digester No. 2 Mechanical Rehabilitation - Construction Phase

**MOTIONS / APPROVALS REQUESTED:**

No.	Item	Amount
1	Capital Project Authorization – Construction Phase	\$248,650
2 <sup>(1)</sup>	General Contract Award – Zimmerman Environmental	\$131,500
3 <sup>(1)</sup>	Electrical Contract Award – Diefenderfer Electrical Contractors	\$64,950
4 <sup>(1)</sup>	Professional Services Authorization – GHD, Inc.	\$27,200

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

**PROJECT OVERVIEW:**

Cleaning and rehabilitation of the digester tanks is performed on a 5-year cycle at KIIWWTP. Primary Digester No. 2 was last cleaned in 2018 and is due for cleaning this year. The digester was authorized for cleaning at the February 13, 2023 LCA Board meeting, and the contractor (Mobile Solids Solutions) is scheduled to mobilize for that work in April 2023.

The work to be performed under this authorization is the mechanical rehabilitation of Primary Digester No. 2, which includes the demolition and replacement of the gas mixing system compressor, replacement of tank suction and discharge lines, replacement of sludge sample lines, replacement of external stairs and ramp, and furnishing and installing new explosion-proof electrical control panels and related electrical components. This work consists of two contracts (general and electrical) and will commence upon completion of the tank cleaning contract.

**FINANCIAL:**

This Project will be funded by the LCA Allentown Division.

**PROJECT STATUS:**

The project was advertised for bid in March 2022. A pre-bid meeting was held on March 23, 2023, and bids were received on April 5, 2023.

**THIS APPROVAL – CONSTRUCTION PHASE:**

The construction phase includes activities that are necessary to rehabilitate Primary No. 2 Digester tank. The General and Electrical Contractor will be responsible for all construction activities.

The design engineer will perform construction phase engineering services, including periodic site visits to verify construction progress and progress meetings with the contractors.

**BIDDING SUMMARY:**

The project consists of a General and Electrical Contract. The bid results are summarized below:  
Contract No. 1 – General Construction (GC):

<b>Bidder</b>	<b>Bid Results</b>
<b>Zimmerman Environmental</b>	<b>\$131,500.00</b>
Heisey Mechanical, Ltd	\$150,975.00
LB Industries, Inc.	\$176,921.00
Eastern Environmental Contractors, Inc.	\$192,800.00
Iron Hills Construction	\$258,000.00
PSI Pumping Solutions, Inc.	\$200,000.00

Contract No. 2 – Electrical Construction (EC):

<b>Bidder</b>	<b>Bid Results</b>
<b>Diefenderfer Electrical Contractors</b>	<b>\$64,950.00</b>
FIS, LLC	\$66,270.00

The low bidder on the GC contract is Zimmerman Environmental (Zimmerman), located in Bechtelsville PA. Zimmerman specializes in wastewater treatment plant and pump station mechanical work and has been in business for 9 years. Zimmerman completed several LCA wastewater projects, including flood pump replacement at KIWWTP and air release valve replacement in Suburban Division and their performance was satisfactory. GHD contacted their project references, and the firm was given positive reviews. The documents submitted with the Bid are complete and satisfactory. We recommend award of the bid for the GC contract to Zimmerman.

The low bidder on the EC contract is Diefenderfer Electrical Contractors (Diefenderfer), located in Allentown PA. Diefenderfer specializes in electrical work at water and wastewater treatment plants, as well as institutional and industrial electrical work. The firm has completed numerous projects for LCA and the City of Allentown, and in 2022 Diefenderfer was awarded electrical contract for the Effluent Disinfection and Dechlorination project and the Boiler Replacement project at KIWWTP. Diefenderfer is well qualified for this work and the documents submitted with their Bid are complete and satisfactory. We recommend award of the bid for the EC contract to Diefenderfer.

The Engineer's Estimate for this work is \$213,000. The total of the low bids for both contracts is \$196,450.

**PROFESSIONAL SERVICES:**

GHD Inc. has been our design engineer on this project (and prior digester cleaning and rehabilitation projects at KIWWTP) and will provide engineering services for construction phase.

**PROJECT SCHEDULE:**

The specifications require that the tank rehabilitation work be completed within 60 days of the Notice to Proceed. The work will be completed by mid-summer.

**FUTURE AUTHORIZATIONS:**

None

## CAPITAL PROJECT AUTHORIZATION

<b>PROJECT NO.:</b>	<u>SD-S-3</u>	<b>BUDGET FUND:</b>	<u>Allentown Div\Wastewater\Capital</u>
<b>PROJECT TITLE:</b>	<u>Allentown Division – Primary Digester No. 2 Mechanical Rehabilitation</u>	<b>PROJECT TYPE:</b>	<input checked="" type="checkbox"/> Construction <input type="checkbox"/> Engineering Study <input type="checkbox"/> Equipment Purchase <input type="checkbox"/> Amendment
<b>THIS AUTHORIZATION:</b>	<u>\$248,650</u>		
<b>TO DATE (W/ ABOVE)</b>	<u>\$288,632</u>		

### DESCRIPTION AND BENEFITS:

#### Allentown Division – KIWWTP Primary Digester No. 2 Mechanical Rehabilitation Project

The work to be performed under this authorization is the mechanical rehabilitation of Primary Digester No. 2, which includes the demolition and replacement of the gas mixing system compressor, replacement of tank suction and discharge lines, replacement of sludge sample lines, replacement of external stairs and ramp, and furnishing and installing new explosion-proof electrical control panels and related electrical components. This work consists of two contracts (general and electrical), with construction phase services to be provided by the design engineer, GHD.

Previous Authorizations	
Design/Bid Phase (GHD)	\$39,982

REQUESTED THIS AUTHORIZATION	
Construction Phase	
General Construction Contract – Zimmerman Environmental	\$131,500
Electrical Construction Contract – Diefenderfer Electrical Contractors	64,950
Construction Phase Engineering Services – GHD	\$27,200
Staff	\$5,000
Contingency	\$20,000
Total This Authorization	<b>\$248,650</b>

Future Authorization	
none	

### REVIEW AND APPROVALS:

<u>Project Manager</u>	<u>Date</u>	<u>Chief Executive Officer</u>	<u>Date</u>
<u>Chief Capital Works Officer</u>	<u>Date</u>	<u>Chairman</u>	<u>Date</u>



**Lehigh County Authority**

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## PROFESSIONAL SERVICES AUTHORIZATION

**Professional:** GHD INC.  
1140 Welsh Rd, Suite 120  
North Wales, PA 19454

**Date:** April 24, 2023

**Requested By:** Charles Volk

**Approvals**

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

**Chief Executive**

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

**Allentown Division – KIWWTP Primary Digester No. 2 Mechanical Rehabilitation:  
Construction Phase**

GHD Inc. will perform construction phase related services for Primary No.2 Digester Mechanical Rehabilitation at the Kline's Island Wastewater Treatment Plant (KIWWTP). The construction phase services include the following tasks:

Professional Services
1. Attend pre-construction and two progress meetings
2. Shop drawing review
3. Respond to contractor RFIs
4. Perform periodic site visits to inspect progress of work in accordance with the contract specifications
5. Payment application review
6. Substantial completion inspection & on-site start-up assistance
7. Contract closeout administration and as-built drawing review & verification

*(1) Included in the CPA*

Not to be exceeded without further authorization: **\$27,200**

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

**(For Authority Use Only)**

**Authorization Completion:**

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

**LEHIGH COUNTY AUTHORITY  
FINANCIAL STATEMENTS  
MARCH 2023**

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

	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
Income Statement															
Suburban Water	42,066	(72,294)	(124,722)	114,360	166,788	512,073	66,131	250,952	445,942	261,121	2,169,036	2,169,036	3,708,287	-	(1,539,251)
Suburban Wastewater	451,393	311,963	(447,686)	139,431	899,080	(85,297)	(888,925)	(388,274)	803,628	302,977	2,150,192	2,150,192	(613,540)	0	2,763,732
City Division	764,407	693,845	1,027,268	70,561	(262,861)	2,804,133	1,945,448	3,074,326	858,685	(270,193)	4,780,898	4,780,898	6,675,079	-	(1,894,181)
Total LCA	1,257,866	933,514	454,860	324,352	803,006	3,230,908	1,122,654	2,937,003	2,108,255	293,905	9,100,126	9,100,126	9,769,826	0	(669,700)
Cash Flow Statement															
Suburban Water	6,198,113	3,025,598	(87,864)	3,172,515	6,285,977	5,052,796	1,263,039	(307,077)	3,789,757	5,359,873	2,981,439	46,653	480,110	2,934,786	2,501,329
Suburban Wastewater	1,763,650	(429,916)	(1,348,934)	2,193,566	3,112,584	2,553,728	(300,405)	785,795	2,854,132	1,767,933	788,163	762,612	1,359,980	25,551	(571,817)
City Division	3,781,113	3,836,009	3,613,348	(54,896)	167,765	6,955,497	6,372,056	3,883,645	583,441	3,071,852	2,042,271	2,671,275	2,809,215	(629,003)	(766,943)
Total LCA	11,742,876	6,431,691	2,176,550	5,311,185	9,566,326	14,562,021	7,334,690	4,362,362	7,227,331	10,199,658	5,811,874	3,480,540	4,649,305	2,331,334	1,162,568
Debt Service Coverage Ratio															
Suburban Water	1.36	0.91	0.87	0.45	0.49	1.80	1.23	1.67	0.57	0.13	1.83	1.83	2.66	-	(0.83)
Suburban Wastewater	16.20	13.88	1.44	2.32	14.76	8.31	3.87	6.87	4.44	1.44	11.69	11.69	9.49	0.00	2.20
City Division	2.04	1.44	0.80	0.60	1.24	2.18	1.98	2.40	0.19	(0.22)	2.10	2.10	2.41	0.00	(0.31)

