



LCA Main Office:
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Wescosville, PA 18106
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Agendas & Minutes Posted:
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LEHIGH COUNTY AUTHORITY

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BOARD MEETING AGENDA – August 22, 2022 – 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 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. 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

- *August 8, 2022 Board meeting minutes*

4. Public Comments

5. Action / Discussion Items:

FINANCE AND ADMINISTRATION

- *LCA Tapping Fee Policy Update & Suburban Water Division Tapping Fees (Approval) (**tan**) (digital Board packet, pages 6-114)*

WATER

- *Water Main Replacement Program Cycle 7 & 8 (Approval) (**blue**) (digital Board packet, pages 115-118)*

WASTEWATER

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

7. Monthly Financial Review (2nd Board meeting per month) (digital Board packet, pages 119-130) – **July report attached**

8. Monthly System Operations Overview (2nd Board meeting per month) (digital Board packet, page 131-136) – **July report attached**
9. Staff Comments
10. Solicitor's Comments
11. Public Comments / Other Comments
12. Executive Sessions
13. Adjournment

UPCOMING BOARD MEETINGS		
September 12, 2022	September 19, 2022	October 10, 2022

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

August 8, 2022

Notice of Preparation of Authority Meeting Minutes: Authority staff who are in attendance at each Authority Board meeting prepare a draft of the Minutes, which are subsequently distributed to all Board members for review. Board members may offer corrections prior to a vote of the full Board of Directors to approve the Minutes.

The Regular Meeting of the Lehigh County Authority Board of Directors was called to order at 12:01 p.m. on Monday, August 8, 2022, 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, Richard Bohner, Kevin Baker, Linda Rosenfeld, Norma Cusick, and Jeff Morgan were present for the duration of the meeting.

Solicitor Michael Gaul of KingSpry was present along with Authority Staff, Liesel Gross, Ed Klein, Chris Moughan, Andrew Moore, Phil DePoe, Susan Sampson, 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 to the agenda and no Executive Session is planned.

APPROVAL OF MINUTES

July 25, 2022, Meeting Minutes

On a motion by Richard Bohner, seconded by Linda Rosenfeld, the Board approved the minutes of the July 25, 2022, Board meeting as written (6-0).

PUBLIC COMMENTS

None.

ACTION AND DISCUSSION ITEMS

LCA Enterprise Resource Planning (ERP) Needs Assessment & Roadmap

Liesel Gross introduced Doug Spiers of Raftelis, the principal consultant who assisted with the Authority's assessment of its needs related to its Enterprise Resource Planning (ERP) software. The Authority is currently using Munis as its ERP software. The Authority sought a third-party review of the software's effectiveness and the Authority's use of the tools provided for financial and other administrative processes. The goal of the project was to develop a roadmap or path forward for process improvement, utilizing the existing Munis system or other systems to meet the Authority's needs. Mr. Spiers provided a brief presentation highlighting the current system strengths, weaknesses, and desired improvements. The recommended solution to meet the Authority's needs

is to continue to use the Munis ERP system, but to optimize its functionality through reconfiguration and the implementation of additional modules, which will increase the system's efficiency and functionality. This approach will allow for improved business processes, reporting transparency, and increased customer access through self-service tools. The project timeline was reviewed. Mr. Spiers highlighted the staff commitment needed to implement the project, which may require alternative or temporary staffing during the project schedule.

There was some discussion about the staffing arrangement and the practicality of hiring temporary staff to support the project. Liesel Gross noted that the 2023 Budget will include implementation costs, including staff support for this project. Additional discussion followed regarding the need for software customization versus using "off the shelf" functionality of the system. Chris Moughan and Mr. Spiers explained that the only customization planned for this project would be the configuration of Authority-specific accounting codes.

KISS System Modeling – 2021 Model Expansion and Calibration

Jim Shelton and Alexandra King from Arcadis were present and gave a presentation and overview of the Kline's Island Sewer System (KISS) hydraulic model calibration process. The model is a digital twin of the sewer system. The model incorporates physical attributes of the system and sewage flow characteristics. The model can be used to analyze how the system is currently performing and to predict future performance. Mr. Shelton explained the model's strengths and weaknesses, noting that the flow monitoring work completed in 2021 provided excellent data for the model calibration. The model is less accurate in predicting industrial flows and peak flows related to stream inundation during severe flooding events.

Mr. Shelton then explained the process to identify storm events that occurred between the year 2000 and 2021, for the purposes of further analyzing the alternatives that are being evaluated for the regional Act 537 Plan. He reviewed a lengthy list of potential alternatives that will be evaluated to provide long-term wastewater treatment and conveyance capacity for the KISS municipalities. Having specific storm events identified to use in the model will make the analysis more efficient. Once a final set of alternatives is selected, the model will be run using 24 years of weather data to determine future system performance. He also reviewed the Act 537 Plan development timeline, which runs through June 2025, when a final plan is expected to be submitted to the Pa. Department of Environmental Protection.

Liesel Gross stated that, due to the complexity of the project, Authority staff will continue to provide the Board updates on the Act 537 Plan development process. The Board thanked the staff for the ongoing updates and thanked Mr. Shelton and Ms. King for their work and presentation to the Board.

MONTHLY PROJECT UPDATES / INFORMATION ITEMS

Liesel Gross highlighted the August 2022 items that will be coming up at the next meeting.

STAFF COMMENTS

None.

SOLICITOR'S COMMENTS

None.

PUBLIC COMMENTS / OTHER COMMENTS

None.

EXECUTIVE SESSION

None.

ADJOURNMENT

There being no further business, the Chairman adjourned the meeting at 1:19 p.m.

Richard Bohner
Secretary



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MEMORANDUM

TO: LCA Board of Directors
FROM: Liesel Gross, Chief Executive Officer
DATE: August 14, 2022
RE: Tapping Fee Policies
Resolution 8-2022-1 Approving Suburban Water Tapping Fees

Lehigh County Authority (LCA) has a long history of providing water service in the growing areas of western Lehigh County. A significant portion of our Central Lehigh Division water system, serving large portions of Upper Macungie and Lower Macungie townships, was constructed through development activity over the course of the past 50 years.

Beginning in the early 1990s, laws were enacted to specify how tapping fees must be calculated to account for the cost of providing service as well as accommodating developer contributions to the construction of public water and sewer systems. Similarly, LCA adopted policies to implement these tapping fees. In the decades that followed, the tapping fee legislation was updated, most recently in 2003 with the passage of Act 57. Along the way, the Pa. Municipality Authorities Act (MAA) has also been amended to reflect various components of the tapping fee calculations and how they relate to developer-built systems.

In early 2022, LCA began work on its tapping fee calculations for the Suburban Water Division, which were last updated in 2012. In an effort to ensure compliance with the MAA and Act 57, we hired Keystone Alliance Consulting, Inc. to complete the calculations in a standard format that is already in use for LCA's Suburban Wastewater Division. Through the process of updating these tapping fees, several areas within LCA's Tapping Fee Policies were discovered to be outdated and requiring revision. Therefore, the documents attached to this memo are provided for Board review, with approval requested at the August 22, 2022 meeting.

Exhibit 1 – LCA Tapping Fee Policy update, redline version

Exhibit 2 – LCA Tapping Fee Policy update, clean version – Board approval requested

Changes to the LCA Tapping Fee Policy relate primarily to the updated description of the fee components and how reimbursements are handled for qualifying developer-installed facilities.

Exhibit 3 – LCA Distribution Fee Report – Board requested to rescind prior approval of this report

The 1992 Distribution Fee Report contains calculations specific to developer reimbursements that were appropriate at the time of this report's preparation, but are no longer applicable.

Exhibit 4 – LCA Main Extension Policy & Contribution Policy update – Board approval requested

The Main Extension Policy and Contribution Policy required minor updates to reflect the updated terms in the Tapping Fee Policy.

Resolution 8-2022-1 – Approving Suburban Water Tapping Fees – Board approval requested

Attachment A provides details of the tapping fee calculations completed by Keystone Alliance Consulting.

Exhibit 1



Lehigh County Authority

TAPPING FEE POLICY

ADOPTED

~~5 March 2009~~ August 22, 2022

INTRODUCTION

The ~~concept~~purpose of the Tapping Fee Policy is to ~~en~~assure that all property owners that receive a direct benefit from an Authority owned water or sanitary sewer system shall pay a fair share of the cost of providing that benefit, based on the demands their property will exert on the system and at the time they choose to take advantage of the benefit.

The Tapping Fee Policy's primary function is to be used as a guide for the collection and reimbursement of Tapping Fees. Because it is impossible to specify guidelines for every situation, the policy is written in general terms. The Authority reserves the right to change or waive the policy in response to changing or unique circumstances.

A. DEFINITIONS

~~1) ASSESSABLE MAIN(s): An AUTHORITY installed main that is part of an assessable project.~~

12) AUTHORITY: Lehigh County Authority.

23) DEVELOPMENT: A property, subdivision and/or a land development.

34) DWELLING UNIT: A room or group of rooms located within a residential building and forming a single habitable unit with facilities which are used or intended to be used for living, sleeping, cooking and eating by one family. A mobile home shall be considered a residential building.

45) INTERCEPTOR: A sanitary sewer pipeline which serves as a TRANSMISSION MAIN. Either term may be used in the case of sanitary sewer.

56) INTERNAL MAIN(s): A developer-installed main located in a public right of way or easement that abuts only the subject DEVELOPMENT's property and which was dedicated to the AUTHORITY for ownership and operation.

67) MFR: Multi-Family Residential.

78) TRANSMISSION MAINS(s): An AUTHORITY-installed main that in the AUTHORITY's opinion serves only a transmission function.

89) QUALIFYING DEVELOPER: The developer that paid for the installation of a QUALIFYING MAIN FACILITY.

910) QUALIFYING MAIN(s) FACILITY: ~~A developer-installed main that is not an INTERNAL MAIN or an~~ Facility or Facilities installed by a developer or at a developer's expense with the understanding and agreement of the AUTHORITY - ~~installed main that is not an ASSESSABLE MAIN nor a TRANSMISSION MAIN that the developer would be reimbursed via a Reimbursement Fee if additional customers were connected to said facility in the future.~~ For a main facility to be eligible as a QUALIFYING MAIN FACILITY for use with a ~~Distribution Type-2~~ Reimbursement Fee, all of the following conditions must be true:

- a) the QUALIFYING MAIN FACILITY was dedicated to the AUTHORITY on or after 1 January 1991; and
- b) the QUALIFYING MAIN FACILITY has not participated in the ~~Distribution Type-2~~ Reimbursement Fee program for more than ten (10) years from the date of dedication to the AUTHORITY; and
- c) the recovery of investment through the ~~Distribution Type-2~~ Reimbursement Fee program for the QUALIFYING MAIN FACILITY has

not exceeded the net cost of the QUALIFYING ~~MAIN~~FACILITY, as allowable under the terms of the Pennsylvania Municipality Authorities Act; and-

d) a formal Reimbursement Agreement has been prepared and signed by the Authority and the developer related to the QUALIFYING FACILITY prior to dedication to the Authority.

101) TAPPING FEES: A onetime fee, payable at the time of application for water or sewer service, which may be composed of, but not limited to, a Capacity Fee, ~~Special Purpose Fee and~~ a Distribution ~~Type 1 Fee, a Distribution Type 2 Fee or~~ a Collection Fee, a Special Purpose Fee, and a Reimbursement Fee.

12) ~~UPSIZING: Increasing the size of the main, at the AUTHORITY's cost, beyond what has been determined to be the size main required to provide service to the DEVELOPMENT.~~

B. TAPPING FEE COLLECTION

GENERAL:

- 1) TAPPING FEES shall only be charged for new permanent service connections, or in the case of sanitary sewer service may also be charged for increased usage by existing connections, to the AUTHORITY's system.
- 2) TAPPING FEES shall be paid prior to the institution of service or at the time a building permit is issued.
- 3) TAPPING FEES shall be based on either: (1) for water service, the size of the domestic service connection whether it is a direct connection at the main or a connection to a service line or (2) in the case of sanitary sewer service, the peak or average gallonage required by the applicant.
- 4) In a case where a water service connection provides both fire protection and domestic service and is metered through an AUTHORITY master meter (i.e. the domestic water service is not metered through a separate AUTHORITY meter), the TAPPING FEES shall be based on the size of the connection at the main.
- 5) The MFR TAPPING FEE shall apply only if all of the following conditions are true:
 - a) The DWELLING UNIT served must be a mobile home located within a mobile home park or an apartment or condominium within a multi-family dwelling.
 - b) In the case of water service, the owner of said mobile home park or multi-family dwelling must agree to meter each DWELLING UNIT served with an AUTHORITY owned meter.

- c) The service line to said mobile home or multi-family dwelling must be connected to a water main owned and operated by the AUTHORITY.
- 6) EXCEPTION: In the case where a service connection is made to a main that is part of an acquired system, the terms and conditions of the Acquisition Agreement shall supersede those of the Tapping Fee Policy, if different.

DISTRIBUTION FEES [WATER SERVICE ONLY]: ~~(DF-1 & DF-2)~~

A fee for water distribution related ~~water system~~ facilities, including, but not limited to, water distribution mains, manholes, fire hydrants, and water meters, as duly calculated in accordance with the Pennsylvania State Municipalities Authorities Act.

The Distribution Fee shall be charged in all cases, except when in the AUTHORITY's opinion the developer has contributed distribution related facilities that are equal to or greater than the value of the Distribution Fees that would have been collected from that DEVELOPMENT.

~~and pumping stations, as detailed in the "Distribution Fee Report".~~

~~Under no circumstance will an applicant for service pay both a Distribution Type 1 Fee and a Distribution Type 2 Fee for the same service connection.~~

- ~~1) A Distribution Type 1 Fee (DF-1), shall be charged when a service connection is made directly to a QUALIFYING MAIN, an ASSESSABLE MAIN or a TRANSMISSION MAIN, which was installed by someone other than the developer of that building lot.~~
- ~~2) A Distribution Type 2 Fee (DF-2) or portion of said fee, shall be charged only if both of the following conditions are true:~~
 - ~~a) the service connection is made to a DEVELOPMENT's INTERNAL MAIN and;~~
 - ~~b) an eligible QUALIFYING MAIN abuts all or part of that DEVELOPMENT.~~

~~If it has been determined that a DF-2 is applicable, the following shall apply:~~

- ~~a) the entire fee shall be charged when that DEVELOPMENT is abutted only by eligible QUALIFYING MAIN, installed by someone other than the developer.~~
- ~~b) otherwise, the fee charged, shall be apportioned, based on the length of the eligible QUALIFYING MAIN abutting that DEVELOPMENT, installed by someone other than the developer, to the total length of QUALIFYING MAIN and ASSESSABLE MAIN abutting that DEVELOPMENT.~~

~~NOTE: For the purpose of this section, where the AUTHORITY is holding improvement security for a QUALIFYING MAIN that has not been installed it shall be deemed installed but not an eligible QUALIFYING MAIN.~~

CAPACITY FEE [SANITARY SEWER AND WATER SERVICE]: ~~(CF)~~

A fee for capacity related facilities, including, but not limited to, source of supply, interceptors, treatment, pumping, transmission and storage facilities, as duly calculated in accordance with the Pennsylvania State Municipalities Authorities Act.

The Capacity Fee shall be charged in all cases, except when in the AUTHORITY's opinion the developer has contributed capacity related facilities that are equal to or greater than the value of the Capacity Fees that would have been collected from that DEVELOPMENT.

COLLECTION FEE [SANITARY SEWER SERVICE ONLY]: ~~(CLF)~~

A fee for collection related sewer system facilities, including, but not limited to sewer collection mains, manholes and pumping stations, as duly calculated in accordance with the Pennsylvania State Municipalities Authorities Act.

The Collection Fee shall be charged in all cases, except when in the AUTHORITY's opinion the developer has contributed collection related facilities that are equal to or greater than the value of the Collection Fees that would have been collected from that DEVELOPMENT. A CLF shall be charged when a service connection is made directly to a QUALIFYING MAIN, ASSESSABLE MAIN, TRANSMISSION MAIN or INTERCEPTOR, which was installed by someone other than the developer of that building lot.

SPECIAL PURPOSE FEE [SANITARY SEWER AND WATER SERVICE]:

A fee for water or sewer system facilities that serve only a subsection of customers, as duly calculated in accordance with the Pennsylvania State Municipalities Authorities Act. A Special Purpose Fee shall only be charged to new customers within that subsection.

REIMBURSEMENT FEE [SANITARY SEWER AND WATER SERVICE]:

A fee for water or sewer system facilities that were installed at the expense of a developer with the understanding and agreement of the Authority that the developer would be reimbursed if additional customers were connected to said facilities in the future, as duly calculated in accordance with the Pennsylvania State Municipalities Authorities Act.

A Reimbursement Fee shall only be charged to new customers connected to a QUALIFYING FACILITY, until such time as that particular Reimbursement Fee Program has been completed, and in accordance with the REIMBURSEMENT section of this Policy.

C. REIMBURSEMENT

The AUTHORITY shall reimburse 95% of any collected REIMBURSEMENT FEE to the associated QUALIFYING DEVELOPER, only as long as all the following conditions are still met.

1. It is within ten (10) years from the date of dedication of the QUALIFYING FACILITY to the AUTHORITY.
2. The recovery of investment through the Reimbursement Fee Program for the QUALIFYING FACILITY has not exceeded the net cost of the QUALIFYING FACILITY.

To qualify for reimbursement a QUALIFYING DEVELOPER must enter into an agreement with the AUTHORITY prior to the construction of any QUALIFYING FACILITY. Once construction is complete the QUALIFYING DEVELOPER must provide sufficient documentation of applicable costs to facilitate the calculation of the REIMBURSEMENT FEE for said QUALIFYING FACILITY, in accordance with the Pennsylvania State Municipalities Authorities Act.

When a REIMBURSEMENT FEE has been collected by the AUTHORITY, the QUALIFYING DEVELOPER will be notified by certified mail sent to the QUALIFYING DEVELOPER'S last known address. This shall be done within 30 days of the AUTHORITY's receipt of payment of the REIMBURSEMENT FEE. If the QUALIFYING DEVELOPER does not claim a reimbursement payment within 120 days after the mailing of the notice, the payment shall become the sole property of the AUTHORITY with no further obligation on the part of the AUTHORITY to refund the payment to the QUALIFYING DEVELOPER.

The AUTHORITY shall reimburse some or all of the DF-1, DF-2 or CLF to a QUALIFYING DEVELOPER, as specified in this section.

GENERAL:

When the AUTHORITY has contributed to the cost of a developer installed QUALIFYING MAIN for reasons other than UPSIZING, the AUTHORITY shall be entitled to recover its investment for purposes other than UPSIZING in that QUALIFYING MAIN through the DF-1, DF-2 and CLF before the QUALIFYING DEVELOPER.

~~DISTRIBUTION TYPE-1 FEE: (DF-1)~~

The AUTHORITY shall reimburse to the QUALIFYING DEVELOPER 95% of each DF-1 collected within ten years from the date of dedication to the AUTHORITY or up to the maximum amount allowed by Pennsylvania law, whichever occurs first. If the building lot is abutted by water mains installed by more than one entity, the connection point of the service shall determine who is to be reimbursed.

~~DISTRIBUTION TYPE-2 FEE: (DF-2)~~

~~Each QUALIFYING DEVELOPER that installed an eligible QUALIFYING MAIN shall be entitled to receive a portion of the DF-2 collected, which shall be based upon the fraction of length of the eligible QUALIFYING MAIN it installed abutting that DEVELOPMENT to the total length of eligible QUALIFYING MAIN abutting that DEVELOPMENT. The AUTHORITY shall reimburse to each QUALIFYING DEVELOPER, 95% of the portion that it is entitled to receive, collected within ten years from the date of dedication to the AUTHORITY or until the QUALIFYING DEVELOPER is reimbursed up to the NET COST of the eligible QUALIFYING MAIN it installed, whichever occurs first.~~

~~CAPACITY FEE: (CF)~~

~~The AUTHORITY shall not reimburse the CF, except where required by agreement.~~

~~COLLECTION FEE: (CLF)~~

~~The AUTHORITY shall reimburse to the QUALIFYING DEVELOPER 95% of each CLF collected within ten years from the date of dedication to the AUTHORITY or up to the maximum amount allowed by Pennsylvania law, whichever occurs first. If the building lot is abutted by sewer mains installed by more than one entity, the connection point of the service shall determine who is to be reimbursed.~~

Exhibit 2



TAPPING FEE POLICY

ADOPTED

August 22, 2022

INTRODUCTION

The purpose of the Tapping Fee Policy is to ensure that all property owners that receive a direct benefit from an Authority owned water or sanitary sewer system shall pay a fair share of the cost of providing that benefit, based on the demands their property will exert on the system and at the time they choose to take advantage of the benefit.

The Tapping Fee Policy's primary function is to be used as a guide for the collection and reimbursement of Tapping Fees. Because it is impossible to specify guidelines for every situation, the policy is written in general terms. The Authority reserves the right to change or waive the policy in response to changing or unique circumstances.

A. DEFINITIONS

- 1) AUTHORITY: Lehigh County Authority.
- 2) DEVELOPMENT: A property, subdivision and/or a land development.
- 3) DWELLING UNIT: A room or group of rooms located within a residential building and forming a single habitable unit with facilities which are used or intended to be used for living, sleeping, cooking and eating by one family. A mobile home shall be considered a residential building.
- 4) INTERCEPTOR: A sanitary sewer pipeline which serves as a TRANSMISSION MAIN. Either term may be used in the case of sanitary sewer.
- 5) INTERNAL MAIN(s): A developer-installed main located in a public right of way or easement that abuts only the subject DEVELOPMENT's property and which was dedicated to the AUTHORITY for ownership and operation.
- 6) MFR: Multi-Family Residential.
- 7) TRANSMISSION MAIN(s): An AUTHORITY-installed main that in the AUTHORITY's opinion serves only a transmission function.
- 8) QUALIFYING DEVELOPER: The developer that paid for the installation of a QUALIFYING FACILITY.
- 9) QUALIFYING FACILITY: Facility or Facilities installed by a developer or at a developer's expense with the understanding and agreement of the AUTHORITY - that the developer would be reimbursed via a Reimbursement Fee if additional customers were connected to said facility in the future. For a facility to be eligible as a QUALIFYING FACILITY for use with a Reimbursement Fee, all of the following conditions must be true:
 - a) the QUALIFYING FACILITY was dedicated to the AUTHORITY on or after 1 January 1991; and
 - b) the QUALIFYING FACILITY has not participated in the Reimbursement Fee program for more than ten (10) years from the date of dedication to the AUTHORITY; and
 - c) the recovery of investment through the Reimbursement Fee program for the QUALIFYING FACILITY has not exceeded the net cost of the QUALIFYING FACILITY, as allowable under the terms of the Pennsylvania Municipality Authorities Act; and
 - d) a formal Reimbursement Agreement has been prepared and signed by

the Authority and the developer related to the QUALIFYING FACILITY prior to the dedication to the Authority.

- 10) TAPPING FEES: A onetime fee, payable at the time of application for water or sewer service, which may be composed of, but not limited to, a Capacity Fee, a Distribution or Collection Fee, a Special Purpose Fee, and a Reimbursement Fee.

B. TAPPING FEE COLLECTION

GENERAL:

- 1) TAPPING FEES shall only be charged for new permanent service connections, or in the case of sanitary sewer service may also be charged for increased usage by existing connections, to the AUTHORITY's system.
- 2) TAPPING FEES shall be paid prior to the institution of service or at the time a building permit is issued.
- 3) TAPPING FEES shall be based on either: (1) for water service, the size of the domestic service connection whether it is a direct connection at the main or a connection to a service line or (2) in the case of sanitary sewer service, the peak or average gallonage required by the applicant.
- 4) In a case where a water service connection provides both fire protection and domestic service and is metered through an AUTHORITY master meter (i.e. the domestic water service is not metered through a separate AUTHORITY meter), the TAPPING FEES shall be based on the size of the connection at the main.
- 5) The MFR TAPPING FEE shall apply only if all of the following conditions are true:
 - a) The DWELLING UNIT served must be a mobile home located within a mobile home park or an apartment or condominium within a multi-family dwelling.
 - b) In the case of water service, the owner of said mobile home park or multi-family dwelling must agree to meter each DWELLING UNIT served with an AUTHORITY owned meter.
 - c) The service line to said mobile home or multi-family dwelling must be connected to a water main owned and operated by the AUTHORITY.
- 6) EXCEPTION: In the case where a service connection is made to a main that is part of an acquired system, the terms and conditions of the Acquisition Agreement shall supersede those of the Tapping Fee Policy, if different.