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

Consolidated Financial Statements																
STATEMENTS OF ACTIVITIES	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>Operating Revenues:</b>																
User Charges	1,252,845	1,223,714	4,034,363	6,510,922	3,726,703	3,742,039	11,932,712	19,401,455	16,287,500	21,822,513	50,680,860	88,790,873	16,287,500	21,822,513	50,680,860	88,790,873
Connection & System Charges	38,059	66,053	577,925	682,037	122,642	761,164	855,644	1,739,450	680,700	875,600	4,096,600	5,652,900	680,700	875,600	4,096,600	5,652,900
Other Miscellaneous Revenues	3,400	30	5,095	8,525	7,150	205	21,783	29,138	31,800	2,300	69,300	103,400	31,800	2,300	69,300	103,400
<b>Total Operating Revenues</b>	<b>1,294,304</b>	<b>1,289,797</b>	<b>4,617,384</b>	<b>7,201,485</b>	<b>3,856,495</b>	<b>4,503,408</b>	<b>12,810,139</b>	<b>21,170,043</b>	<b>17,000,000</b>	<b>22,700,413</b>	<b>54,846,760</b>	<b>94,547,173</b>	<b>17,000,000</b>	<b>22,700,413</b>	<b>54,846,760</b>	<b>94,547,173</b>
<b>Operating Expenses:</b>																
Personnel	341,393	141,740	1,107,051	1,590,184	963,367	423,624	2,717,164	4,104,155	3,838,376	1,739,145	12,818,583	18,396,104	3,838,376	1,739,145	12,818,583	18,396,104
Shared Services - General & Administrative	66,249	27,652	172,975	266,877	171,135	75,233	485,280	731,649	847,837	353,525	2,197,452	3,398,813	847,837	353,525	2,197,452	3,398,813
Utilities	57,366	17,423	430,728	505,518	132,181	60,029	706,209	898,419	516,389	312,787	2,018,173	2,847,348	516,389	312,787	2,018,173	2,847,348
Materials and Supplies	80,895	37,009	289,627	407,531	163,781	89,090	651,524	904,395	887,370	324,100	2,621,000	3,832,470	887,370	324,100	2,621,000	3,832,470
Miscellaneous Services	384,255	676,560	154,475	1,215,290	931,024	1,683,579	306,338	2,920,941	4,610,690	7,212,206	2,112,700	13,935,596	4,610,690	7,212,206	2,112,700	13,935,596
Treatment and Transportation	-	(544,755)	-	(544,755)	-	750,000	-	750,000	-	4,293,345	14,318	4,307,662	-	4,293,345	14,318	4,307,662
Depreciation and Amortization	255,823	519,616	515,817	1,291,257	767,469	1,559,417	1,546,192	3,873,078	3,023,000	6,221,900	6,160,000	15,404,900	3,023,000	6,221,900	6,160,000	15,404,900
Major Maintenance Expenses	-	525	17,178	17,703	-	2,578	30,996	33,574	-	25,200	4,000,000	4,025,200	-	25,200	4,000,000	4,025,200
Other Miscellaneous	-	-	-	-	-	-	-	-	41,600	-	-	41,600	41,600	-	-	41,600
<b>Total Operating Expenses</b>	<b>1,185,981</b>	<b>875,770</b>	<b>2,687,852</b>	<b>4,749,603</b>	<b>3,128,957</b>	<b>4,643,550</b>	<b>6,443,705</b>	<b>14,216,211</b>	<b>13,765,262</b>	<b>20,482,206</b>	<b>31,942,225</b>	<b>66,189,694</b>	<b>13,765,262</b>	<b>20,482,207</b>	<b>31,942,225</b>	<b>66,189,694</b>
<b>Net Operating Profit</b>	<b>108,324</b>	<b>414,027</b>	<b>1,929,531</b>	<b>2,451,882</b>	<b>727,539</b>	<b>(140,141)</b>	<b>6,366,434</b>	<b>6,953,831</b>	<b>3,234,738</b>	<b>2,218,207</b>	<b>22,904,535</b>	<b>28,357,479</b>	<b>3,234,738</b>	<b>2,218,206</b>	<b>22,904,535</b>	<b>28,357,479</b>
<b>Non-Operating Income (Expense)</b>																
Interest Income	23,935	34,176	244,104	302,215	61,150	80,047	665,158	806,355	64,782	85,128	128,661	278,572	64,782	85,128	128,661	278,572
Interest (Expense)	(94,977)	(13,463)	(1,409,229)	(1,517,669)	(284,956)	(40,347)	(4,227,459)	(4,552,762)	(1,130,484)	(153,143)	(18,252,298)	(19,535,925)	(1,130,484)	(153,143)	(18,252,298)	(19,535,925)
Other Miscellaneous	4,785	16,654	-	21,438	8,340	15,144	-	23,484	-	-	-	-	-	-	-	-
<b>Net Non-Operating Income (Expense)</b>	<b>(66,258)</b>	<b>37,367</b>	<b>(1,165,125)</b>	<b>(1,194,016)</b>	<b>(215,466)</b>	<b>54,844</b>	<b>(3,562,301)</b>	<b>(3,722,923)</b>	<b>(1,065,702)</b>	<b>(68,015)</b>	<b>(18,123,637)</b>	<b>(19,257,353)</b>	<b>(1,065,702)</b>	<b>(68,015)</b>	<b>(18,123,637)</b>	<b>(19,257,353)</b>
<b>Net Income (Loss)</b>	<b>42,066</b>	<b>451,393</b>	<b>764,407</b>	<b>1,257,866</b>	<b>512,073</b>	<b>(85,297)</b>	<b>2,804,133</b>	<b>3,230,908</b>	<b>2,169,036</b>	<b>2,150,192</b>	<b>4,780,898</b>	<b>9,100,126</b>	<b>2,169,036</b>	<b>2,150,192</b>	<b>4,780,898</b>	<b>9,100,126</b>
<b>CASH FLOW STATEMENT</b>																
<b>Cash Flows From Operating Activities</b>																
Operating Revenues	1,294,304	1,289,797	4,617,384	7,201,485	3,856,495	4,503,408	12,810,139	21,170,043	17,000,000	22,700,413	54,846,760	94,547,173	17,000,000	22,700,413	54,846,760	94,547,173
Operating Expenses (ex D&A)	(930,158)	(355,629)	(2,154,857)	(3,440,644)	(2,361,488)	(3,081,555)	(4,866,516)	(10,309,559)	(10,742,262)	(14,235,106)	(21,782,225)	(46,759,594)	(10,742,262)	(14,235,107)	(21,782,225)	(46,759,594)
Non-Cash Working Capital Changes	(70,027)	(1,072,211)	1,796,780	654,542	(2,326,244)	(577,406)	(350,377)	(3,254,026)	2,934,786	351	(829,004)	2,106,133	(0)	(25,200)	0	(25,200)
<b>Net Cash Provided by (Used in) Operating Activities</b>	<b>294,119</b>	<b>(138,044)</b>	<b>4,259,307</b>	<b>4,415,383</b>	<b>(831,236)</b>	<b>844,448</b>	<b>7,593,246</b>	<b>7,606,458</b>	<b>9,192,524</b>	<b>8,465,658</b>	<b>32,235,531</b>	<b>49,893,712</b>	<b>6,257,738</b>	<b>8,440,106</b>	<b>33,064,535</b>	<b>47,762,379</b>
<b>Cash Flows From Financing Activities</b>																
Capital Contributions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds New Borrowing	6,950,000	-	-	6,950,000	6,950,000	-	-	6,950,000	3,950,000	-	1,400,000	5,350,000	3,950,000	-	1,200,000	5,150,000
Interest Payments	(975)	(12,708)	-	(13,683)	(2,949)	(38,001)	-	(40,950)	(1,130,484)	(153,143)	(11,788,844)	(13,072,471)	(1,130,484)	(153,143)	(11,788,844)	(13,072,471)
Principal Payments	(6,267)	(47,686)	-	(53,953)	(18,778)	(142,767)	-	(161,545)	(2,344,383)	(575,980)	(3,342,077)	(6,262,440)	(2,344,383)	(575,980)	(3,342,077)	(6,262,440)
<b>Net Cash Provided by (Used in) Financing Activities</b>	<b>6,942,758</b>	<b>(60,394)</b>	<b>-</b>	<b>6,882,364</b>	<b>6,928,273</b>	<b>(180,768)</b>	<b>-</b>	<b>6,747,505</b>	<b>475,133</b>	<b>(729,123)</b>	<b>(13,730,921)</b>	<b>(13,984,911)</b>	<b>475,133</b>	<b>(729,123)</b>	<b>(13,930,921)</b>	<b>(14,184,911)</b>
<b>Cash Flows from Capital and Related Activities</b>																
Non-Operating Income (Expenses)	4,785	16,654	-	21,438	8,340	15,144	-	23,484	-	-	(1,400,000)	(1,400,000)	-	-	(1,400,000)	(1,400,000)
Capital Expenditures, net	(827,484)	(135,916)	(722,298)	(1,685,698)	(1,118,731)	(229,317)	(1,302,907)	(2,650,956)	(6,751,000)	(7,033,500)	(15,191,000)	(28,975,500)	(6,751,000)	(7,033,500)	(15,191,000)	(28,975,500)
<b>Net Cash Provided By (Used In) Capital and Related Activities</b>	<b>(822,699)</b>	<b>(119,262)</b>	<b>(722,298)</b>	<b>(1,664,259)</b>	<b>(1,110,391)</b>	<b>(214,173)</b>	<b>(1,302,907)</b>	<b>(2,627,471)</b>	<b>(6,751,000)</b>	<b>(7,033,500)</b>	<b>(16,591,000)</b>	<b>(30,375,500)</b>	<b>(6,751,000)</b>	<b>(7,033,500)</b>	<b>(16,591,000)</b>	<b>(30,375,500)</b>
<b>Cash Flows From Investing Activities</b>																
Investments Converting To Cash	249,000	2,290,174	-	2,539,174	494,000	3,901,174	-	4,395,174	245,000	1,486,000	-	1,731,000	-	-	-	-
Purchased Investments	(489,000)	(243,000)	-	(732,000)	(489,000)	(1,877,000)	-	(2,366,000)	(245,000)	(1,486,000)	-	(1,731,000)	-	-	-	-
Interest Income	23,935	34,176	244,104	302,215	61,150	80,047	665,158	806,355	64,782	85,128	128,661	278,572	64,782	85,128	128,661	278,572
<b>Net Cash Provided By (Used In) Investing Activities</b>	<b>(216,065)</b>	<b>2,081,350</b>	<b>244,104</b>	<b>2,109,389</b>	<b>66,150</b>	<b>2,104,221</b>	<b>665,158</b>	<b>2,835,529</b>	<b>64,782</b>	<b>85,128</b>	<b>128,661</b>	<b>278,572</b>	<b>64,782</b>	<b>85,128</b>	<b>128,661</b>	<b>278,572</b>
<b>FUND NET CASH FLOWS</b>	<b>6,198,113</b>	<b>1,763,650</b>	<b>3,781,113</b>	<b>11,742,876</b>	<b>5,052,796</b>	<b>2,553,728</b>	<b>6,955,497</b>	<b>14,562,021</b>	<b>2,981,439</b>	<b>788,163</b>	<b>2,042,271</b>	<b>5,811,874</b>	<b>46,653</b>	<b>762,612</b>	<b>2,671,275</b>	<b>3,480,540</b>
<b>DEBT SERVICE RATIO</b>																
<b>Debt Service Ratio (Indenture Based)</b>																
Total Operating Revenues	1,252,845	1,223,714	4,034,363	6,510,922	3,726,703	3,742,039	11,932,712	19,401,455	16,287,500	21,822,513	50,680,860	88,790,873	16,287,500	21,822,513	50,680,860	88,790,873
Total Operating Expenses (Cash Based)	(930,158)	(356,154)	(2,172,035)	(3,458,347)	(2,361,488)	(3,084,133)	(4,897,513)	(10,343,133)	(10,742,262)	(14,260,306)	(21,782,225)	(46,784,794)	(10,742,262)	(14,260,307)	(21,782,225)	(46,784,794)
Interest Income	23,935	34,176	244,104	302,215	61,150	80,047	665,158	806,355	64,782	85,128	128,661	278,572	64,782	85,128	128,661	278,572
Annual Lease Payment (City)	-	-	(116,667)	(116,667)	-	-	(350,000)	(350,000)	-	-	(1,400,000)	(1,400,000)	-	-	(1,400,000)	(1,400,000)
Total Non-Operating Revenues (Expenses)	46,244	82,737	583,020	712,001	138,132	776,513	877,427	1,792,072	754,100	877,900	4,165,900	5,797,900	754,100	877,900	4,165,900	5,797,900
<b>Cash Available For Debt Service</b>	<b>392,866</b>	<b>984,472</b>	<b>2,572,786</b>	<b>3,950,124</b>	<b>1,564,498</b>	<b>1,514,467</b>	<b>8,227,785</b>	<b>11,306,749</b>	<b>6,364,120</b>	<b>8,525,235</b>	<b>31,793,196</b>	<b>46,682,552</b>	<b>6,364,120</b>	<b>8,525,235</b>	<b>31,793,196</b>	<b>46,682,551</b>
Interest Paid	94,207	12,762	982,404	1,089,373	282,621	38,286	2,947,211	3,268,118	1,130,484	153,143	11,788,844	13,072,471	1,130,484	153,143	11,788,844	13,072,471
Debt Retirement (Principal Payments)	195,365	47,998	788,506	521,870	586,096	143,995	835,519	1,565,610	2,344,383	575,980	3,342,077	6,262,440	2,344,383	575,980	3,342,077	6,262,440
<b>Total Debt Service</b>	<b>289,572</b>	<b>60,760</b>	<b>1,260,910</b>	<b>1,611,243</b>	<b>868,717</b>	<b>182,281</b>	<b>3,782,730</b>	<b>4,833,728</b>	<b>3,474,867</b>	<b>729,123</b>	<b>15,130,921</b>	<b>19,334,911</b>	<b>3,474,867</b>	<b>729,123</b>	<b>15,130,921</b>	<b>19,334,911</b>
<b>Debt Service Ratio</b>	<b>1.36</b>	<b>16.20</b>	<b>2.04</b>	<b>2.45</b>	<b>1.80</b>	<b>8.31</b>	<b>2.18</b>	<b>2.34</b>	<b>1.83</b>	<b>11.69</b>	<b>2.10</b>	<b>2.41</b>	<b>1.83</b>	<b>11.69</b>	<b>2.10</b>	<b>2.41</b>