DISTRIBUTION FEES [WATER SERVICE ONLY]:

A fee for water distribution related facilities, including, but not limited to, water distribution mains, manholes, fire hydrants, and water meters, as duly calculated in accordance with the Pennsylvania State Municipalities Authorities Act.

The Distribution Fee shall be charged in all cases, except when in the AUTHORITY's opinion the developer has contributed distribution related facilities that are equal to or greater than the value of the Distribution Fees that would have been collected from that DEVELOPMENT.

CAPACITY FEE [SANITARY SEWER AND WATER SERVICE]:

A fee for capacity related facilities, including, but not limited to, source of supply, interceptors, treatment, pumping, transmission and storage facilities, as duly calculated in accordance with the Pennsylvania State Municipalities Authorities Act.

The Capacity Fee shall be charged in all cases, except when in the AUTHORITY's opinion the developer has contributed capacity related facilities that are equal to or greater than the value of the Capacity Fees that would have been collected from that DEVELOPMENT.

COLLECTION FEE [SANITARY SEWER SERVICE ONLY]:

A fee for collection related sewer system facilities, including, but not limited to sewer collection mains, manholes and pumping stations, as duly calculated in accordance with the Pennsylvania State Municipalities Authorities Act.

The Collection Fee shall be charged in all cases, except when in the AUTHORITY's opinion the developer has contributed collection related facilities that are equal to or greater than the value of the Collection Fees that would have been collected from that DEVELOPMENT.

SPECIAL PURPOSE FEE [SANITARY SEWER AND WATER SERVICE]:

A fee for water or sewer system facilities that serve only a subsection of customers, as duly calculated in accordance with the Pennsylvania State Municipalities Authorities Act. A Special Purpose Fee shall only be charged to new customers within that subsection.

REIMBURSEMENT FEE [SANITARY SEWER AND WATER SERVICE]:

A fee for water or sewer system facilities that were installed at the expense of a developer with the understanding and agreement of the Authority that the developer would be reimbursed if additional customers were connected to said facilities in the future, as duly calculated in accordance with the Pennsylvania State Municipalities Authorities Act.

A Reimbursement Fee shall only be charged to new customers connected to a QUALIFYING FACILITY, until such time as that particular Reimbursement Fee Program has been completed, and in accordance with the REIMBURSEMENT section of this Policy.

C. REIMBURSEMENT

The AUTHORITY shall reimburse 95% of any collected REIMBURSEMENT FEE to the associated QUALIFYING DEVELOPER, only as long as all the following conditions are still met.

1. It is within ten (10) years from the date of dedication of the QUALIFYING FACILITY to the AUTHORITY.
2. The recovery of investment through the Reimbursement Fee Program for the QUALIFYING FACILITY has not exceeded the net cost of the QUALIFYING FACILITY.

To qualify for reimbursement a QUALIFYING DEVELOPER must enter into an agreement with the AUTHORITY prior to the construction of any QUALIFYING FACILITY. Once construction is complete the QUALIFYING DEVELOPER must provide sufficient documentation of applicable costs to facilitate the calculation of the REIMBURSEMENT FEE for said QUALIFYING FACILITY, in accordance with the Pennsylvania State Municipalities Authorities Act.

When a REIMBURSEMENT FEE has been collected by the AUTHORITY, the QUALIFYING DEVELOPER will be notified by certified mail sent to the QUALIFYING DEVELOPER'S last known address. This shall be done within 30 days of the AUTHORITY's receipt of payment of the REIMBURSEMENT FEE. If the QUALIFYING DEVELOPER does not claim a reimbursement payment within 120 days after the mailing of the notice, the payment shall become the sole property of the AUTHORITY with no further obligation on the part of the AUTHORITY to refund the payment to the QUALIFYING DEVELOPER.

Exhibit 3

DISTRIBUTION FEE REPORT

Accepted

March 17, 1992

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INTRODUCTION

The Distribution Type-1 or Distribution Type-2 Fee is a onetime capital recovery fee for distribution related facilities, including, but not limited to, distribution mains and pumping stations. The fee shall be equitable for all classifications and sizes of domestic service connections and shall be paid at the time application for water service is made.

DEFINITIONS

The following definitions have been added for this report. All other definitions may be found in the Tapping Fee Policy.

- 1) ALLOWABLE CONSTRUCTION COST: The construction cost of the QUALIFYING MAIN, calculated under the payment guidelines in the Authority's Construction Specifications.
- 2) NET COST.
 - a) When it relates to a developer-installed QUALIFYING MAIN, represents the ALLOWABLE CONSTRUCTION COST, less:
 - 1) the value of any AUTHORITY payment for UPSIZING and;
 - 2) the value of the DF-1 for all estimated EQUIVALENT $\frac{3}{4}$ " SERVICE line connections from tracts of land that are classified as "unsubdividable"
 - b) When it relates to a Authority-installed QUALIFYING MAIN, represents the ALLOWABLE CONSTRUCTION COST, less:
 - 1) the difference in cost between the QUALIFYING MAIN and the size main typically required for that zoning district based on the ratio of nominal pipe diameters and;
 - 2) the value of the DF-1 for all estimated EQUIVALENT $\frac{3}{4}$ " SERVICE line connections from tracts of land that are classified as unsubdividable"

- 3) EQUIVALENT 3/4" SERVICE: All water service sizes converted, based on their cross-sectional area, to an equivalent number of 3/4" services.

<u>SERVICE SIZE</u>	<u>EQUIVALENT 3/4" SERVICES</u>
3/4"	1.0
1"	1.8
1-1/2"	4.0
2"	7.1
3"	16.0
4"	28.4
6"	64.0
8"	113.8
10"	177.8

- 4) BASIC DF-2 CHARGE: The DF-2 charged for an EQUIVALENT 3/4" SERVICE.

DISTRIBUTION TYPE-1 FEE

A. BASIS:

As detailed in PA. ACT NO. 1990-203.

Additional information pertaining to the collection and reimbursement of the Distribution Type-1 Fee may be found in the Tapping Fee Policy.

DISTRIBUTION TYPE-2 FEE

A. BASIS:

In numerous cases the Authority as well as developers have installed main extensions at their expense that have benefited properties located along the route. These properties under our current Main Extension Policy contribute to the cost of that main through the Distribution Type-1 Fee (DF-1) only if a direct service connection to that main is made. On the other hand, if one of these properties is developed and service lines are connected to an INTERNAL MAIN, the developer does not contribute anything toward cost of the main that benefited his property. A Distribution Type-2 Fee (DF-2) is established to acknowledge the benefit to other properties resulting from an Authority or developer-financed water line extension and to allow the Authority or the developer to recover part of their investment in that extension.

B. APPLICABILITY:

The Distribution Type-2 Fee program shall be applicable for a QUALIFYING MAIN ("eligible QUALIFYING MAIN") if all of the following conditions are true:

- a) the QUALIFYING MAIN was dedicated to the AUTHORITY on or after January 1, 1991. (Any QUALIFYING MAIN dedicated prior to that date is not eligible for the program.)
- b) the QUALIFYING MAIN has not participated in the DF-2 program for more than ten years from the date of dedication to the AUTHORITY.
- c) the recovery of investment through the DF-2 program for the QUALIFYING MAIN has not exceeded the NET COST of the QUALIFYING MAIN.

C. Estimating The Number of EQUIVALENT 3/4" SERVICES:

To calculate the DF-2 it is necessary to estimate the number of EQUIVALENT 3/4" SERVICES that could connect to a eligible QUALIFYING MAIN.

To accomplish this, it is necessary to evaluate the subdivision potential of each tract of land that is benefited by an eligible QUALIFYING MAIN and, if applicable, using the average densities of subdivisions within the same zoning districts, zoning ordinances and other information, estimate the number of lots resulting from the subdivision of that tract.

Based on the zoning district in which they are located the estimated number of lots are converted into EQUIVALENT 3/4" SERVICES by multiplying lots in a residential or agricultural district by 1 and lots in all other zoning districts by 2.7. (LCA's customer records indicate that the average non-residential service equates to 2.7 EQUIVALENT 3/4" SERVICES)

D. CALCULATION:

New DF-2 Charges shall be calculated or updated typically each calendar year.

1) Calculation Data Base:

- a) The data base used to calculate the Distribution Type-2 Fee shall be composed of all the eligible QUALIFYING MAINS.
- b) The data base shall be updated each calendar year adding all new eligible QUALIFYING MAINS to the base and deleting the QUALIFYING MAINS that are no longer eligible. The data base shall not be adjusted for inflation.
- c) The estimated number of EQUIVALENT 3/4" SERVICES in the data base shall be adjusted on a calendar year basis to reflect new information such as DEVELOPMENT plan submittals and actual connections.

The data base used for the calendar year 1991, the initial data base, is listed below. Additional information about these eligible QUALIFYING MAINS can be found in Table 1.

<u>Qualifying Main Name</u>	<u>Township</u>	<u>Type</u>	<u>Dedication Date</u>
Brandywine I	LMT	Residential	3/91
Red Maple Acres	UMT	Residential	10/91
Pointe West, A, Weis.	WEI	Residential	6/91
LCA Project No.W89-4 16" Trans. Main	UMT/LMT	N/A	5/91

2) Formula for Establishing the BASIC DF-2 CHARGE:

The numerator equals the NET COST.

The denominator equals:

- a) if applicable, the total number of EQUIVALENT 3/4" SERVICES within the DEVELOPMENTS that installed the eligible QUALIFYING MAINS, plus;
- b) the total number of estimated EQUIVALENT 3/4" SERVICES from all tracts of land that abut the eligible QUALIFYING MAINS, minus;
- c) the number of estimated EQUIVALENT 3/4" SERVICES from single service connections from tracts of land that are classified as unsubdividable, that abut the eligible QUALIFYING MAINS.

Therefore using the information as shown in Table 2, The BASIC DF-2 CHARGE was calculated as follows:

$$\$393,628 / 1282 = \$ 307.00$$

The DF-2 charged for larger services would be indicated in Table 3, the initial DF-2 Rate Schedule.

Additional information pertaining to the collection and reimbursement of the Distribution Type-2 Fee may be found in the Tapping Fee Policy.

This is Table 1, but it is hopelessly messed up by the scanning process – since it is specific to a particular time, it wasn't reproduced unless it needs to be.

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Table 2:

Establish an Average System Wide Basic DF-2 Charge.

Eligible Qualifying Main Name	Net Cost	Net Est. Number of Equivalent 3/4" Conn.	Basic DF-2 Charge
Brandywine Village I	\$250,637	743.0	\$337.33
Red Maple Acres	\$28,454	242.6	\$117.29
Pointe West. A. Weis.	\$28,384	10.0	\$2,838.41
16" Trans. Main LCA project No. W89-4	\$86,153	286.4	\$300.81
*DATA BASE TOTALS	\$393,628	1282	
*BASIC 1992 / 1993 DF-2 CHARGE			\$307.00 (1)

(1) Rounded to nearest dollar.

TABLE: 3

Initial Distribution Type-2 Fee Schedule of Charges.

Service Size	Equiv. 3/4', Services Multiplier (1)	DF-2 Fee (2)
3/4"	1.0	\$307.00
1"	1.8	\$553.00
1-1/2"	4.0	\$1,228.00
2"	7.1	\$2,180.00
3"	16.0	\$4,912.00
4"	28.4	\$8,719.00
6"	64.0	\$19,648.00
8"	113.8	\$34,937.00
10"	177.8	\$54,585.00

(1) Rounded to nearest tenth.

(2) Rounded to nearest dollar.

Exhibit 4



Lehigh County Authority

MAIN EXTENSION POLICY

ADOPTED

~~27 September 2007~~ August 22, 2022

INTRODUCTION

The Main Extension Policy's ~~primary function~~ is to be used as a guide for the construction of main extensions to sewer and water systems owned by Lehigh County Authority ("the Authority"). It should be noted that there are municipalities in which the Authority owns the sewer or water system, but not both systems; ~~clearly~~ this policy will apply only to the Authority-owned system. The Authority reserves the right to change or waive the terms of the policy in response to changing or unique circumstances.

MAIN EXTENSION POLICY

GENERAL

1. A main extension shall consist of one or more new mains and appurtenances which are to be owned by the Authority upon final acceptance, including mains lying wholly within a new development. Words used in this Policy shall have the same definition as stated in the Authority's Rules and Regulations for Water Service or Rules and Regulations for Sewerage Service, whichever is applicable, and the Authority's Tapping Fee Policy.
2. Any person desiring water or sewer service shall apply to the Authority for such service to a specific development or property. The Authority will determine whether a main extension is required, in which case this policy shall apply. The person desiring service, for which a main extension is required, shall be designated as Developer for purposes of this policy.
3. The Developer shall bear the full cost of a main extension, including engineering, construction, inspection, administrative and legal costs, except as stated in the Authority's Contribution Policy, attached hereto as Appendix "A".
4. In lieu of requiring construction of a main extension, the Authority may, at its option, require the Developer to contribute an amount of money, or other security acceptable to the Authority, equivalent to the estimated current construction costs. The amount of this contribution shall be determined by the Authority and shall be the estimated project cost, including engineering, construction, inspection, administrative and legal costs, of the appropriate main(s). Payment of such a contribution shall be made prior to the issuance of the *Certificate of Final Acceptance* by the Authority for any other main extensions being constructed by Developer. If money is used as Developer's contribution, it shall be placed in a separate, interest-bearing escrow account in the Authority's name only until the main is constructed.

If the main extension is not constructed within ten (10) years from the date of the contribution, the Authority shall return the contribution, with interest as earned on an escrow account when such an account has been established, to the Developer. The Authority shall be required to notify by certified mail, to the last known address, the Developer for whose benefit such reimbursement shall apply within thirty days of the expiration of the ten-year period. In the event that the Developer has not claimed a reimbursement payment within one hundred twenty (120) days of the mailing of the notice, the payment shall revert to and become the sole property of the Authority with no further obligation on the part of the Authority to refund the payment to the Developer.

If the main extension is to be constructed within the ten-year period, the Developer shall receive notification from the Authority that such construction is planned and the

time frame for such construction. The Developer shall have the option to design and construct the subject main extension within the same timeframe as planned by the Authority, either itself or through a subcontractor approved by the Authority, which approval shall not be unreasonably withheld, in accordance with the Authority's then-current rules and regulations, policies and specifications. If the Developer chooses to do the construction, it must give notice to the Authority of its choice within twenty (20) days of receiving the Authority's notice, and when an escrow account was established, the Authority will hold the escrowed sums as performance security for the construction until Final Completion, at which time the Authority will return all excess escrowed funds.

5. Capital recovery fees and other special charges shall be applicable to new service in accordance with the Authority's *Rules and Regulations for Water Service* or *Rules and Regulations for Sewerage Service*, whichever is applicable, and its *Tapping Fee Policy* current at the time the appropriate ~~D~~ developer's water or sewer system agreement is executed.
6. If the Authority increases the size of a main extension beyond the size determined by the Authority to be required for service to the development, including fire protection, or the Authority contributes to a main extension in accordance with a municipal service agreement or for other purposes, the Authority will bear the increased cost based on the terms established in its *Contribution Policy*.

PLAN SUBMISSION

7. The Developer shall submit plans of the proposed main extension to the Authority for approval, as well as any subsurface investigation required by any government entities.
8. Prior to any plan review by the Authority, the Developer shall complete an application for plan review and pay to the Authority the then-current non-refundable plan review fee or plan review deposit, as applicable. The Developer shall reimburse the Authority for all costs incurred should the plan review deposit balance be less than the cost of plan review. Each deposit account will be reviewed periodically during periods of activity. An additional deposit will be required before the review will continue if the balance is deemed by the Authority to be insufficient to complete the review. Within forty-five (45) days after final plan approval by the Municipality or the withdrawal of the plan by the Developer, any unexpended balance of the deposit will be refunded to the Developer.

DESIGN REQUIREMENTS

9. Main extensions shall be designed and constructed in accordance with all applicable Authority policies and requirements, including without limitation the *Rules and Regulations for Water Service* or *Rules and Regulations for Sewerage Service* and the *General Specifications for Water or Sewer System Construction*, whichever are applicable.

10. To provide for continual improvement to the Authority systems as well as enhanced future service, all to the benefit of the public and Authority customers, main extensions shall be carried to the limits of the subject property along all public roads that abut the property (the "development") or in other locations approved by the Authority, which extensions may not necessarily be located on the same side of a public road as the property.

- a) In the case of a property with one existing single-family residential dwelling on a lot smaller than four acres and with frontage on at least two existing public roads that the owner, or a party with an equitable ownership interest, proposes to subdivide into no more than three lots (including one lot with the existing dwelling), the owner shall construct the main to the limits of the property along all public roads that abut the property or in other locations approved by the Authority at the owner's cost; however, the Authority shall contribute one-third of the cost in accordance with the Authority's Contribution Policy. In addition, if an existing Authority main does not abut the property, the owner shall also pay the lesser of (a) the requirements for such extensions in the Authority water or sewer service agreement with the pertinent municipality or if there is no such applicable agreement, the cost of thirty (30) feet of eight-inch main for each lot or (b) the cost of a main extension from the subject parcel's boundary to the point of connection with the closest Authority water or sewer main, as applicable. The Authority's obligation to pay any costs under this section shall be subject to its determination that the extension is financially feasible.

All other provisions within this Policy shall be applicable to such main extensions, including payment of any applicable capital recovery fees, unless specifically changed by the language of this section. The following conditions shall also apply:

- i) ~~There shall be no reimbursement of tapping fees collected for connections by others to the main until the Authority recovers its contribution and the carrying cost thereon.~~ Any reimbursement of construction costs to be paid to the Developer shall be in accordance with the Authority's Tapping Fee Policy; and
- ii) A covenant shall be executed by the owner and be recorded with the Recorder of Deeds indicating that if any of the lots in the subdivision is further subdivided or the usage changes from a single-family residential dwellings within ten (10) years of the date of the developer's water or sewer system agreement, the then current owner of the lot or lots that are either further subdivided or have changed usage shall be liable to reimburse the monies the Authority contributed in accordance with these provisions of §10(a).

All residences on lots after the subdivision, including the original single-family residential dwelling, shall connect to the Authority system and continue to use the Authority's services.

- b) In the case of a property that has only one existing or proposed single-family residential dwelling and is not the result of a subdivision within the past ten (10) years, in lieu of the responsibility to construct a main extension to the limits of the property along all public roads that abut the property or other locations approved by the Authority, the owner shall only pay all costs to extend the main to the point that is perpendicular to the structure to be served or one-half of the distance across the frontage of the property where mains would otherwise be required by the Authority, whichever distance is greater. The following conditions also apply:
- i) Any reimbursement of construction costs to be paid to the Developer shall be in accordance with the Authority's Tapping Fee Policy~~There shall be no reimbursement of tapping fees collected for connections by others to the main constructed by the owner;~~ and
 - ii) A covenant shall be executed for recording with the Lehigh County repository for realty documents indicating if within ten (10) years of the date of the developer's water or sewer system agreement the property is subdivided or the usage changes from a single-family residential dwelling, the owner shall be liable to pay the difference between the fees and costs that would have been otherwise applicable under the provisions of this *Main Extension Policy* and those applicable under this §10(b); and
 - iii) The property owner shall provide the Authority with an easement for the portion of the main extension to the limits of the property not constructed by the property owner in case the main extension needs to be constructed in the future.

In addition, if an existing Authority main does not abut the property, the owner shall also pay the lesser of (a) the requirements for such extensions in the Authority water or sewer service agreement with the pertinent municipality or if there is no such applicable agreement, the cost of thirty feet of eight-inch main for each lot or (b) the cost of a main extension to the point of connection with the closest Authority water or sewer main, as applicable.

If the Authority asks the owner to construct facilities beyond those required by the above guidelines, the Authority shall reimburse the owner for all costs exceeding the above guidelines; if the Authority constructs the facilities, the owner shall pay the Authority the amounts determined in accordance with the above guidelines. For purposes of this section, cost shall include engineering, administrative, construction and review and inspection costs. The Authority's obligation to pay any costs under this section shall be subject to its determination that the extension is financially feasible.

All other provisions within this Policy shall be applicable to main extensions subject to this subsection, including payment of any applicable capital recovery fees, unless specifically changed by the language of this section.

c) In the case of a property where the use of the property is for non-commercial and non-residential purposes, and the property for which service is requested is owned or supported (partially or wholly) by a local taxing entity - specifically only for properties owned by public school districts, municipalities, counties and fire companies (unless the latter is only functioning as a social organization) - and where the cost of the main extension to the limits of the property along all public roads that abut the property or other locations approved by the Authority does not exceed \$50,000.00, the following conditions shall apply:

- i) The property owner's main extension responsibility per this §10(c) shall be limited to all costs to extend the main to the point that is perpendicular to the structure to be served or one-half of the distance across the frontage of the property where mains would otherwise be required by the Authority, whichever distance is greater.
- ii) Any reimbursement of construction costs to be paid to the Developer shall be in accordance with the Authority's Tapping Fee Policy. ~~There shall be no reimbursement of tapping fees collected for connections by others to the main constructed by the owner;~~
- iii) If the use of the property changes to a non-exempt use or the property is sold to an owner other than a public school district, municipality, county or fire company (where the fire company is not functioning only as a social organization), then the construction cost of the remaining portion of the main extension to the limits of the property along all public roads that abut the property or other locations approved by the Authority, which was not constructed by the property owner, is due to the Authority at the time of such change; a notice of record will be filed with the Lehigh County repository for realty documents to provide evidence of this obligation.
- iv) The property owner shall provide the Authority with an easement for the portion of the main extension to the limits of the property not constructed by the property owner in case the main extension needs to be constructed in the future.

All other provisions within this Policy shall be applicable to such main extensions subject to this subsection, including payment of any applicable capital recovery fees, unless specifically changed by the language of this section.

11. The Developer shall design and construct a water main extension with a minimum diameter of 8 inches for residential and commercial zoning classifications or a minimum diameter of 12 inches for industrial-type zoning classifications, except where the Authority determines differing minimum sizes are required for service to the development or property, including fire protection.

The Developer shall design and construct a sewer main extension with a minimum diameter of 8 inches or where a low-pressure system is required a minimum diameter of 2 inches, except where the Authority determines differing minimum sizes are required for service to the development or property.

12. The number and location of fire hydrants shall conform to municipal requirements, or to Authority requirements if no municipal requirements are applicable. All fire hydrants necessary for protection of the development shall be installed at the Developer's expense.
13. All main extensions shall be located in public rights-of-way or Authority-owned easements. Developer shall grant to the Authority any easements across its property; obtain, at its costs, all necessary easements across others' properties; and procure all necessary releases associated with such easements. All easements shall be of a form acceptable to the Authority. The Authority shall make no payment towards the cost of obtaining such easements, either on-site or off-site, but rather consideration for the easements shall be the service provided by the Authority to the Developer.

REQUIREMENTS FOR FINAL SYSTEM PLAN APPROVAL

14. Final system plan approval shall be given upon compliance with the following conditions:
 - a) The design is determined to be in conformance with all Authority requirements.
 - b) All permits, licenses and other approvals necessary for construction, excepting local municipal permits and approvals, are obtained by the Developer. The Authority will execute acceptable applications for any permits, licenses and other approvals where it must be named as applicant, permittee, etc.
 - c) All necessary offsite easements are conveyed to the Authority and applicable releases obtained.
 - d) A developer's water or sewer system agreement is executed between the Authority, Developer, and landowner (if the Developer and landowner are different).
 - e) Acceptable performance security is provided.
 - f) The inspection/administrative costs deposit is received.
 - g) The record drawings deposit is received.
 - h) All necessary onsite easements, excluding roadways which shall ultimately be dedicated as public rights-of-way, are conveyed to the Authority and applicable releases obtained.
 - i) Insurance certificates naming the Authority as additional insured are provided.
 - j) Fully and properly executed notices of record/covenants, acknowledged by a notary public, as required by §10(a), (b) or (c), if applicable.