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

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	1,252,845	1,200,986	1,164,789	51,859	88,056	3,726,703	3,384,974	3,276,959	341,729	449,745	16,287,500	16,287,500	15,788,461	-	499,039
Connection & System Charges	38,059	49,716	55,037	(11,657)	(16,978)	122,642	128,498	120,667	(5,855)	1,975	680,700	680,700	652,881	-	27,819
Other Miscellaneous Revenues	3,400	86	1,920	3,314	1,480	7,150	257	5,745	6,893	1,405	31,800	31,800	710,985	-	(679,185)
<b>Total Operating Revenues</b>	<b>1,294,304</b>	<b>1,250,788</b>	<b>1,221,746</b>	<b>43,516</b>	<b>72,558</b>	<b>3,856,495</b>	<b>3,513,729</b>	<b>3,403,371</b>	<b>342,767</b>	<b>453,125</b>	<b>17,000,000</b>	<b>17,000,000</b>	<b>17,152,327</b>	<b>-</b>	<b>(152,327)</b>
<b>Operating Expenses:</b>															
Personnel	341,393	290,261	391,984	(51,132)	50,592	963,367	877,313	797,751	(86,054)	(165,616)	3,838,376	3,838,376	3,377,883	-	(460,493)
Shared Services - General & Administrative	66,249	63,329	41,045	(2,920)	(25,204)	171,135	173,135	112,212	2,000	(58,923)	847,837	847,837	549,501	-	(298,336)
Utilities	57,366	117,620	109,786	60,254	52,420	132,181	206,585	192,827	74,404	60,646	516,389	516,389	481,998	-	(34,391)
Materials and Supplies	80,895	176,851	179,949	95,956	99,054	163,781	227,039	228,518	63,259	64,737	887,370	887,370	864,220	-	(23,150)
Miscellaneous Services	384,255	342,337	271,040	(41,918)	(113,216)	931,024	965,124	760,883	34,100	(170,141)	4,610,690	4,610,690	3,654,426	-	(956,264)
Treatment and Transportation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Depreciation and Amortization	255,823	201,140	249,987	(54,683)	(5,836)	767,469	603,385	749,919	(164,084)	(17,550)	3,023,000	3,023,000	3,757,142	(0)	734,142
Major Maintenance Expenses	-	-	346	-	346	-	-	2,444	-	2,444	-	-	-	-	-
Other Miscellaneous	-	-	-	-	-	-	-	-	-	-	41,600	41,600	156,699	-	115,099
<b>Total Operating Expenses</b>	<b>1,185,981</b>	<b>1,191,536</b>	<b>1,244,137</b>	<b>5,556</b>	<b>58,156</b>	<b>3,128,957</b>	<b>3,052,582</b>	<b>2,844,554</b>	<b>(76,375)</b>	<b>(284,403)</b>	<b>13,765,262</b>	<b>13,765,262</b>	<b>12,841,869</b>	<b>(0)</b>	<b>(923,393)</b>
<b>Net Operating Profit</b>	<b>108,324</b>	<b>59,252</b>	<b>(22,391)</b>	<b>49,072</b>	<b>130,714</b>	<b>727,539</b>	<b>461,146</b>	<b>558,817</b>	<b>266,392</b>	<b>168,722</b>	<b>3,234,738</b>	<b>3,234,738</b>	<b>4,310,458</b>	<b>(0)</b>	<b>(1,075,720)</b>
<b>Non-Operating Income (Expense)</b>															
Interest Income	23,935	2,321	3,707	21,614	20,229	61,150	6,723	10,735	54,427	50,414	64,782	64,782	103,451	-	(38,668)
Interest (Expense)	(94,977)	(133,867)	(100,314)	38,890	5,336	(284,956)	(401,738)	(301,045)	116,782	16,089	(1,130,484)	(1,130,484)	(847,133)	-	(283,351)
Other Miscellaneous	4,785	-	(5,724)	4,785	10,508	8,340	-	(17,556)	8,340	25,896	-	-	141,512	-	(141,512)
<b>Net Non-Operating Income (Expense)</b>	<b>(66,258)</b>	<b>(131,546)</b>	<b>(102,331)</b>	<b>65,288</b>	<b>36,073</b>	<b>(215,466)</b>	<b>(395,016)</b>	<b>(307,865)</b>	<b>179,550</b>	<b>92,399</b>	<b>(1,065,702)</b>	<b>(1,065,702)</b>	<b>(602,171)</b>	<b>-</b>	<b>(463,531)</b>
<b>Net Income (Loss)</b>	<b>42,066</b>	<b>(72,294)</b>	<b>(124,722)</b>	<b>114,360</b>	<b>166,788</b>	<b>512,073</b>	<b>66,131</b>	<b>250,952</b>	<b>445,942</b>	<b>261,121</b>	<b>2,169,036</b>	<b>2,169,036</b>	<b>3,708,287</b>	<b>(0)</b>	<b>(1,539,251)</b>
<b>CASH FLOW STATEMENT</b>															
<b>Cash Flows From Operating Activities</b>															
Operating Revenues	1,294,304	1,250,788	1,221,746	43,516	72,558	3,856,495	3,513,729	3,403,371	342,767	453,125	17,000,000	17,000,000	17,152,327	-	(152,327)
Operating Expenses (ex D&A)	(930,158)	(990,397)	(994,150)	60,239	63,992	(2,361,488)	(2,449,197)	(2,094,635)	87,709	(266,853)	(10,742,262)	(10,742,262)	(9,084,727)	-	(1,657,535)
Non-Cash Working Capital Changes	(70,027)	(70,127)	(174,279)	100	104,251	(2,326,244)	(2,551,515)	(975,136)	225,272	(1,351,108)	2,934,786	(0)	1,591,761	2,934,786	1,343,026
<b>Net Cash Provided by (Used in) Operating Activities</b>	<b>294,119</b>	<b>190,264</b>	<b>53,317</b>	<b>103,855</b>	<b>240,802</b>	<b>(831,236)</b>	<b>(1,486,984)</b>	<b>333,599</b>	<b>655,748</b>	<b>(1,164,835)</b>	<b>9,192,524</b>	<b>6,257,738</b>	<b>9,659,360</b>	<b>2,934,786</b>	<b>(466,836)</b>
<b>Cash Flows From Financing Activities</b>															
Capital Contributions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds New Borrowing	6,950,000	3,950,000	-	3,000,000	6,950,000	6,950,000	3,950,000	-	3,000,000	6,950,000	3,950,000	3,950,000	-	-	3,950,000
Interest Payments	(975)	(1,099)	(1,166)	124	191	(2,949)	(3,394)	(3,603)	445	655	(1,130,484)	(1,130,484)	(1,200,136)	-	69,652
Principal Payments	(6,267)	(20,504)	(16,838)	14,237	10,571	(18,778)	(61,386)	(50,411)	42,608	31,632	(2,344,383)	(2,344,383)	(1,925,231)	-	(419,152)
<b>Net Cash Provided by (Used in) Financing Activities</b>	<b>6,942,758</b>	<b>3,928,397</b>	<b>(18,005)</b>	<b>3,014,361</b>	<b>6,960,763</b>	<b>6,928,273</b>	<b>3,885,220</b>	<b>(54,014)</b>	<b>3,043,053</b>	<b>6,982,287</b>	<b>475,133</b>	<b>475,133</b>	<b>(3,125,367)</b>	<b>-</b>	<b>3,600,500</b>
<b>Cash Flows from Capital and Related Activities</b>															
Non-Operating Income (Expenses)	4,785	-	(5,724)	4,785	10,508	8,340	-	(17,556)	8,340	25,896	-	-	(112,090)	-	112,090
Capital Expenditures, net	(827,484)	(850,385)	(121,159)	22,901	(706,325)	(1,118,731)	(1,141,920)	(579,841)	23,189	(538,890)	(6,751,000)	(6,751,000)	(6,051,243)	-	(699,757)
<b>Net Cash Provided By (Used In) Capital and Related Activities</b>	<b>(822,699)</b>	<b>(850,385)</b>	<b>(126,883)</b>	<b>27,685</b>	<b>(695,816)</b>	<b>(1,110,391)</b>	<b>(1,141,920)</b>	<b>(597,397)</b>	<b>31,529</b>	<b>(512,994)</b>	<b>(6,751,000)</b>	<b>(6,751,000)</b>	<b>(6,163,334)</b>	<b>-</b>	<b>(587,666)</b>
<b>Cash Flows From Investing Activities</b>															
Investments Converting To Cash	249,000	-	-	249,000	249,000	494,000	245,000	249,000	249,000	245,000	245,000	-	990,000	245,000	(745,000)
Purchased Invesments	(489,000)	(245,000)	-	(244,000)	(489,000)	(489,000)	(245,000)	(249,000)	(244,000)	(240,000)	(245,000)	-	(984,000)	(245,000)	739,000
Interest Income	23,935	2,321	3,707	21,614	20,229	61,150	6,723	10,735	54,427	50,414	64,782	64,782	103,451	-	(38,668)
<b>Net Cash Provided By (Used In) Investing Activities</b>	<b>(216,065)</b>	<b>(242,679)</b>	<b>3,707</b>	<b>26,614</b>	<b>(219,771)</b>	<b>66,150</b>	<b>6,723</b>	<b>10,735</b>	<b>59,427</b>	<b>55,414</b>	<b>64,782</b>	<b>64,782</b>	<b>109,451</b>	<b>-</b>	<b>(44,668)</b>
<b>FUND NET CASH FLOWS</b>	<b>6,198,113</b>	<b>3,025,598</b>	<b>(87,864)</b>	<b>3,172,515</b>	<b>6,285,977</b>	<b>5,052,796</b>	<b>1,263,039</b>	<b>(307,077)</b>	<b>3,789,757</b>	<b>5,359,873</b>	<b>2,981,439</b>	<b>46,653</b>	<b>480,110</b>	<b>2,934,786</b>	<b>2,501,329</b>
<b>DEBT SERVICE RATIO</b>															
<b>Debt Service Ratio (Indenture Based)</b>															
User Charges	1,252,845	1,200,986	1,164,789	51,859	88,056	3,726,703	3,384,974	3,276,959	341,729	449,745	16,287,500	16,287,500	15,788,461	-	499,039
Operating Expenses (Cash Based)	(930,158)	(990,397)	(994,150)	60,239	63,992	(2,361,488)	(2,449,197)	(2,094,635)	87,709	(266,853)	(10,742,262)	(10,742,262)	(9,084,727)	-	(1,657,535)
Interest Income	23,935	2,321	3,707	21,614	20,229	61,150	6,723	10,735	54,427	50,414	64,782	64,782	103,451	-	(38,668)
Annual Lease Payment (City)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-Operating Revenues (Expenses)	46,244	49,802	51,233	(3,558)	(4,989)	138,132	128,754	108,856	9,378	29,277	754,100	754,100	1,505,377	-	(751,277)
<b>Cash Available For Debt Service</b>	<b>392,866</b>	<b>262,713</b>	<b>225,579</b>	<b>130,154</b>	<b>167,288</b>	<b>1,564,498</b>	<b>1,071,254</b>	<b>1,301,915</b>	<b>493,244</b>	<b>262,583</b>	<b>6,364,120</b>	<b>6,364,120</b>	<b>8,312,562</b>	<b>-</b>	<b>(1,948,442)</b>
Interest Paid	94,207	94,207	100,011	-	(5,804)	282,621	282,621	300,034	-	(17,413)	1,130,484	1,130,484	1,200,136	-	(69,652)
Debt Retirement (Principal Payments)	195,365	195,365	160,436	-	34,929	586,096	586,096	481,308	-	104,788	2,344,383	2,344,383	1,925,231	-	419,152
<b>Total Debt Service</b>	<b>289,572</b>	<b>289,572</b>	<b>260,447</b>	<b>-</b>	<b>29,125</b>	<b>868,717</b>	<b>868,717</b>	<b>781,342</b>	<b>-</b>	<b>87,375</b>	<b>3,474,867</b>	<b>3,474,867</b>	<b>3,125,367</b>	<b>-</b>	<b>349,500</b>
<b>Debt Service Ratio</b>	<b>1.36</b>	<b>0.91</b>	<b>0.87</b>	<b>0.45</b>	<b>0.49</b>	<b>1.80</b>	<b>1.23</b>	<b>1.67</b>	<b>0.57</b>	<b>0.13</b>	<b>1.83</b>	<b>1.83</b>	<b>2.66</b>	<b>-</b>	<b>(0.83)</b>



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

**STATEMENTS OF ACTIVITIES**

**Operating Revenues:**

User Charges  
Connection & System Charges  
Other Miscellaneous Revenues

**Total Operating Revenues**

**Operating Expenses:**

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

**Total Operating Expenses**

**Net Operating Profit**

**Non-Operating Income (Expense)**

Interest Income  
Interest (Expense)  
Other Miscellaneous

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

**Net Income (Loss)**

**CASH FLOW STATEMENT**

**Cash Flows From Operating Activities**

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

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

**Cash Flows From Financing Activities**

Capital Contributions  
Proceeds New Borrowing  
Interest Payments  
Principal Payments

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

**Cash Flows from Capital and Related Activities**

Non-Operating Income (Expenses)  
Capital Expenditures, net

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

**Cash Flows From Investing Activities**

Investments Converting To Cash  
Purchased Investments  
Interest Income

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

**FUND NET CASH FLOWS**

Suburban - Water			
Actual	Q1 FC	FC Var	Comments
3,726,703	3,384,974	341,729	Higher industrial, commercial, and residential volumes
122,642	128,498	(5,855)	
7,150	257	6,893	
<b>3,856,495</b>	<b>3,513,729</b>	<b>342,767</b>	<b>Higher user charges</b>
963,367	877,313	(86,054)	
171,135	173,135	2,000	
132,181	206,585	74,404	
163,781	227,039	63,259	
931,024	965,124	34,100	
-	-	-	
767,469	603,385	(164,084)	
-	-	-	
-	-	-	
<b>3,128,957</b>	<b>3,052,582</b>	<b>(76,375)</b>	<b>Lower discretionary spending more than offset by higher D&amp;A</b>
<b>727,539</b>	<b>461,146</b>	<b>266,392</b>	<b>Higher operating revenues partly offset by higher operating expenses</b>
61,150	6,723	54,427	
(284,956)	(401,738)	116,782	
8,340	-	8,340	
<b>(215,466)</b>	<b>(395,016)</b>	<b>179,550</b>	<b>Favorable financial activity</b>
<b>512,073</b>	<b>66,131</b>	<b>445,942</b>	<b>Higher net operating income along with favorable financial activity</b>

Suburban - Water			
Actual	Q1 FC	FC Var	Comments
3,856,495	3,513,729	342,767	
(2,361,488)	(2,449,197)	87,709	
(2,326,244)	(2,551,515)	225,272	
<b>(831,236)</b>	<b>(1,486,984)</b>	<b>655,748</b>	<b>Higher operating revenues, lower operating expenses, and favorable working capital movements</b>
-	-	-	
6,950,000	3,950,000	3,000,000	Higher Fulton Bond drawdown
(2,949)	(3,394)	445	
(18,778)	(61,386)	42,608	
<b>6,928,273</b>	<b>3,885,220</b>	<b>3,043,053</b>	<b>Higher bond drawdown</b>
8,340	-	8,340	
(1,118,731)	(1,141,920)	23,189	
<b>(1,110,391)</b>	<b>(1,141,920)</b>	<b>31,529</b>	<b>Lower capex</b>
494,000	245,000	249,000	
(489,000)	(245,000)	(244,000)	
61,150	6,723	54,427	
<b>66,150</b>	<b>6,723</b>	<b>59,427</b>	<b>Higher interest income</b>
<b>5,052,796</b>	<b>1,263,039</b>	<b>3,789,757</b>	<b>Higher cash provided by operations, higher loan drawdown, lower capex, and higher interest income</b>