Upon satisfactory completion of conditions (a), (b), (c) and (h), the Authority will give conditional final plan approval if requested.

15. Performance security is required to assure completion of construction of the main extension and timely payment of all deposits and expenses related thereto. All security shall be of a type and in a form acceptable to the Authority.

The amount of the security shall be at least one hundred ten (110%) percent of the estimated cost of the improvements as determined by the Authority if the improvements shall be completed with one (1) year, and an additional ten (10%) for each one year period beyond the first anniversary date of the posting of the financial security. For purposes of this section, the estimated cost of the improvements shall not include any portion of the extension to be paid for by the Authority. The minimum time period of the performance security shall be one year, which security must be reissued before expiration if completion will be beyond one year. Commencement of construction shall not be a condition precedent to applicability and enforceability of the security.

The preferable form of performance security is an irrevocable letter of credit with a Federal or Commonwealth-chartered lending institution authorized to conduct the business of posting financial security within the Commonwealth of Pennsylvania. Another acceptable form of performance security is the establishment by Developer of an escrow in the form of a savings account in the name of only the Authority as holder in a Federal or Commonwealth-chartered lending institution authorized to conduct the business of posting financial security within the Commonwealth of Pennsylvania. A surety bond, however, is not a satisfactory form of security.

16. The Developer shall pay all reasonable administrative, legal and engineering costs, including the cost for administration and inspection of construction of the improvements from the time of plan approval until all terms of the developer's water or sewer system agreement have been satisfied. The Developer shall deposit with the Authority an amount of money equivalent to the estimate of such costs prior to plan approval; however, payment of such costs shall be based on the actual costs incurred.

The Developer shall be invoiced periodically during periods of activity which may show an amount due if the costs exceed the deposit. If the Developer fails to pay said invoice where an amount is due, within thirty (30) days of the date of such invoice, the Authority shall discontinue all activity associated with Developer's development, impose applicable penalties and interest, and if necessary may refuse to provide service to any lots in the development which are not at that time connected to its system.

17. The Developer shall also deposit with the Authority an amount of money equivalent to the estimated cost of preparing record drawings of the facilities to be constructed by the Developer. The Developer shall prepare these drawings in a form acceptable to the

Authority and submit them by the date of final acceptance. If, however, such drawings have not been received by the time the Authority issues its Certificate of Final Acceptance, the Authority shall prepare the drawings for the Authority's own use within forty-five (45) days and deduct the cost from the deposit or bill the Developer for any costs which exceed the deposit.

18. The Developer shall take out and maintain through the end of the eighteen-month maintenance period, as well as name the Authority as an additional insured thereon, such Public Liability and Property Damage Insurance as shall protect it, the Authority and the Authority's agents, officers and employees from claims against any of them for damages for personal injury, including accidental death, as well as from claims for property damage which may arise from operations connected with or caused by any operation or matter related to the main extension, whether such operations be by Developer or by any subcontractor or by anyone directly or indirectly employed by any of them. Hazards insured against for property damage liability shall include explosion, collapse, underground damage, and blasting to the extent that any such exposure exists. The amounts of such insurance shall be as follows and shall be nondeductible: General Liability, Bodily Injury and Property Damage combined - \$1,000,000 each occurrence, \$1,000,000 aggregate; Automobile Liability, Bodily Injury and Property Damage combined - \$1,000,000 each occurrence; Workers' Compensation - as required by law; Automobile Liability, Bodily Injury and Property Damage combined - \$1,000,000 each occurrence; and Blanket Excess Liability - \$1,000,000 each occurrence, \$1,000,000 aggregate. The liability insurers must have at least a 'B+' operating and 'Class VIII' financial rating as listed in 'Best's Key Rating Guide,' latest edition; and the Workers' Compensation coverage shall be through the State Workmen's Insurance Fund, or in any insurance company, or mutual association or company, authorized to insure such liability in Pennsylvania. Insurance coverage shall remain in full force and effect until final acceptance of the improvements by the Authority.

CONSTRUCTION

19. After final system plan approval and prior to construction of a main extension, the Developer shall:
 - a) Submit to the Authority for review and approval, detailed catalog information (also known as "Catalog Cuts" or "Shop drawings") for all pipelines and appurtenances to be used in the development.
 - b) Rough grade all proposed street areas and easements proposed to contain a main extension to within one foot of subgrade, in order to assure the Authority of proper pipe cover and appurtenance elevations.
 - c) Layout the location and grade of all pipelines and appurtenances to be constructed by means of appropriately-labeled stakes, pins or other acceptable survey marks, offset a minimum of ten feet from pipe centerline and spaced at

- intervals or not more than fifty feet, with additional stakes placed at all utility crossings and locations of fittings and appurtenances.
- d) Submit Cut Sheets prepared from the lay out information and the approved plans of the development to the Authority for review and approval. The Cut Sheets shall reflect the cut from the top of stakes to the designed pipeline invert as indicated on the approved plans.

FINAL ACCEPTANCE

20. Prior to issuance of the *Certificate of Final Acceptance*, maintenance security is required to assure the proper maintenance of main extension facilities and timely payment of all expenses related thereto for an eighteen-month period from such issuance. All security shall be in a form acceptable to the Authority.

This maintenance security shall be in the amount of fifteen (15%) percent of the actual construction cost of the improvements, including any Authority contribution. Developer shall submit documentation acceptable to the Authority.

The preferable form of maintenance security is an irrevocable letter of credit with a Federal or Commonwealth-chartered lending institution authorized to conduct the business of posting financial security within the Commonwealth of Pennsylvania. Another acceptable form of maintenance security is the establishment by Developer of an escrow in the form of a savings account in the name of only the Authority as holder in a Federal or Commonwealth-chartered lending institution authorized to conduct the business of posting financial security within the Commonwealth of Pennsylvania. A surety bond, however, is not a satisfactory form of security.

21. A main extension shall become the absolute property of the Authority on the date of final acceptance by the Authority. The Authority shall issue a Certificate of Final Acceptance upon the Developer meeting all of the requirements in the developer's water or sewer system agreement. If construction of the main extension, however, is not completed within the time required by this developer's water or sewer system agreement, or the developer's water or sewer system agreement is terminated for any reason whatsoever, all rights, title and interest to the main extension, insofar as it is completed, shall vest in the Authority without further action of the parties to the developer's water or sewer system agreement, unless specifically rejected by the Authority.
22. There shall be no service by the Authority provided within the development prior to the issuance of the Certificate of Final Acceptance unless there are extenuating circumstances for service before such issuance, which service must be approved by the Authority's Chief Executive Officer.
23. Not more than sixty (60) days before the expiration of the eighteen-month maintenance period, the Authority will conduct an end-of-maintenance-period inspection of the

improvements and notify the Developer of any deficiencies. The Developer shall have a minimum of fifteen (15) days to repair all noted deficiencies. If the Authority finds the repairs acceptable the maintenance security shall be released at the end of the maintenance period. If the deficiencies are not corrected by the Developer, the Authority will do the repairs and withdraw from the maintenance security the necessary amounts to pay for its work.



CONTRIBUTION POLICY

Appendix A to the Authority's Main Extension Policy

Amended
~~27 September 2007~~ August 22, 2022

INTRODUCTION

Under some circumstances, Lehigh County Authority ("the Authority") will contribute to the construction costs of a developer-installed main extension. To define this practice, this policy addresses the circumstances, the documentation required, the determination of the allowable construction costs, the requirements and the time frame for the payment of these costs to the developer, as well as other related factors.

DEFINITIONS

- 1) **AGREEMENT:** Developer's Water or Sewer System Agreement.
- 2) **AUTHORITY:** Lehigh County Authority
- 3) **DEVELOPMENT:** A subdivision, land development or property.
- 4) **PAYWIDTH:** For pipe, shall be equal to the outside diameter of the pipe barrel, exclusive of bells, hubs or branches plus two (2) feet. For a structure (such as a manhole or meter pit), shall be equal to the outside horizontal diameter or width dimensions plus two (2) feet.
- 5) **EARTH EXCAVATION:** Shall be defined as the removal down to Subgrade of any material other than rock, including, but not limited to clay, silt, loam, sand, gravel, hardpan, soft shale, soft sandstone, loose stone in masses, pavements of all kinds and all boulders measuring less than one-half cubic yard.
- 6) **ROCK EXCAVATION:** Shall be defined as the removal down to Subgrade of ledge rock or boulders measuring more than one-half cubic yard, or any other rock which in the opinion of the Authority requires continuous drilling and blasting or drilling and wedging for removal. The Rock Excavation price shall include the removal of the excavated rock from the project area and furnishing acceptable earth backfill material. Any material which can be removed by means other than those specified herein, but which for reasons of economy is removed by drilling and blasting or drilling and wedging, shall not be classified as rock.
- 7) **SUBGRADE:** Shall be defined as the planned bed of a trench prepared as per the construction specifications to receive pipe or, if applicable, bedding material or the area upon which rests the planned bottom of a structure.

APPLICABILITY

The Authority will contribute to the construction cost of certain developer-installed main extensions based on the following conditions:

1) Upsizing a Main Extension

The Authority increases the size of a main extension beyond the size determined by the Authority to be required for service, including fire protection, if water service, to the

Development. The Authority contribution will be based on the ratio of nominal pipe diameters.

2) Offsite Main Extension

The Authority contributes to an offsite main extension to serve a Development in accordance with a municipal service agreement. The Authority contribution will be based on the provisions of the applicable municipal service agreement.

3) Out-of-Parcel Main Extension

The Authority requires a main extension that meets all the following criteria:

- a) The main extension abuts a property that is not part of the Development; and
- b) This property is located within the limits of the Development; and
- c) The main extension that abuts this property does not also abut the Development; and
- d) The portion of the main extension that abuts the property is not needed to provide the required domestic service and fire protection to the Development.

Abut for purposes of this Policy shall mean that the easement or right-of-way in which a main extension is located, when combined with any adjoining public right-of-way, touches the property.

The Authority contribution will be based on the fraction of the length of main abutting only the out-of-parcel property, to the total length of the main abutting the Development and the out-of-parcel property:

4) Single Family Residential Lot Main Extension:

The Authority contributes to a single-family residential lot main extension, pursuant to ~~the Optional Exemption section of~~ the Main Extension Policy. The Authority contribution will be based on the fraction of the length of main the property owner is required to construct to the total length of the main extension.

5) Small Corner Parcel Subdivision Main Extension:

The Authority contributes to a corner parcel to be subdivided into three or fewer lots on fewer than four acres pursuant to the Main Extension Policy. The Authority contribution will be based on one-third of certain costs as set forth herein and in the Main Extension Policy.

PAYMENT LIMITS

1) General:

The Authority contribution shall be based on the payment limits listed below. Any work performed or areas damaged outside these payment limits shall not be considered for Authority contribution.

2) Trench-Related Items:

Including, but not limited to:

- a) Earth excavation, rock excavation, stone bedding, stone backfill, additional stone and temporary pavement restoration shall be measured for payment on the basis of a width equal to the Paywidth.
- b) Permanent pavement restoration shall be measured for payment on the basis of a width equal to the Paywidth plus two (2) feet.

Vertical measurements, if applicable for the above, shall be based on the Authority's applicable specifications and the approved set of plans.

3) Other Allowable Items:

Items including, but not limited to, pipes, valves, fittings, etc. shall be measured for payment based on field measurements and quantities.

EXCLUSIONS

Unless otherwise stated in the Agreement, the items indicated (marked with an "x") in the following table are excluded from the Authority contribution.