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

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
Operating Revenues:															
User Charges	1,223,714	1,048,256	939,357	175,458	284,357	3,742,039	3,692,392	3,618,075	49,648	123,965	21,822,513	21,822,513	15,030,893	0	6,791,621
Connection & System Charges	66,053	28,227	108,284	37,826	(42,321)	761,164	88,370	339,007	672,794	422,157	875,600	875,600	3,319,169	-	(2,443,569)
Other Miscellaneous Revenues	30	44	30	(14)	-	205	87	60	118	145	2,300	2,300	1,586	-	715
<b>Total Operating Revenues</b>	<b>1,289,797</b>	<b>1,076,526</b>	<b>1,047,671</b>	<b>213,271</b>	<b>242,125</b>	<b>4,503,408</b>	<b>3,780,848</b>	<b>3,957,142</b>	<b>722,560</b>	<b>546,266</b>	<b>22,700,413</b>	<b>22,700,413</b>	<b>18,351,647</b>	<b>0</b>	<b>4,348,766</b>
Operating Expenses:															
Personnel	141,740	132,264	142,167	(9,476)	427	423,624	404,940	337,009	(18,684)	(86,616)	1,739,145	1,739,145	1,401,342	-	(337,802)
Shared Services - General & Administrative	27,652	26,634	16,940	(1,018)	(10,713)	75,233	74,495	47,380	(738)	(27,853)	353,525	353,525	224,850	-	(128,675)
Utilities	17,423	49,457	42,987	32,034	25,564	60,029	110,891	96,383	50,862	36,354	312,787	312,787	271,864	-	(40,922)
Materials and Supplies	37,009	34,837	36,929	(2,173)	(81)	89,090	67,621	71,874	(21,468)	(17,215)	324,100	324,100	339,718	-	15,618
Miscellaneous Services	676,560	538,021	476,402	(138,539)	(200,158)	1,683,579	1,653,889	1,453,661	(29,689)	(229,918)	7,212,206	7,212,206	6,500,348	(0)	(711,858)
Treatment and Transportation	(544,755)	(545,617)	230,000	(861)	774,755	750,000	768,767	690,000	18,767	(60,000)	4,293,345	4,293,345	2,846,200	0	(1,447,145)
Depreciation and Amortization	519,616	518,249	516,262	(1,367)	(3,355)	1,559,417	1,554,705	1,548,744	(4,712)	(10,673)	6,221,900	6,221,900	7,104,631	-	882,731
Major Maintenance Expenses	525	192	192	(333)	-	2,578	3,274	3,271	696	693	25,200	25,200	-	-	(25,200)
Other Miscellaneous	-	-	-	-	-	-	-	-	-	-	-	-	86,524	-	86,524
<b>Total Operating Expenses</b>	<b>875,770</b>	<b>754,037</b>	<b>1,461,878</b>	<b>(121,732)</b>	<b>586,108</b>	<b>4,643,550</b>	<b>4,638,583</b>	<b>4,248,321</b>	<b>(4,967)</b>	<b>(395,228)</b>	<b>20,482,206</b>	<b>20,482,207</b>	<b>18,775,478</b>	<b>0</b>	<b>(1,706,729)</b>
<b>Net Operating Profit</b>	<b>414,027</b>	<b>322,488</b>	<b>(414,206)</b>	<b>91,538</b>	<b>828,233</b>	<b>(140,141)</b>	<b>(857,734)</b>	<b>(291,179)</b>	<b>717,593</b>	<b>151,038</b>	<b>2,218,207</b>	<b>2,218,206</b>	<b>(423,830)</b>	<b>0</b>	<b>2,642,037</b>
Non-Operating Income (Expense)															
Interest Income	34,176	2,588	3,960	31,588	30,215	80,047	7,895	12,081	72,153	67,966	85,128	85,128	130,271	-	(45,142)
Interest (Expense)	(13,463)	(13,114)	(15,922)	(349)	2,459	(40,347)	(39,085)	(47,454)	(1,262)	7,107	(153,143)	(153,143)	(185,934)	-	32,791
Other Miscellaneous	16,654	-	(21,519)	16,654	38,172	15,144	-	(61,722)	15,144	76,866	-	-	(134,047)	-	134,047
<b>Net Non-Operating Income (Expense)</b>	<b>37,367</b>	<b>(10,526)</b>	<b>(33,480)</b>	<b>47,892</b>	<b>70,847</b>	<b>54,844</b>	<b>(31,190)</b>	<b>(97,095)</b>	<b>86,034</b>	<b>151,939</b>	<b>(68,015)</b>	<b>(68,015)</b>	<b>(189,710)</b>	<b>-</b>	<b>121,695</b>
<b>Net Income (Loss)</b>	<b>451,393</b>	<b>311,963</b>	<b>(447,686)</b>	<b>139,431</b>	<b>899,080</b>	<b>(85,297)</b>	<b>(888,925)</b>	<b>(388,274)</b>	<b>803,628</b>	<b>302,977</b>	<b>2,150,192</b>	<b>2,150,192</b>	<b>(613,540)</b>	<b>0</b>	<b>2,763,732</b>
<b>CASH FLOW STATEMENT</b>															
<b>Cash Flows From Operating Activities</b>															
Operating Revenues	1,289,797	1,076,526	1,047,671	213,271	242,125	4,503,408	3,780,848	3,957,142	722,560	546,266	22,700,413	22,700,413	18,351,647	0	4,348,766
Operating Expenses (ex D&A)	(355,629)	(235,597)	(945,424)	(120,032)	589,795	(3,081,555)	(3,080,603)	(2,696,307)	(951)	(385,247)	(14,235,106)	(14,235,107)	(11,670,847)	0	(2,564,260)
Non-Cash Working Capital Changes	(1,072,211)	(1,072,050)	(1,089,216)	(161)	17,005	(577,406)	(586,426)	(542,611)	9,021	(34,795)	351	(25,200)	460,183	25,551	(459,832)
<b>Net Cash Provided by (Used in) Operating Activities</b>	<b>(138,044)</b>	<b>(231,121)</b>	<b>(986,970)</b>	<b>93,078</b>	<b>848,926</b>	<b>844,448</b>	<b>113,819</b>	<b>718,224</b>	<b>730,629</b>	<b>126,224</b>	<b>8,465,658</b>	<b>8,440,106</b>	<b>7,140,984</b>	<b>25,551</b>	<b>1,324,674</b>
<b>Cash Flows From Financing Activities</b>															
Capital Contributions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds New Borrowing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Payments	(12,708)	(13,004)	(11,996)	296	(712)	(38,001)	(38,974)	(35,953)	973	(2,048)	(153,143)	(153,143)	(141,271)	-	(11,872)
Principal Payments	(47,686)	(47,657)	(46,536)	(29)	(1,150)	(142,767)	(142,680)	(139,324)	(87)	(3,443)	(575,980)	(575,980)	(562,430)	-	(13,550)
<b>Net Cash Provided by (Used in) Financing Activities</b>	<b>(60,394)</b>	<b>(60,661)</b>	<b>(58,532)</b>	<b>267</b>	<b>(1,862)</b>	<b>(180,768)</b>	<b>(181,655)</b>	<b>(175,277)</b>	<b>886</b>	<b>(5,491)</b>	<b>(729,123)</b>	<b>(729,123)</b>	<b>(703,701)</b>	<b>-</b>	<b>(25,422)</b>
<b>Cash Flows from Capital and Related Activities</b>															
Non-Operating Income (Expenses)	16,654	-	(21,519)	16,654	38,172	15,144	-	(61,722)	15,144	76,866	-	-	(134,047)	-	134,047
Capital Expenditures, net	(135,916)	(140,722)	(282,875)	4,806	146,959	(229,317)	(240,463)	(646,511)	11,146	417,194	(7,033,500)	(7,033,500)	(3,081,527)	-	(3,951,973)
<b>Net Cash Provided By (Used In) Capital and Related Activities</b>	<b>(119,262)</b>	<b>(140,722)</b>	<b>(304,394)</b>	<b>21,460</b>	<b>185,131</b>	<b>(214,173)</b>	<b>(240,463)</b>	<b>(708,233)</b>	<b>26,290</b>	<b>494,060</b>	<b>(7,033,500)</b>	<b>(7,033,500)</b>	<b>(3,215,573)</b>	<b>-</b>	<b>(3,817,927)</b>
<b>Cash Flows From Investing Activities</b>															
Investments Converting To Cash	2,290,174	-	245,000	2,290,174	2,045,174	3,901,174	1,486,000	1,922,000	2,415,174	1,979,174	1,486,000	-	2,906,000	1,486,000	(1,420,000)
Purchased Investments	(243,000)	-	(248,000)	(243,000)	5,000	(1,877,000)	(1,486,000)	(983,000)	(391,000)	(894,000)	(1,486,000)	-	(4,898,000)	(1,486,000)	3,412,000
Interest Income	34,176	2,588	3,960	31,588	30,215	80,047	7,895	12,081	72,153	67,966	85,128	85,128	130,271	-	(45,142)
<b>Net Cash Provided By (Used In) Investing Activities</b>	<b>2,081,350</b>	<b>2,588</b>	<b>960</b>	<b>2,078,762</b>	<b>2,080,389</b>	<b>2,104,221</b>	<b>7,895</b>	<b>951,081</b>	<b>2,096,327</b>	<b>1,153,140</b>	<b>85,128</b>	<b>85,128</b>	<b>(1,861,729)</b>	<b>-</b>	<b>1,946,858</b>
<b>FUND NET CASH FLOWS</b>	<b>1,763,650</b>	<b>(429,916)</b>	<b>(1,348,934)</b>	<b>2,193,566</b>	<b>3,112,584</b>	<b>2,553,728</b>	<b>(300,405)</b>	<b>785,795</b>	<b>2,854,132</b>	<b>1,767,933</b>	<b>788,163</b>	<b>762,612</b>	<b>1,359,980</b>	<b>25,551</b>	<b>(571,817)</b>
<b>DEBT SERVICE RATIO</b>															
<b>Debt Service Ratio (Indenture Based)</b>															
User Charges	1,223,714	1,048,256	939,357	175,458	284,357	3,742,039	3,692,392	3,618,075	49,648	123,965	21,822,513	21,822,513	15,030,893	0	6,791,621
Operating Expenses (Cash Based)	(356,154)	(235,788)	(945,616)	(120,365)	589,462	(3,084,133)	(3,083,877)	(2,699,578)	(255)	(384,555)	(14,260,306)	(14,260,307)	(11,670,847)	0	(2,589,460)
Interest Income	34,176	2,588	3,960	31,588	30,215	80,047	7,895	12,081	72,153	67,966	85,128	85,128	130,271	-	(45,142)
Annual Lease Payment (City)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-Operating Revenues (Expenses)	82,737	28,270	86,796	54,467	(4,059)	776,513	88,457	277,346	688,056	499,167	877,900	877,900	3,186,708	-	(2,308,808)
<b>Cash Available For Debt Service</b>	<b>984,472</b>	<b>843,325</b>	<b>84,497</b>	<b>141,147</b>	<b>899,975</b>	<b>1,514,467</b>	<b>704,865</b>	<b>1,207,923</b>	<b>809,601</b>	<b>306,543</b>	<b>8,525,235</b>	<b>8,525,235</b>	<b>6,677,025</b>	<b>0</b>	<b>1,848,210</b>
Interest Paid	12,762	12,762	11,773	-	989	38,286	38,286	35,318	-	2,968	153,143	153,143	141,271	-	11,872
Debt Retirement (Principal Payments)	47,998	47,998	46,869	-	1,129	143,995	143,995	140,608	-	3,387	575,980	575,980	562,430	-	13,550
<b>Total Debt Service</b>	<b>60,760</b>	<b>60,760</b>	<b>58,642</b>	<b>-</b>	<b>2,118</b>	<b>182,281</b>	<b>182,281</b>	<b>175,925</b>	<b>-</b>	<b>6,355</b>	<b>729,123</b>	<b>729,123</b>	<b>703,701</b>	<b>-</b>	<b>25,422</b>
<b>Debt Service Ratio</b>	<b>16.20</b>	<b>13.88</b>	<b>1.44</b>	<b>2.32</b>	<b>14.76</b>	<b>8.31</b>	<b>3.87</b>	<b>6.87</b>	<b>4.44</b>	<b>1.44</b>	<b>11.69</b>	<b>11.69</b>	<b>9.49</b>	<b>0.00</b>	<b>2.20</b>

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

**STATEMENTS OF ACTIVITIES**

**Operating Revenues:**

User Charges  
Connection & System Charges  
Other Miscellaneous Revenues

**Total Operating Revenues**

**Operating Expenses:**

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

**Total Operating Expenses**

**Net Operating Profit**

**Non-Operating Income (Expense)**

Interest Income  
Interest (Expense)  
Other Miscellaneous

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

**Net Income (Loss)**

**CASH FLOW STATEMENT**

**Cash Flows From Operating Activities**

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

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

**Cash Flows From Financing Activities**

Capital Contributions  
Proceeds New Borrowing  
Interest Payments  
Principal Payments

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

**Cash Flows from Capital and Related Activities**

Non-Operating Income (Expenses)  
Capital Expenditures, net

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

**Cash Flows From Investing Activities**

Investments Converting To Cash  
Purchased Investments  
Interest Income

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

**FUND NET CASH FLOWS**

Suburban - Wastewater			
Actual	Q1 FC	FC Var	Comments
3,742,039	3,692,392	49,648	Higher tapping fees
761,164	88,370	672,794	
205	87	118	
<b>4,503,408</b>	<b>3,780,848</b>	<b>722,560</b>	<b>Slightly higher user charges along with higher tapping fees</b>
423,624	404,940	(18,684)	
75,233	74,495	(738)	
60,029	110,891	50,862	
89,090	67,621	(21,468)	
1,683,579	1,653,889	(29,689)	
750,000	768,767	18,767	
1,559,417	1,554,705	(4,712)	
2,578	3,274	696	
-	-	-	
<b>4,643,550</b>	<b>4,638,583</b>	<b>(4,967)</b>	<b>Slightly higher operating expenses overall</b>
<b>(140,141)</b>	<b>(857,734)</b>	<b>717,593</b>	<b>Higher operating revenues slightly offset by higher operating expenses</b>
80,047	7,895	72,153	
(40,347)	(39,085)	(1,262)	
15,144	-	15,144	
<b>54,844</b>	<b>(31,190)</b>	<b>86,034</b>	<b>Higher interest income</b>
<b>(85,297)</b>	<b>(888,925)</b>	<b>803,628</b>	<b>Higher net operating income aided by favorable financial activity</b>
4,503,408	3,780,848	722,560	
(3,081,555)	(3,080,603)	(951)	
(577,406)	(586,426)	9,021	
<b>844,448</b>	<b>113,819</b>	<b>730,629</b>	<b>Higher operating revenues</b>
-	-	-	
-	-	-	
(38,001)	(38,974)	973	
(142,767)	(142,680)	(87)	
<b>(180,768)</b>	<b>(181,655)</b>	<b>886</b>	
15,144	-	15,144	
(229,317)	(240,463)	11,146	
<b>(214,173)</b>	<b>(240,463)</b>	<b>26,290</b>	
3,901,174	1,486,000	2,415,174	Reinvestment to occur in April
(1,877,000)	(1,486,000)	(391,000)	
80,047	7,895	72,153	
<b>2,104,221</b>	<b>7,895</b>	<b>2,096,327</b>	<b>Favorable variance from investing activity</b>
<b>2,553,728</b>	<b>(300,405)</b>	<b>2,854,132</b>	<b>Higher cash from operations and favorable investing activity</b>

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

	City Division														
	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>STATEMENTS OF ACTIVITIES</b>															
<b>Operating Revenues:</b>															
User Charges	4,034,363	4,101,420	3,783,183	(67,057)	251,180	11,932,712	11,692,709	11,603,738	240,003	328,974	50,680,860	50,680,860	46,757,244	-	3,923,616
Connection & System Charges	577,925	574,083	1,003,653	3,842	(425,727)	855,644	811,023	1,458,103	44,620	(602,459)	4,096,600	4,096,600	6,232,355	-	(2,135,755)
Other Miscellaneous Revenues	5,095	1,234	3,825	3,861	1,270	21,783	3,644	11,295	18,140	10,488	69,300	69,300	214,812	-	(145,512)
<b>Total Operating Revenues</b>	<b>4,617,384</b>	<b>4,676,738</b>	<b>4,790,661</b>	<b>(59,354)</b>	<b>(173,278)</b>	<b>12,810,139</b>	<b>12,507,376</b>	<b>13,073,136</b>	<b>302,763</b>	<b>(262,997)</b>	<b>54,846,760</b>	<b>54,846,760</b>	<b>53,204,411</b>	<b>-</b>	<b>1,642,349</b>
<b>Operating Expenses:</b>															
Personnel	1,107,051	1,060,559	1,346,984	(46,492)	239,932	2,717,164	2,682,092	2,796,953	(35,073)	79,789	12,818,583	12,818,583	11,209,176	(0)	(1,609,407)
Shared Services - General & Administrative	172,975	137,926	100,788	(35,049)	(72,188)	485,280	452,536	330,684	(32,745)	(154,597)	2,197,452	2,197,452	1,605,755	-	(591,697)
Utilities	430,728	430,924	143,710	196	(287,018)	706,209	750,343	428,961	44,133	(277,249)	2,018,173	2,018,173	1,802,290	0	(215,883)
Materials and Supplies	289,627	203,282	170,428	(86,345)	(119,199)	651,524	469,487	397,114	(182,038)	(254,410)	2,621,000	2,621,000	2,227,858	-	(393,143)
Miscellaneous Services	154,475	82,726	79,447	(71,749)	(75,028)	306,338	253,400	239,942	(52,937)	(66,396)	2,112,700	2,112,700	1,807,096	-	(305,604)
Treatment and Transportation	-	-	-	-	-	-	-	-	-	-	14,318	14,318	11,594	-	(2,724)
Depreciation and Amortization	515,817	504,072	521,492	(11,745)	5,675	1,546,192	1,512,296	1,564,559	(33,896)	18,367	6,160,000	6,160,000	6,372,883	0	212,883
Major Maintenance Expenses	17,178	29,287	6,445	12,109	(10,734)	30,996	264,410	58,184	233,413	27,187	4,000,000	4,000,000	5,817,436	0	1,817,436
Other Miscellaneous	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>2,687,852</b>	<b>2,448,777</b>	<b>2,369,294</b>	<b>(239,075)</b>	<b>(318,558)</b>	<b>6,443,705</b>	<b>6,384,563</b>	<b>5,816,397</b>	<b>(59,142)</b>	<b>(627,308)</b>	<b>31,942,225</b>	<b>31,942,225</b>	<b>30,854,087</b>	<b>-</b>	<b>(1,088,138)</b>
<b>Net Operating Profit</b>	<b>1,929,531</b>	<b>2,227,961</b>	<b>2,421,367</b>	<b>(298,429)</b>	<b>(491,836)</b>	<b>6,366,434</b>	<b>6,122,813</b>	<b>7,256,739</b>	<b>243,621</b>	<b>(890,305)</b>	<b>22,904,535</b>	<b>22,904,535</b>	<b>22,350,324</b>	<b>-</b>	<b>554,211</b>
<b>Non-Operating Income (Expense)</b>															
Interest Income	244,104	47	335	244,057	243,769	665,158	212,126	895	453,032	664,263	128,661	128,661	914,680	-	(786,019)
Interest (Expense)	(1,409,229)	(1,534,162)	(1,394,435)	124,934	(14,794)	(4,227,459)	(4,389,491)	(4,183,308)	162,031	(44,152)	(18,252,298)	(18,252,298)	(16,589,925)	-	(1,662,373)
Other Miscellaneous	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Net Non-Operating Income (Expense)</b>	<b>(1,165,125)</b>	<b>(1,534,115)</b>	<b>(1,394,099)</b>	<b>368,991</b>	<b>228,975</b>	<b>(3,562,301)</b>	<b>(4,177,365)</b>	<b>(4,182,413)</b>	<b>615,064</b>	<b>620,112</b>	<b>(18,123,637)</b>	<b>(18,123,637)</b>	<b>(15,675,244)</b>	<b>-</b>	<b>(2,448,392)</b>
<b>Net Income (Loss)</b>	<b>764,407</b>	<b>693,845</b>	<b>1,027,268</b>	<b>70,561</b>	<b>(262,861)</b>	<b>2,804,133</b>	<b>1,945,448</b>	<b>3,074,326</b>	<b>858,685</b>	<b>(270,193)</b>	<b>4,780,898</b>	<b>4,780,898</b>	<b>6,675,079</b>	<b>-</b>	<b>(1,894,181)</b>
<b>CASH FLOW STATEMENT</b>															
<b>Cash Flows From Operating Activities</b>															
Operating Revenues	4,617,384	4,676,738	4,790,661	(59,354)	(173,278)	12,810,139	12,507,376	13,073,136	302,763	(262,997)	54,846,760	54,846,760	53,204,411	-	1,642,349
Operating Expenses (ex D&A)	(2,154,857)	(1,915,418)	(1,841,357)	(239,439)	(313,500)	(4,866,516)	(4,607,857)	(4,193,654)	(258,659)	(672,862)	(21,782,225)	(21,782,225)	(24,481,204)	-	2,698,978
Non-Cash Working Capital Changes	1,796,780	1,796,001	1,499,753	780	297,027	(350,377)	(349,763)	(3,616,956)	(614)	3,266,580	(829,004)	0	1,348,501	(829,004)	(2,177,505)
<b>Net Cash Provided by (Used in) Operating Activities</b>	<b>4,259,307</b>	<b>4,557,320</b>	<b>4,449,057</b>	<b>(298,013)</b>	<b>(189,750)</b>	<b>7,593,246</b>	<b>7,549,756</b>	<b>5,262,526</b>	<b>43,490</b>	<b>2,330,720</b>	<b>32,235,531</b>	<b>33,064,535</b>	<b>30,071,708</b>	<b>(829,004)</b>	<b>2,163,823</b>
<b>Cash Flows From Financing Activities</b>															
Capital Contributions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds New Borrowing	-	-	-	-	-	-	-	-	-	-	1,400,000	1,200,000	200,000	1,400,000	-
Interest Payments	-	-	-	-	-	-	-	-	-	-	(11,788,844)	(11,788,844)	(11,670,361)	-	(118,483)
Principal Payments	-	-	-	-	-	-	-	-	-	-	(3,342,077)	(3,342,077)	(2,514,642)	0	(827,435)
<b>Net Cash Provided by (Used in) Financing Activities</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(13,730,921)</b>	<b>(13,930,921)</b>	<b>(14,185,003)</b>	<b>200,000</b>	<b>454,082</b>
<b>Cash Flows from Capital and Related Activities</b>															
Non-Operating Income (Expenses)	-	-	(643,325)	-	643,325	-	-	(643,325)	-	643,325	(1,400,000)	(1,400,000)	(1,286,651)	0	(113,349)
Capital Expenditures, net	(722,298)	(721,358)	(192,720)	(939)	(529,578)	(1,302,907)	(1,389,826)	(736,451)	86,919	(566,457)	(15,191,000)	(15,191,000)	(12,705,520)	-	(2,485,480)
<b>Net Cash Provided By (Used In) Capital and Related Activities</b>	<b>(722,298)</b>	<b>(721,358)</b>	<b>(836,045)</b>	<b>(939)</b>	<b>113,747</b>	<b>(1,302,907)</b>	<b>(1,389,826)</b>	<b>(1,379,776)</b>	<b>86,919</b>	<b>76,868</b>	<b>(16,591,000)</b>	<b>(16,591,000)</b>	<b>(13,992,171)</b>	<b>0</b>	<b>(2,598,829)</b>
<b>Cash Flows From Investing Activities</b>															
Investments Converting To Cash	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Purchased Investments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Income	244,104	47	335	244,057	243,769	665,158	212,126	895	453,032	664,263	128,661	128,661	914,680	-	(786,019)
<b>Net Cash Provided By (Used In) Investing Activities</b>	<b>244,104</b>	<b>47</b>	<b>335</b>	<b>244,057</b>	<b>243,769</b>	<b>665,158</b>	<b>212,126</b>	<b>895</b>	<b>453,032</b>	<b>664,263</b>	<b>128,661</b>	<b>128,661</b>	<b>914,680</b>	<b>-</b>	<b>(786,019)</b>
<b>FUND NET CASH FLOWS</b>	<b>3,781,113</b>	<b>3,836,009</b>	<b>3,613,348</b>	<b>(54,896)</b>	<b>167,765</b>	<b>6,955,497</b>	<b>6,372,056</b>	<b>3,883,645</b>	<b>583,441</b>	<b>3,071,852</b>	<b>2,042,271</b>	<b>2,671,275</b>	<b>2,809,215</b>	<b>(629,003)</b>	<b>(766,943)</b>
<b>DEBT SERVICE RATIO</b>															
<b>Debt Service Ratio (Indenture Based)</b>															
User Charges	4,034,363	4,101,420	3,783,183	(67,057)	251,180	11,932,712	11,692,709	11,603,738	240,003	328,974	50,680,860	50,680,860	46,757,244	-	3,923,616
Operating Expenses (Cash Based)	(2,172,035)	(1,944,705)	(1,847,802)	(227,330)	(324,233)	(4,897,513)	(4,872,267)	(4,251,838)	(25,246)	(645,675)	(21,782,225)	(21,782,225)	(18,663,768)	-	(3,118,457)
Interest Income	244,104	47	335	244,057	243,769	665,158	212,126	895	453,032	664,263	128,661	128,661	914,680	-	(786,019)
Annual Lease Payment (City)	(116,667)	(116,667)	(107,221)	-	(9,446)	(350,000)	(350,000)	(321,663)	-	(28,337)	(1,400,000)	(1,400,000)	(1,286,651)	0	(113,349)
Non-Operating Revenues (Expenses)	583,020	575,317	1,007,478	7,703	(424,457)	877,427	814,667	1,469,398	62,760	(591,971)	4,165,900	4,165,900	6,447,167	-	(2,281,267)
<b>Cash Available For Debt Service</b>	<b>2,572,786</b>	<b>2,615,413</b>	<b>2,835,974</b>	<b>(42,627)</b>	<b>(263,188)</b>	<b>8,227,785</b>	<b>7,497,235</b>	<b>8,500,530</b>	<b>730,550</b>	<b>(272,746)</b>	<b>31,793,196</b>	<b>31,793,196</b>	<b>34,168,672</b>	<b>0</b>	<b>(2,375,476)</b>
Interest Paid	982,404	982,404	2,917,590	-	(1,935,187)	2,947,211	2,947,211	2,917,590	-	29,621	11,788,844	11,788,844	11,670,361	-	118,483
Debt Retirement (Principal Payments)	278,506	835,519	628,661	(557,013)	(350,154)	835,519	835,519	628,661	-	206,859	3,342,077	3,342,077	2,514,642	(0)	827,435
<b>Total Debt Service</b>	<b>1,260,910</b>	<b>1,817,923</b>	<b>3,546,251</b>	<b>(557,013)</b>	<b>(2,285,341)</b>	<b>3,782,730</b>	<b>3,782,730</b>	<b>3,546,251</b>	<b>-</b>	<b>236,480</b>	<b>15,130,921</b>	<b>15,130,921</b>	<b>14,185,003</b>	<b>(0)</b>	<b>945,918</b>
<b>Debt Service Ratio</b>	<b>2.04</b>	<b>1.44</b>	<b>0.80</b>	<b>0.60</b>	<b>1.24</b>	<b>2.18</b>	<b>1.98</b>	<b>2.40</b>	<b>0.19</b>	<b>(0.22)</b>	<b>2.10</b>	<b>2.10</b>	<b>2.41</b>	<b>0.00</b>	<b>(0.31)</b>