NO.	ITEM	CATEGORY OF MAIN EXTENSION				
		UPSIZING	OFF-SITE	OUT-OF-PARCEL	SINGLE FAMILY RESIDENTIAL	CORNER PARCEL
1.	Stone backfill used in areas not required by state or municipal specifications; or stone backfill used to expedite the installation of blacktop, where ordinary earth backfill with a specified settlement period would have been acceptable; or the optional use of stone backfill.	X	X	X	X	X
2.	Legal fees of any kind.	X	X	X	X	X
3.	Cost of furnishing & placing acceptable backfill material.	X	X	X	X	X
4.	Cost of removing excess excavated material from project area.	X	X	X	X	X
5.	Any profit, overhead or management charges added by developer to actual contract cost for the facilities involved.	X	X	X	X	X
6.	Easements or other land-related costs.	X	X	X	X	X
7.	Any cost resulting from deviation in approved plans, project delays, engineering or layout errors, fines, improper workmanship, etc.	X	X	X	X	X
8.	The cost of permits, insurance, financing, bonds, interest, etc.	X	X	X	X	X
9.	Any items not listed on appropriate exhibit in the Agreement.	X	X	X	X	X
10.	Engineering design layout or review fees of any kind.	X	X	X		X
11.	Inspection fees of any kind.	X	X	X		X
12.	Traffic control.	X				X
13.	Relocation, demolition, replacement, restoration or support of any structure, railroad track, utility line, road, bridge, etc.	X				X
14.	The relocation, removal, replacement, trimming, support, etc. of trees or plantings.	X				X

DOCUMENTATION REQUIRED FOR THE AGREEMENT

When an Authority contribution is applicable, it will be necessary to calculate with reasonable accuracy the approximate amount of the Authority's contribution. To accomplish this, the developer shall submit to the Authority for review and approval, a copy of the bid proposal from the contractor who will be constructing the main extensions(s) for the Development. The bid proposal shall be unit price proposal and shall include a rock excavation unit price. Lump sum proposals or time and material proposals will not be acceptable.

The bid proposals shall be based on the approved set of plans and the Authority's applicable specifications.

The Authority reserves the right to request from the developer two additional bid proposals to be used for comparison purposes.

VERIFICATION OF QUANTITIES DURING CONSTRUCTION

1) General

The Authority contribution shall be based on verified quantities only.

Items that are not listed on the appropriate exhibit in the Agreement will be classified as incidental to construction, and will not be verified nor allowed in the calculation of the Authority contribution.

2) Excavation

- a) Earth - If applicable, on a daily basis the developer or its representative and a representative from the Authority shall keep a record of all earth excavation, which shall detail the location corresponding to the stationing on the approved cut sheets, average depth of the trench to Subgrade and the size and type of pipe or structure being installed.
- b) Rock - If applicable, on a daily basis the developer or its representative and a representative from the Authority shall fill out and sign an "LCA Rock Excavation Slip." The slip shall detail the location corresponding to the stationing on the approved cut sheets where the rock was excavated, depth of the rock, and the size and type of pipe or structure being installed.

3) Stone

If applicable, a record shall be kept by both the developer or its representative and a representative of the Authority, detailing the location corresponding to the stationing on the approved cut sheets of where stone was used for bedding, envelope or backfill, the appropriate depth measurement and the size and type of pipe or structure being installed.

4) Other Allowable Items:

Shall be field-measured and counted by a representative of the Authority.

REQUIREMENTS FOR AUTHORITY PAYMENT TO THE DEVELOPER

The Authority shall make payment to the developer no later than 45 days after the developer has fulfilled his obligations as described under the “Final Acceptance” section of the Agreement and has provided the Authority with:

- a) Copies of the contractor’s invoices for the main extension(s); and
- b) An affidavit from the contractor indicating that the unit prices as indicated on the appropriate exhibit of the Agreement are true and correct. The affidavit form shall be prepared by the Authority.

TAPPING FEES

Tapping fees shall be reimbursed only when specified in the Agreement and in accordance with the terms of the Authority’s *Tapping Fee Policy* ~~in effect when the Agreement was executed.~~

RESOLUTION No. 8-2022-1

(Duly adopted 22 August 2022)

A RESOLUTION ESTABLISHING THE VARIOUS COMPONENTS OF THE LEHIGH COUNTY AUTHORITY CAPITAL RECOVERY FEES FOR THE VARIOUS SUBURBAN DIVISION WATER SYSTEMS.

WHEREAS, Lehigh County Authority ("Authority") is a Pennsylvania municipal authority incorporated by the County of Lehigh in accordance with the Municipality Authorities Act to provide, among other services, wastewater and water services; and

WHEREAS, the Authority owns and/or operates water and wastewater systems throughout the Lehigh Valley of Pennsylvania, which systems are divided between its City of Allentown and Suburban Divisions; and

WHEREAS, the Authority charges certain rates and fees for use of and connection to its systems; and

WHEREAS, the Authority desires to establish its fees in accordance with §5607 of the Municipality Authorities Act, as amended by legislative action in December 2003, setting forth the appropriate fee components; and

WHEREAS, the Authority has calculated the allowable basis for such fees for certain of its wastewater and water systems in accordance with the attached calculations and its summary of the Suburban Division Water Systems Capital Recovery Fees (as Attachment A), the current version of which, as well as any future changes thereto, is made a part hereof as if included herein; and

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

1. The capital recovery fees for water service in various of the Authority's water systems as indicated and shown on Attachment A, *Lehigh County Authority Water System Tapping Fee Calculation for Suburban Water Divisions, August 2022*, attached hereto and made a part hereof, are adopted effective 1 September 2022.

2. The Authority's Schedules of Rates and Charges shall be amended to reflect the fees hereby adopted, which fees shall be effective as of 1 September 2022.

3. All other Authority cost recovery fees, customer facilities fees, connection fees, and tapping fees, not contained in Attachment A hereto, continue in place, and are unaffected hereby.

On motion of _____, seconded by _____, this Resolution was adopted the 22nd day of August 2022.

Tally of Votes: Yeas _____ Nays _____



I, Michael A. Gaul, Esquire, of the law firm 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 22 August 2022, after notice thereof had been duly given as required by law, at which meeting a quorum was present and voting and which resolution No. 8-2022-1 is now in full force and effect on the date of this certification.

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

_____ Lisa J. Miller Executive Administrative Support Specialist	_____ Date
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Attachment A



LEHIGH COUNTY AUTHORITY WATER SYSTEM TAPPING FEE CALCULATION FOR SUBURBAN WATER DIVISIONS

August 2022

Keystone Alliance Consulting, Inc.



**LEHIGH COUNTY AUTHORITY
SUBURBAN WATER DIVISIONS
WATER SYSTEM TAPPING FEE CALCULATION**

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EXHIBITS

Central Lehigh, North Whitehall, Washington Township, Heidelberg Heights, Pine Lakes, Mill Creek, Beverly Hills, Clearview Farms Estates, Upper Milford Central, and Madison Park North Divisions

Exhibit 1 – Calculation of Water Tapping Fee

Exhibit 2 – Central Lehigh Division - Capacity System Assets

Exhibit 3 – Central Lehigh Division - Distribution System Assets

Exhibit 4 – North Whitehall Division – Capital Costs thru 2011

Exhibit 5 – North Whitehall Division – Additional Assets since 2011

Exhibit 6 – Washington Township Division – Assets thru 2011

Exhibit 7 – Washington Township Division – Additional Assets since 2011

Exhibit 8 – Heidelberg Heights System – Assets thru 2011

Exhibit 9 – Heidelberg Heights System – Additional Assets since 2011

Exhibit 10 – Small Systems – Capacity Assets thru 2011

Exhibit 11 – Small Systems – Distribution Assets thru 2011

Exhibit 12 – Small Systems – Additional Assets since 2011

(Small Systems include Beverly Hills, Mill Creek, Pine Lakes, Clearview Farms Estates, Madison Park North, and Upper Milford Central)

Exhibit 13 – Central Lehigh Division - Contribution Summary

Exhibit 14 – North Whitehall Division - Contribution Summary

Exhibit 15 – Washington Township Division – Contribution Summary

Exhibit 16 – Heidelberg Heights System - Contribution Summary

Exhibit 17 – Central Lehigh Division - Debt Service Summary

Exhibit 18 – Washington Township Division – Debt

Exhibit 19 – System Capacity Calculation

Exhibit A1 – Arcadia West Division - Calculation of Water Tapping Fee

Exhibit A2 – Arcadia West Division – Assets thru 2011

Exhibit A3 – Arcadia West Division – Additional Assets since 2011

Exhibit A4 – Arcadia West Division – System Capacity Calculation

**LEHIGH COUNTY AUTHORITY – SUBURBAN WATER DIVISIONS
WATER SYSTEM TAPPING FEE CALCULATIONS**

**SUMMARY OF FEES CALCULATED FOR
ACT 57 TAPPING FEE STUDY**

On December 19, 1990, the Pennsylvania State Legislature enacted Act 209 of 1990, which amends the Act of July 31, 1968 (P.L. 805, No. 247). One of the provisions of that law requires municipalities that assess tapping or similar water and sewer fees to comply with the requirements of Act 203 of 1990, which amended Section 4 of the Municipalities Authorities Act. Subsequently, on December 30, 2003, the aforesaid Act 203 was amended by Act 57 of 2003 (hereinafter referred to as the “Act”). The intent of the Act was to clarify certain sections of the aforesaid Act 203. As a result, no municipality is permitted to impose any connection fee, customer facilities fee, tapping fee or any similar fee, except as provided specifically under the Act. The various provisions of the Act are effective on or about June 30, 2005 or immediately upon any revision of a municipality’s tapping fee.

Similar to the aforesaid Act 203, the Act provides for the imposition of a tapping fee with three separate components that are designed to allow the Lehigh County Authority (the “Authority”) to recover specific capital costs. With the exception of assessments and to some extent reserve capacity fees, these are the only capital charges that an Authority may impose. Water rents and other charges that are intended to recover operation, maintenance, and debt service costs are unaffected by the Act.

The three components of the Authority’s tapping fee are (1) connection fee; (2) customer facilities fee; and (3) tapping fee. Parenthetically, it should be noted that the term “tapping fee” refers to a one of the three components of the overall fee as well as the overall fee itself. Generally, the connection fee focuses on the cost of the facilities between the main and the property line while the customer facilities fee deals with the cost from the property line to the building. The tapping fee component covers the costs associated with the distribution lines and treatment facilities. The tapping fee calculation is comprised of four parts – capacity, distribution, special purpose and reimbursement. Each part of the tapping fee may not be applicable to every municipality. In the case of the Lehigh County Authority’s tapping fees for the Suburban Water Division, the calculations are broken down by service area and the only pertinent parts are capacity, distribution, and special purpose. The situations surrounding the imposition of the reimbursement portion of the tapping fee are not applicable to the Authority at this point in time but may be imposed at a later date, if warranted.

The amounts shown below in Table 1 reflect the tapping fees calculated for the Authority in accordance with Act 57 of 2003 and Act 209 of 1990. The Authority is justified in charging these figures or any lesser amount.

TABLE 1
TAPPING FEE COMPONENTS

Central Lehigh, North Whitehall, Washington Township, Heidelberg Heights, Pine Lakes, Mill Creek, Beverly Hills, Clearview Farms Estates, Upper Milford Central, and Madison Park North Divisions

1. Connection Fee	Actual Cost
2. Customer Facilities Fee	Actual Cost
3. Tapping Fee – Per Equivalent Dwelling Unit (EDU)	
Capacity Part	\$659.25
Distribution Part	<u>125.03</u>
TOTAL	\$784.28

Acadia West Division

4. Connection Fee	Actual Cost
5. Customer Facilities Fee	Actual Cost
6. Tapping Fee – Per Equivalent Dwelling Unit (EDU)	
Capacity Part	\$2,568.41
Distribution Part	275.06
Special Purpose Part – Fire Service	0.17 per Sq. Ft.

**LEHIGH COUNTY AUTHORITY – SUBURBAN WATER DIVISIONS
WATER SYSTEM TAPPING FEE CALCULATIONS**

SCHEDULE A

CONNECTION FEE COMPONENT

The connection fee recovers the cost of the installation of the service line from the Authority's water main to the property line or curb stop of the dwelling or building being connected. When the Authority does incur costs associated with the installation of these facilities, the fee may be calculated using either: (1) the actual costs of the particular installation; or (2) the average cost of similar installations or (3) the current/trended value of the average cost. The Authority may require this cost to be borne by the property owner. Costs associated with the connection fee may include materials, rental equipment, labor, inspection, engineering, legal and administration.

The Authority may also require, at its discretion, that an Escrow Account be established to cover any expenditure that the Authority may incur associated with making the connection. The amount of any Escrow can be based upon an estimate of actual costs or based upon a flat fee. In lieu of payment of a connection fee, the Authority may require the construction and dedication of these facilities by the property owner.

The Authority has selected to charge the average cost of similar installation to all customers. The costs of these connections have been calculated by the Authority staff and are shown in the fee schedule.

**LEHIGH COUNTY AUTHORITY – SUBURBAN WATER DIVISIONS
WATER SYSTEM TAPPING FEE CALCULATIONS**

SCHEDULE B

CUSTOMER FACILITY FEE COMPONENT

This fee covers the cost of the facilities from the property line or curb stop to the proposed dwelling or building being connected to the Authority's water system. These facilities generally include the service line beyond the curb stop, the water meter and any appurtenances.

The developer is responsible for the installation and cost of the service line beyond the curb stop. In the event that the service involves a single property, the installation and cost will be the responsibility of the property owner. However, whether the developer or the property owner installs the service line, the installation of the water meter is the responsibility of the Authority. The cost of the water meter and its installation is borne by the developer or the property owner and is paid to the Authority. The cost of the customer facility fee component are reflected in the Authority fee schedule.

The Authority may be required to provide inspection to insure that the facilities have been installed properly and in conformance with its regulations. Any costs attendant to inspection will be passed onto the property owner.

**LEHIGH COUNTY AUTHORITY – SUBURBAN WATER DIVISIONS
WATER SYSTEM TAPPING FEE CALCULATIONS**

SCHEDULE C

TAPPING FEE COMPONENT

The tapping fee is charged to allow the Authority to recover capital costs associated with the original construction and any additions or improvements to the Authority's water system as long as these facilities are still used on a regular basis. Facilities funded by others, such as a developer, and dedicated to the Authority are considered contributed capital and therefore not included in the computation of this fee.

All property owners or developers connecting to the Authority's water system are subject to a tapping fee, which may consist of up to four parts, which are calculated separately. The capacity part includes costs for the construction of those facilities that are related to the system's capacity, such as, transmission mains, storage tanks, pumping stations, wells and appurtenant structures and the treatment plant. The distribution part covers costs for the installation of distribution mains. The special purpose part covers costs for facilities that only serve a subset of customers. The remainder of the tapping fee includes the reimbursement part. This is not applicable to the Lehigh County system. Accordingly the tapping fee will focus on the capacity, distribution, and special purpose parts only.

The Act provides for the determination of the capital costs of the system based on either:

- Original or historical costs of the system plus any capital improvement projects as well as the interest paid to date on any indebtedness associated with the system or
- Original costs trended to current dollars plus any capital improvement projects less any remaining indebtedness (principal only) associated with the system

The net capital costs (either original or trended) are divided by the capacity amount, resulting in the tapping fee per gallon. For Lehigh County water systems, the capacity is defined as the maximum safe-yield of the water system.

The tapping fee calculation under the original cost and the trended original cost methodologies is presented for each component or system. The tapping fee per is disaggregated between the capacity, distribution, and special purpose part of the water system where applicable. Note that the special purpose part is only applicable to the Arcadia Division. In some cases the asset details are shown on a separate exhibit if necessary.

Some of the capital costs incurred by the Authority have been funded by state and federal grants. These costs are, for the purposes of this calculation, considered to be

contributed and therefore subtracted from the total capital costs incurred by the Authority. If necessary, the contribution details are shown on a separate exhibit in some cases.

Debt is either added or subtracted in some aspect from the calculation depending on the methodology. The interest paid on the loans is added to the original cost base while the outstanding principal on the loans is subtracted from the trended original cost base.

The Authority is permitted under the Act to choose the methodology that produces the highest tapping fee. The method chosen in each case is shown in Table 1.

The special purpose part is only applicable to a particular group of customers. The special purpose part is designed to recover the Authority's cost for facilities that service a special purpose or specific area, such as fire service. Fees would be separately calculated for each applicable group and applied to new users as appropriate. The same calculation methodology used for the capacity part and the collection part would apply.

The Act references one other aspect to the tapping fee component, specifically the reimbursement part. This is not currently applicable to the Authority's tapping fee. However, if the situation arises, it could be addressed and incorporated into the calculations.

Where appropriate, a reimbursement component may be included in the tapping fee charged for new connections to facilities constructed by others for which a reimbursement is due to the person/developer constructing the facilities. Generally, this reimbursement will be defined in a written reimbursement agreement between the Authority and the person constructing the facilities. Typically such agreements reimburse the cost of the excess capacity available for use by future connections. At this time the Authority has no agreement(s) with any developer(s) which would require the calculation of a reimbursement part.

LEHIGH COUNTY AUTHORITY
SUMMARY OF WATER FUND CAPITAL RECOVERY FEES
Updated August 2022

Exhibits	Charge	Per Gallon			Per EDU			Gallons per EDU	(1) Change %	Costing Method
		Existing Charge	Maximum Charge 8/2/2022	New Charge	Existing Charge	Maximum Charge 8/2/2022	New Charge			
1-19	Suburban Water - Central Lehigh Division	10/1/2012			10/1/2012					
	Capacity	\$ 3.66	\$3.96	\$3.96	\$ 605.00	\$ 659.25	\$659.25	166.4	8.97%	Original Cost
	Distribution	\$ 11.39	\$0.75	\$0.75	\$ 1,880.00	\$ 125.03	\$125.03	166.4	-93.35%	Original Cost
1-19	Suburban Water - Washington Township Div	10/1/2012			10/1/2012					
	Capacity	\$ 6.15	\$3.96	\$3.96	\$ 1,000.00	\$ 659.25	\$659.25	166.4	-34.07%	Original Cost
	Distribution	\$ 9.54	\$0.75	\$0.75	\$ 1,550.00	\$ 125.03	\$125.03	166.4	-91.93%	Original Cost
1-19	Suburban Water - North Whitehall Township	10/1/2012			10/1/2012					
	Capacity	\$ 3.30	\$3.96	\$3.96	\$ 575.00	\$ 659.25	\$659.25	166.4	14.65%	Original Cost
	Distribution	\$ 11.49	\$0.75	\$0.75	\$ 2,000.00	\$ 125.03	\$125.03	166.4	-93.75%	Original Cost
1-19	Suburban Water - Heidelberg Heights Division	10/1/2012			10/1/2012					
	Capacity	\$ 4.06	\$3.96	\$3.96	\$ 708.00	\$ 659.25	\$659.25	166.4	-6.89%	Original Cost
	Distribution	\$ 12.02	\$0.75	\$0.75	\$ 2,000.00	\$ 125.03	\$125.03	166.4	-93.75%	Original Cost
E1-E4	Suburban Water - Arcadia Division	10/1/2012			10/1/2012					
	Capacity	\$ 1.55	\$14.74	\$14.74	\$ 270.01	\$ 2,568.41	\$2,568.41	174.2	851.23%	Trended Original Cost
	Distribution	\$ 0.67	\$1.58	\$1.58	\$ 116.71	\$ 275.06	\$275.06	174.2	135.67%	Trended Original Cost
	Fire Service	\$ 0.12	\$0.17	\$0.17						Trended Original Cost
1-19	Suburban Water - Mill Creek Division	10/1/2012			10/1/2012					
	Capacity	\$ 1.16	\$3.96	\$3.96	\$ 192.00	\$ 659.25	\$659.25	166.4	243.36%	Original Cost
	Distribution	\$ 12.11	\$0.75	\$0.75	\$ 2,000.00	\$ 125.03	\$125.03	166.4	-93.75%	Original Cost
1-19	Suburban Water - Pine Lakes Division	10/1/2012			10/1/2012					
	Capacity	\$ 1.16	\$3.96	\$3.96	\$ 192.00	\$ 659.25	\$659.25	166.4	243.36%	Original Cost
	Distribution	\$ 12.11	\$0.75	\$0.75	\$ 2,000.00	\$ 125.03	\$125.03	166.4	-93.75%	Original Cost
1-19	Suburban Water - Beverly Hills Division	10/1/2012			10/1/2012					
	Capacity	\$ 1.16	\$3.96	\$3.96	\$ 192.00	\$ 659.25	\$659.25	166.4	243.36%	Original Cost
	Distribution	\$ 12.11	\$0.75	\$0.75	\$ 2,000.00	\$ 125.03	\$125.03	166.4	-93.75%	Original Cost
1-19	Suburban Water - Clearview Farms Estates Division									
	Capacity		\$3.96	\$3.96		\$ 659.25	\$659.25	166.4		Original Cost
	Distribution		\$0.75	\$0.75		\$ 125.03	\$125.03	166.4		Original Cost
1-19	Suburban Water - Madison Park North Division									
	Capacity		\$3.96	\$3.96		\$ 659.25	\$659.25	166.4		Original Cost
	Distribution		\$0.75	\$0.75		\$ 125.03	\$125.03	166.4		Original Cost

LEHIGH COUNTY AUTHORITY
SUMMARY OF WATER FUND CAPITAL RECOVERY FEES
Updated August 2022

		Per Gallon			Per EDU			(1)		
		Existing Charge	Maximum Charge 8/2/2022	New Charge	Existing Charge	Maximum Charge 8/2/2022	New Charge	Gallons per EDU	Change %	
Exhibits	Charge									Costing Method
1-19	Suburban Water - Upper Milford Central Div	10/1/2012			10/1/2012					
	Capacity	\$ 1.39	\$3.96	\$3.96	\$ 235.00	\$ 659.25	\$659.25	166.4	180.53%	Original Cost
	Distribution	\$ 11.79	\$0.75	\$0.75	\$ 2,000.00	\$ 125.03	\$125.03	166.4	-93.75%	Original Cost

(1) Based on Charge Per EDU

SCHEDULE OF WATER RATES AND CHARGES**Tapping, Connection and Customer Facilities Fees****Central Lehigh Division**

Size of Service Line	Tapping Fee		Connection Fee	Customer Facilities Fee
	Distribution	Capacity		
MFR*	\$ 83.35	\$ 439.50	*	*
3/4"	125.03	659.25	*	*
1"	208.39	1,098.75	*	*
1-1/2"	416.77	2,197.50	*	*
2"	666.84	3,516.01	*	*
3"	1,250.32	6,592.51	*	*
4"	2,083.86	10,987.52	*	*
6"	4,167.72	21,975.03	*	*
8"	6,668.36	35,160.05	*	*
10"	9,585.76	50,542.58	*	*
12"	17,921.21	94,492.64	*	*

Source: Distribution - Exhibit 1, Distribution Tapping Fee per EDU, Original Cost
Capacity - Exhibit 1, Capacity Tapping Fee per EDU, Original Cost

Washington Township Division

Size of Service Line	Tapping Fee		Connection Fee	Customer Facilities Fee
	Distribution	Capacity		
MFR*	\$ 83.35	\$ 439.50	*	*
3/4"	125.03	659.25	*	*
1"	208.39	1,098.75	*	*
1-1/2"	416.77	2,197.50	*	*
2"	666.84	3,516.01	*	*
3"	1,250.32	6,592.51	*	*
4"	2,083.86	10,987.52	*	*
6"	4,167.72	21,975.03	*	*
8"	6,668.36	35,160.05	*	*
10"	9,585.76	50,542.58	*	*
12"	17,921.21	94,492.64	*	*

Source: Distribution - Exhibit C1, Distribution Tapping Fee per EDU, Trended Cost
Capacity - Exhibit C1, Capacity Tapping Fee per EDU, Trended Cost

North Whitehall Township Division

Size of Service Line	Tapping Fee		Connection Fee	Customer Facilities Fee
	Distribution	Capacity		
MFR*	\$ 83.35	\$ 439.50	*	*
3/4"	125.03	659.25	*	*
1"	208.39	1,098.75	*	*
1-1/2"	416.77	2,197.50	*	*
2"	666.84	3,516.01	*	*
3"	1,250.32	6,592.51	*	*
4"	2,083.86	10,987.52	*	*
6"	4,167.72	21,975.03	*	*
8"	6,668.36	35,160.05	*	*
10"	9,585.76	50,542.58	*	*
12"	17,921.21	94,492.64	*	*

Source: Distribution - Exhibit B1, Distribution Tapping Fee per EDU, Trended Cost
 Capacity - Exhibit B1, Capacity Tapping Fee per EDU, Trended Cost