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

**STATEMENTS OF ACTIVITIES**

**Operating Revenues:**

User Charges  
Connection & System Charges  
Other Miscellaneous Revenues

**Total Operating Revenues**

**Operating Expenses:**

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

**Total Operating Expenses**

**Net Operating Profit**

**Non-Operating Income (Expense)**

Interest Income  
Interest (Expense)  
Other Miscellaneous

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

**Net Income (Loss)**

**CASH FLOW STATEMENT**

**Cash Flows From Operating Activities**

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

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

**Cash Flows From Financing Activities**

Capital Contributions  
Proceeds New Borrowing  
Interest Payments  
Principal Payments

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

**Cash Flows from Capital and Related Activities**

Non-Operating Income (Expenses)  
Capital Expenditures, net

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

**Cash Flows From Investing Activities**

Investments Converting To Cash  
Purchased Investments  
Interest Income

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

**FUND NET CASH FLOWS**

City Division			
Actual	Q1 FC	FC Var	Comments
11,932,712	11,692,709	240,003	Higher industrial, commercial, and residential revenue volumes partially offset by lower municipal revenues and lower purchased water revenues
855,644	811,023	44,620	
21,783	3,644	18,140	
<b>12,810,139</b>	<b>12,507,376</b>	<b>302,763</b>	<b>Higher user charges along with higher system and miscellaneous revenues</b>
2,717,164	2,682,092	(35,073)	Higher labor charged in
485,280	452,536	(32,745)	Higher internal services allocated in
706,209	750,343	44,133	
651,524	469,487	(182,038)	Higher purification chemicals and higher distribution and transmission supplies
306,338	253,400	(52,937)	Higher compliance spending
-	-	-	
1,546,192	1,512,296	(33,896)	
30,996	264,410	233,413	Lower spending on major maintenance projects
-	-	-	
<b>6,443,705</b>	<b>6,384,563</b>	<b>(59,142)</b>	<b>Higher overall discretionary spending along with higher D&amp;A</b>
<b>6,366,434</b>	<b>6,122,813</b>	<b>243,621</b>	<b>Higer operating revenues partially offset by higher operating expenses</b>
665,158	212,126	453,032	
(4,227,459)	(4,389,491)	162,031	
-	-	-	
<b>(3,562,301)</b>	<b>(4,177,365)</b>	<b>615,064</b>	<b>Higher interest income along with lower interest expense</b>
<b>2,804,133</b>	<b>1,945,448</b>	<b>858,685</b>	<b>Higher net operating income further aided by favorable financial activity</b>

12,810,139	12,507,376	302,763	
(4,866,516)	(4,607,857)	(258,659)	
(350,377)	(349,763)	(614)	
<b>7,593,246</b>	<b>7,549,756</b>	<b>43,490</b>	<b>Higher net operating income</b>
-	-	-	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
(1,302,907)	(1,389,826)	86,919	
<b>(1,302,907)</b>	<b>(1,389,826)</b>	<b>86,919</b>	
-	-	-	
-	-	-	
665,158	212,126	453,032	
<b>665,158</b>	<b>212,126</b>	<b>453,032</b>	<b>Higher interest income</b>
<b>6,955,497</b>	<b>6,372,056</b>	<b>583,441</b>	<b>Higher cash from operations along with higher interest income</b>

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

	Suburban Water				Suburban Wastewater				City Division				Total			
	3/31/2023 Actual	2023 Forecast	2023 Budget	2022 Actual	3/31/2023 Actual	2023 Forecast	2023 Budget	2022 Actual	3/31/2023 Actual	2023 Forecast	2023 Budget	2022 Actual	3/31/2023 Actual	2023 Forecast	2023 Budget	2022 Actual
Cash																
Operating																
Unrestricted	3,293,268	8,188,535	7,075,935	5,207,096	604,806	1,688,617	4,964,460	900,454	17,641,836	11,050,286	23,660,027	9,008,015	20,831,043	20,927,438	35,700,423	15,115,564
Restricted	-	-	-	-	-	-	-	-	19,063,084	25,438,613	18,916,156	25,794,847	19,063,084	25,438,613	18,916,156	25,794,847
Total Operating	3,293,268	8,188,535	7,075,935	5,207,096	604,806	1,688,617	4,964,460	900,454	36,704,919	36,488,899	42,576,183	34,802,862	39,894,126	46,366,051	54,616,578	40,910,412
Capital																
Unrestricted	7,208,920	257,425	319,718	257,425	9,711,569	6,862,722	5,955,385	6,862,722	3,402,169	3,022,601	3,022,601	3,022,601	20,322,658	10,142,748	9,297,704	10,142,748
Restricted	-	-	-	-	339,206	338,677	338,360	338,677	7,531,437	7,500,035	7,500,035	7,500,035	7,870,643	7,838,712	7,838,396	7,838,712
Total Capital	7,208,920	257,425	319,718	257,425	10,050,775	7,201,399	6,293,745	7,201,399	10,933,607	10,522,636	10,522,636	10,522,636	28,193,301	17,981,461	17,136,099	17,981,461
Other Restricted																
Debt Reserves	1,671,697	1,656,568	1,648,569	1,656,568	-	-	-	-	32,621,717	28,335,482	28,976,677	27,979,247	34,293,414	29,992,050	30,625,246	29,635,815
Escrow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Other Restricted	1,671,697	1,656,568	1,648,569	1,656,568	-	-	-	-	32,621,717	28,335,482	28,976,677	27,979,247	34,293,414	29,992,050	30,625,246	29,635,815
Total Cash	12,173,884	10,102,528	9,044,222	7,121,089	10,655,581	8,890,016	11,258,205	8,101,853	80,260,243	75,347,017	82,075,496	73,304,746	102,380,841	94,339,561	102,377,924	88,527,688
Investments																
Operating																
Unrestricted	1,933,216	1,944,885	1,975,123	1,944,885	6,874,700	8,866,269	6,977,548	8,866,269	-	-	-	-	8,807,915	10,811,154	8,952,671	10,811,154
Restricted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Operating	1,933,216	1,944,885	1,975,123	1,944,885	6,874,700	8,866,269	6,977,548	8,866,269	-	-	-	-	8,807,915	10,811,154	8,952,671	10,811,154
Capital																
Unrestricted	1,026,371	1,000,184	1,000,000	1,000,184	-	-	-	-	-	-	-	-	1,026,371	1,000,184	1,000,000	1,000,184
Restricted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Capital	1,026,371	1,000,184	1,000,000	1,000,184	-	-	-	-	-	-	-	-	1,026,371	1,000,184	1,000,000	1,000,184
Other Restricted																
Debt Reserves	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Escrow	545,926	218,888	295,372	218,888	56,656	-	-	-	32,090	32,090	-	32,090	634,672	250,978	295,372	250,978
Total Other Restricted	545,926	218,888	295,372	218,888	56,656	-	-	-	32,090	32,090	-	32,090	634,672	250,978	295,372	250,978
Total Investments	3,505,513	3,163,957	3,270,496	3,163,957	6,931,356	8,866,269	6,977,548	8,866,269	32,090	32,090	-	32,090	10,468,958	12,062,316	10,248,043	12,062,316
Total Cash and Investments	15,679,397	13,266,485	12,314,718	10,285,046	17,586,937	17,756,285	18,235,753	16,968,122	80,292,332	75,379,107	82,075,496	73,336,835	112,849,799	106,401,877	112,625,967	100,590,003
Summary																
Cash																
Unrestricted	10,502,188	8,445,960	7,395,653	5,464,521	10,316,375	8,551,339	10,919,845	7,763,176	21,044,005	14,072,887	26,682,628	12,030,616	41,153,701	31,070,186	44,998,126	25,258,313
Restricted	1,671,697	1,656,568	1,648,569	1,656,568	339,206	338,677	338,360	338,677	59,216,238	61,274,130	55,392,868	61,274,130	61,227,140	63,269,375	57,379,797	63,269,375
Total Cash	12,173,884	10,102,528	9,044,222	7,121,089	10,655,581	8,890,016	11,258,205	8,101,853	80,260,243	75,347,017	82,075,496	73,304,746	102,380,841	94,339,561	102,377,924	88,527,688
Investments																
Unrestricted	2,959,587	2,945,069	2,975,123	2,945,069	6,874,700	8,866,269	6,977,548	8,866,269	-	-	-	-	9,834,286	11,811,338	9,952,671	11,811,338
Restricted	545,926	218,888	295,372	218,888	56,656	-	-	-	32,090	32,090	-	32,090	634,672	250,978	295,372	250,978
Total Investments	3,505,513	3,163,957	3,270,496	3,163,957	6,931,356	8,866,269	6,977,548	8,866,269	32,090	32,090	-	32,090	10,468,958	12,062,316	10,248,043	12,062,316
Total Cash and Investments	15,679,397	13,266,485	12,314,718	10,285,046	17,586,937	17,756,285	18,235,753	16,968,122	80,292,332	75,379,107	82,075,496	73,336,835	112,849,799	106,401,877	112,625,967	100,590,003

# CERTIFICATES OF DEPOSIT

March 2023

Fund	Bank	Location	Gross Amount	Date of Purchase	Date Due	Net Rate %
LLRI CR	Vystar CU	Jacksonville, FL	144,000.00	3/10/23	3/10/25	5.000
Basin Street	Vystar CU	Jacksonville, FL	99,000.00	3/10/22	3/10/25	5.000
Cons Wtr (2)	Sandy Spring Bank	Olney, MD	240,000.00	3/10/23	3/10/25	5.100
Cons Wtr (2)	Liberty FCU	Evansville, IN	249,000.00	3/17/23	3/17/25	5.050

## DEVELOPMENT ACTIVITY

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

7034 Ambassador Drive -Warehouse, UMT  
Macungie Crossings Home Depot, LMT  
8323/8449 Congdon Hill Drive, 2 industrial lots with warehouses, LMT  
ABE Doors & Windows Redevelopment, 1 commercial lot, LMT  
Chick-Fil-A Building redesign existing water line staying  
Estates at Maple Ridge, Water main extension-UMiIT  
Fields at Indian Creek, Phases 4 & 5, 86 residential units (sfd), water and sewer, UMiIT & Emmaus  
Fields at Brookside Water Main Re Route. 66 Lots  
Home Depot Sub Lot Condo unit LMT  
Kohler Tract, 123 residential lots (sfa), water and sewer, UMiIT  
Lehigh Hills, Lot 5 Phase 2, 240 residential units (sfd.), UMT  
Lehigh Hills Townhouses, 24 townhouse units (sfa), UMT  
Mountain View Estates, 27 residential units (sfd), LMT  
Posh Properties 4316,4320,4330,4344 Hamilton Blvd LMT, day care-self storage 4 lots water  
Parkland Crossings Main Extension 144 Town homes UMT  
Sauerkraut Lane Extension, Roadway & water line extension, LMT  
West Hills Business Center Lot H, 1 commercial lot, WeisT  
Green Hills Commerce Center 3 Possible Water Main Extension/Change of plans UMT  
3369 Rt 100 Neighborhood Hospital & Medical Offices, 1 commercial lot, LMT  
Guardian Self Storage Main Extension 1 commercial lot,LMT  
749 Route 100,UMT

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

2619 Grove Street Sewer Main Extension,Washington Township  
3400 Brookside Road, Indian Creek- 26 Single family homes-Main extension, LMT  
3952 Independence Drive,NW  
4002 Chestnut Street water main extension,Umilford  
Valley at Indian Creek 3510 Macungie Road 22 Single family homes-LMT  
5329-5347-5357 Hamilton Blvd., 1 commercial lot, LMT  
Advanced Health Care of Allentown, 1 commercial lot, LMT  
Air Products & Chemicals-Cetronia Road, 1 commercial lot, UMT  
ATAS International, 1 industrial lot, UMT  
Carriage East Residential Development, 11 residential units, (sfd), UMT  
Chick-Fil-A Redevelopment, LMT  
Estates at Maple Ridge, 30 residential units (sfd), UMiIT  
Fallbrooke Residential Subdivision, 90 sf residential units, UMT  
Fields at Brookside, water main relocation, LMT  
Glenlivet Drive West Main extension and subdivision  
Grant Street Townes, 18 Townhouse, WT  
Green Hills Commerce Center III, 1 commercial lot, UMT  
Hidden Meadows - Phase 3, 20 townhouse units, UMT  
Laurel Field, Phase 5, 25 townhouses, UMT  
Macungie Crossings Home Depot, LMT  
Madison Village at Penn's View, 66 manufactured homes, 1 lot, water and sewer, LynnT  
Mertztown Residential Subdivision, 264 sf units & 136 townhouse units, LMT  
Mosser Road Subdivision, 10 sf units, UMT  
Ridings at Parkland, Phase 2, 38 residential units (sfd), NWT  
Schoeneck Road, Lot 1, 1 lot, warehouse, LMT  
Self-Storage Facility, Cedarbrook Road – 1 Commercial Lot, LMT  
Spring Creek Properties, Lot 12, 1 lot, warehouse, LMT  
Spring Creek Estates 2022 LMT 2 lots, 2 6 unit Apt, 8 single family homes, water  
Taco Bell 248 Route 100-UMT  
The Annex at Fields at Indian Creek, 22 sf residential units, Emmaus Borough  
Towneplace Suites by Marriott, 91-room hotel, UMT  
Towns At Schaefer Run, 128 townhouse unit (sfa), UMT  
Trexler Center Unit 5-Wawa-LMT  
Twin Ponds 8739 Hamilton Blvd 22 Apts and 1 Daycare UMT  
Upper Macungie Community Center UMT commercial lot, water and Main Extension  
Woodmont Valley 2, 129 apartment units (former Allen Organ Co.) LMT-New

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

### **GPD**

949 Hamilton Hotel	949 W Hamilton	Allentown	20,673
DLP Grand Plaza Apartment Conversion	835 Hamilton St	Allentown	17,889
Entertainment Venue	939 Hamilton St	Allentown	4,401



Presented: April 24, 2023

<u>Critical Activities</u>	<u>System</u>	<u>Description</u>	<u>Mar-23</u>	<u>2023 Totals</u>	<u>2022 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	21.70	22.02	22.47	39.0
		Schantz Spring	7.35	7.36	6.90	9.0
		Crystal Spring	3.90	3.89	3.87	4.0
		Little Lehigh Creek	10.45	10.76	11.68	30.0
		Lehigh River	0.00	0.01	0.03	28.0
	Central Lehigh	Total	10.73	10.25	11.30	19.04 MGD Avg
		Feed from Allentown	7.46	7.22	7.20	7.0 MGD Avg 10.5 MGD Max
		Well Production (CLD)	3.27	3.03	4.10	8.54 MGD Avg
		Sum of all (12) other Suburban Water Systems	0.12	0.12	0.14	1.71 Sum of all wells
Wastewater Treatment		Kline's Island	31.72	31.75	32.61	40.0
		Pretreatment Plant	4.82	4.79	5.06	5.75 (design capacity)
		Sum of all (5) other Suburban WW Systems	0.19	0.19	0.20	0.36
			<b><u>Mar-23</u></b>	<b><u>2023 Totals</u></b>	<b><u>2022 Totals</u></b>	<b><u>2021 Totals</u></b>
Precipitation Totals (inches)			2.78	7.90	46.47	44.67
Compliance Reports Submitted to Allentown			39	92	277	280
Notices of Violation (NOVs)		(Allentown + Suburban)	0	0	4	3
Sanitary Sewer Overflows (SSOs)/Bypasses		(Allentown + Suburban)	1	5	18	26
Main Breaks Repaired		Allentown	0	1	34	20
		Suburban	0	3	15	14
Customer Service Phone Inquiries		(Allentown + Suburban)	657	2495	10,539	15,857
Water Shutoffs for Non-Payment		(Allentown + Suburban)	165	490	1,975	1,773
Injury Accidents		(Allentown + Suburban)	0	2	7	8
Emergency Declarations		Allentown	0	0	(3) @ \$386,225.43	0
		Suburban	0	0	(4) @ \$933,077.1	(1) @ \$48,000
<b><u>Significant Repairs/Upgrades:</u></b>						
As part of a capital project, Digester No. 2 was taken offline for cleaning.						
<b><u>Description of NOVs and/or SSOs:</u></b>						
One bypass occurred at Heidelberg Heights WWTP due to a storm producing 1.62" of rainfall. The bypass occurred from 3/4 to 3/7 and discharged 60,480 gallons.						
<b><u>Other Highlights:</u></b>						
On March 14, 2023, the EPA proposed drinking water standards for six per- and polyfluoroalkyl substances (PFAS). Lehigh County Authority is reviewing the proposed rule issued by EPA to determine the impact on its water systems.						

Lehigh County Authority  
System Operations Review - March 2023

Presented: April 24, 2023

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<u>Critical Activities</u>	<u>System</u>	<u>Description</u>	<u>Mar-23</u>	<u>2023 Totals</u>	<u>2022 Totals</u>
Wastewater Compliance	Allentown	Bypass	0	0	2
		Bypass Volume	0	0	369,704
		Permit Exceedances	0	0	1
		Sanitary Sewer Overflows	0	1	3
		COA Issued NOVs	0	0	1
		Regulatory Agency issued NOVs	0	0	0
	Arcadia	Bypass	0	0	0
		Bypass Volume	0	0	0
		Permit Exceedances	0	0	7
		Sanitary Sewer Overflows	0	0	0
		NOVs	0	0	0
	Heidelberg Heights	Bypass	1	2	8
		Bypass Volume	60,480	183,360	1,392,261
		Permit Exceedances	2	4	16
		Sanitary Sewer Overflows	0	0	0
		NOVs	0	0	0
	Lynn	Bypass	0	0	2
		Bypass Volume	0	0	472,000
		Permit Exceedances	0	0	7
		Sanitary Sewer Overflows	0	0	1
		NOVs	0	0	0
	Sand Spring	Bypass	0	0	0
		Bypass Volume	0	0	0
		Permit Exceedances	3	9	77
		Sanitary Sewer Overflows	0	0	0
		NOVs	0	0	1
	Wynnewood	Bypass	0	0	0
		Bypass Volume	0	0	0
		Permit Exceedances	0	0	4
		Sanitary Sewer Overflows	0	2	0
		NOVs	0	0	0
Water Compliance	Allentown	Boil Water Advisories	0	0	1
	Central Lehigh	Boil Water Advisories	0	0	2
	Suburban Water Systems	Boil Water Advisories	0	1	4