Heidelberg Heights Division

Size of Service Line	Tapping Fee		Connection Fee	Customer Facilities Fee
	Distribution	Capacity		
MFR*	\$ 83.35	\$ 439.50	*	*
3/4"	125.03	659.25	*	*
1"	208.39	1,098.75	*	*
1-1/2"	416.77	2,197.50	*	*
2"	666.84	3,516.01	*	*
3"	1,250.32	6,592.51	*	*
4"	2,083.86	10,987.52	*	*
6"	4,167.72	21,975.03	*	*
8"	6,668.36	35,160.05	*	*
10"	9,585.76	50,542.58	*	*
12"	17,921.21	94,492.64	*	*

Source: Distribution - Exhibit D1, Distribution Tapping Fee per EDU, Trended Cost
 Capacity - Exhibit D1, Capacity Tapping Fee per EDU, Trended Cost

Arcadia Division

Size of Service Line	Tapping Fee		Connection Fee	Customer Facilities Fee
	Distribution	Capacity		
MFR*	\$ 183.37	\$ 1,712.28	*	*
3/4"	275.06	2,568.41	*	*
1"	458.43	4,280.69	*	*
1-1/2"	916.86	8,561.38	*	*
2"	1,466.97	13,698.21	*	*
3"	2,750.57	25,684.14	*	*
4"	4,584.28	42,806.90	*	*
6"	9,168.55	85,613.79	*	*
8"	14,669.68	136,982.07	*	*
10"	21,087.67	196,911.72	*	*
12"	39,424.77	368,139.30	*	*

Special Purpose Fire Service - \$0.17 Per Square Foot of Building Space

Source: Distribution - Exhibit E1, Distribution Tapping Fee per EDU, Trended Cost
Capacity - Exhibit E1, Capacity Tapping Fee per EDU, Trended Cost
Special Purpose Fire Service - Exhibit E1, Special Purpose Fee per Square Foot, Trended Cost

Mill Creek Division**Pine Lakes Division****Beverly Hills Division****Clearview Farms Estates Division****Madison Park North Division****Upper Milford Central Division**

Size of Service Line	Tapping Fee		Connection Fee	Customer Facilities Fee
	Distribution	Capacity		
MFR*	\$ 83.35	\$ 439.50	*	*
3/4"	125.03	659.25	*	*
1"	208.39	1,098.75	*	*
1-1/2"	416.77	2,197.50	*	*
2"	666.84	3,516.01	*	*
3"	1,250.32	6,592.51	*	*
4"	2,083.86	10,987.52	*	*
6"	4,167.72	21,975.03	*	*
8"	6,668.36	35,160.05	*	*
10"	9,585.76	50,542.58	*	*
12"	17,921.21	94,492.64	*	*

Source: Distribution - Exhibit K1, Distribution Tapping Fee per EDU, Trended Cost
Capacity - Exhibit K1, Capacity Tapping Fee per EDU, Trended Cost

Exhibit No. 1
Lehigh County Authority
Suburban Water - Central Lehigh, North Whitehall, Washington Township, Heidelberg Heights,
Pine Lakes, Mill Creek, Beverly Hills, Clearview Farms Estates, Upper Milford Central, Emmaus Consecutive.
and Madison Park North Divisions
Lehigh County, Pennsylvania
Calculation of Water Tapping Fee

A. <u>Capacity Part</u>	<u>Exhibit Reference</u>	<u>Original Cost</u>	<u>Trended Cost</u>
Central Lehigh Division			
Transmission	2	\$26,570,668	\$46,725,621
Land	2	1,324,647	1,324,647
Pump Station Structure	2	4,551,075	7,559,353
Electrical & Pumping	2	6,065,349	10,178,301
Purification	2	1,084,642	1,854,471
Wells	2	1,581,929	2,704,364
Reservoir	2	5,658,972	9,610,318
Allentown Interconnection - Phases 1 & 2 (C)		4,243,332	6,004,347
Additions since 2011	2	5,103,171	5,904,431
North Whitehall Division			
Project Costs	4	\$1,595,878	\$3,384,587
Planning Costs	4	196,939	247,370
Additional Assets	5	484,968	588,371
Washington Township System			
Transmission Assets	6	\$1,704,377	\$3,552,534
Capacity Assets	6	549,264	1,144,864
Additional Assets	7	-	-
Heidelberg Heights System			
Pump Station Structure	8	\$126,125	\$227,313
Pumping	8	41,277	74,393
Purification	8	2,172	3,915
Reservoir	8	258,507	465,902
Wells	8	37,518	67,618
Land	8	41,712	41,712
Additional Assets	9	15,845	19,744
Small Water Systems			
Beverly Hills	10	\$20,491	\$34,971
Mill Creek	10	7,790	12,960
Pine Lakes	10	6,517	13,201
Clearview Farms Estates	10	8,323	14,655
Madison Park North	10	199,028	287,617
Upper Milford Central	10	60,882	95,599
Additional Assets	12	3,218,431	3,702,419
		<hr/>	<hr/>
		\$64,759,828	\$105,845,599
Less: Contributions			
Central Lehigh Division			
Transmission	13	\$17,080,979	\$30,091,054
Land	13	176,650	260,042
Pump Station Structure	13	1,134,965	1,848,258
Electrical & Pumping	13	1,679,812	2,894,942
Purification	13	14,465	19,634
Wells	13	371,018	572,312
Reservoir	13	352,860	653,196
North Whitehall Division			
	14	242,746	437,556

Exhibit No. 1
Lehigh County Authority
Suburban Water - Central Lehigh, North Whitehall, Washington Township, Heidelberg Heights,
Pine Lakes, Mill Creek, Beverly Hills, Clearview Farms Estates, Upper Milford Central, Emmaus Consecutive.
and Madison Park North Divisions
Lehigh County, Pennsylvania
Calculation of Water Tapping Fee

	<u>Exhibit Reference</u>	<u>Original Cost</u>	<u>Trended Cost</u>
Washington Township System	15	1,186,810	2,473,740
Heidelberg Heights System	16	299,910	540,523
		<hr/>	<hr/>
		\$22,540,216	\$39,791,257
Net Capital		\$42,219,612	\$66,054,343
Financing Costs for Capacity Part		<hr/>	<hr/>
Total Cost of Capacity Part		\$42,219,612	\$66,054,343
Plus: Interest Paid On Debt			
Central Lehigh Division	17	\$7,290,842	-
Washington Township System	18	346,954	n/a
Less: Outstanding Debt			
Central Lehigh Division	17		27,761,189
Washington Township System	18	n/a	7,768
		<hr/>	<hr/>
Eligible Cost for Capacity Part		\$49,857,407	\$38,285,385
Total Capacity			
Central Lehigh Division	19	11,637,316	11,637,316
North Whitehall Division	19	712,873	712,873
Washington Township System	19	140,000	140,000
Heidelberg Heights System	19	30,457	30,457
Beverly Hills	19	6,824	6,824
Mill Creek	19	5,081	5,081
Pine Lakes	19	8,408	8,408
Clearview Farms Estates	19	9,048	9,048
Madison Park North	19	14,099	14,099
Upper Milford Central	19	20,286	20,286
		<hr/>	<hr/>
		12,584,391	12,584,391
Capacity Tapping Fee per Gallon		\$3.96	\$3.04
Gallon per EDU for Capacity Part (1)		166.4	166.4
Capacity Tapping Fee per EDU		\$659.25	\$506.24

Exhibit No. 1
Lehigh County Authority
Suburban Water - Central Lehigh, North Whitehall, Washington Township, Heidelberg Heights,
Pine Lakes, Mill Creek, Beverly Hills, Clearview Farms Estates, Upper Milford Central, Emmaus Consecutive.
and Madison Park North Divisions
Lehigh County, Pennsylvania
Calculation of Water Tapping Fee

B. <u>Distribution Part</u>	<u>Exhibit Reference</u>	<u>Original Cost</u>	<u>Trended Cost</u>
Central Lehigh Division			
Capital Expenditures	3	\$26,774,561	\$47,560,290
Additions since 2011	3	568,494	683,260
North Whitehall Division			
Project Costs	4	\$997,508	\$2,213,682
Services	4	285,975	468,498
Hydrants	4	75,339	114,500
Additional Assets	5	5,429	7,470
Washington Township System			
Distribution Assets	6	\$767,614	\$1,599,984
Metering	6	1,429	2,979
Hydrants	6	75,947	158,301
Services	6	154,249	321,511
Additional Assets	7	3,364	4,665
Heidelberg Heights System			
Distribution	8	\$136,758	\$246,477
Metering	8	68,027	122,604
Services	8	43,449	78,308
Hydrants	8	5,648	10,180
Additional Assets	9	-	-
Small Water Systems			
Beverly Hills	11	\$32,483	\$58,170
Mill Creek	11	13,686	24,663
Pine Lakes	11	6,865	13,906
Clearview Farms Estates	11	20,440	36,890
Madison Park North	11	90,677	135,042
Upper Milford Central	11	157,279	263,386
Additional Assets	12	2,165	2,879
		<hr/>	<hr/>
		\$30,287,389	\$54,127,646
Less: Contributions			
Central Lehigh Division	13	\$21,279,629	\$37,738,249
North Whitehall Division	14	432,024	787,307
Washington Township System	15	428,641	893,442
Heidelberg Heights System	16	150,090	270,504
		<hr/>	<hr/>
		\$22,290,384	\$39,689,502
 Net Capital		 \$7,997,005	 \$14,438,144
 Financing Costs for Distribution Part		 <hr/>	 <hr/>
Total Cost of Distribution Part		\$7,997,005	\$14,438,144

Exhibit No. 1
Lehigh County Authority
Suburban Water - Central Lehigh, North Whitehall, Washington Township, Heidelberg Heights,
Pine Lakes, Mill Creek, Beverly Hills, Clearview Farms Estates, Upper Milford Central, Emmaus Consecutive.
and Madison Park North Divisions
Lehigh County, Pennsylvania
Calculation of Water Tapping Fee

	<u>Exhibit Reference</u>	<u>Original Cost</u>	<u>Trended Cost</u>
Plus: Interest Paid On Debt			
Central Lehigh Division	17	\$1,249,751	-
Washington Township System	18	209,062	n/a
Less: Outstanding Debt			
Central Lehigh Division	17		4,758,650
Washington Township System	18	n/a	4,681
Eligible Cost for Distribution Part		<u>\$9,455,817</u>	<u>\$9,674,813</u>
Total Capacity		12,584,391	12,584,391
Distribution Tapping Fee per Gallon		\$0.75	\$0.77
Gallon per EDU for Distribution Part (1)		166.4	166.4
Distribution Tapping Fee per EDU		\$125.03	\$127.93
Total Tapping Fee per Gallon		\$4.71	\$3.81
Total Tapping Fee per EDU		\$784.28	\$634.16
(1) Average Household Size Per 2020 Census for Lehigh County		2.56	
Gallons Per Capita Per Day Allowed Per Act 57 of 2003		<u>65</u>	
Total Gallons Per Day Per EDU		166.4	

Exhibit No. 2
Lehigh County Authority
Suburban Water - Central Lehigh Division
Lehigh County, Pennsylvania
Capacity Assets

Expenditure	Year Placed in Service	Original Cost	Cost Index		Trended Current Replacement Cost
			Original	Current	
Transmission					
Balance as of 12/31/2004	2004	\$16,532,045	7115	13171	\$30,603,257
2005 Additions	2005	538,656	7446	13171	952,806
2006 Additions	2006	2,707,636	7751	13171	4,600,866
2007 Additions	2007	888,900	7967	13171	1,469,532
2008 Additions	2008	3,083,231	8310	13171	4,886,866
2009 Additions	2009	246,154	8570	13171	378,306
2010 Additions	2010	2,146,998	8799	13171	3,213,836
2011 Additions	2011	427,048	9070	13171	620,151
		\$26,570,668			\$46,725,621
Land					
Balance as of 12/31/2004	2004	\$892,578			\$892,578
2005 Additions	2005	-			-
2006 Additions	2006	-			-
2007 Additions	2007	-			-
2008 Additions	2008	231,723			231,723
2009 Additions	2009	3,659			3,659
2010 Additions	2010	98,571			98,571
2011 Additions	2011	98,116			98,116
		\$1,324,647			\$1,324,647
Pump Station Structure					
Balance as of 12/31/2004	2004	\$1,673,835	7115	13171	\$3,098,516
2005 Additions	2005	266,003	7446	13171	470,522
2006 Additions	2006	1,814	7751	13171	3,082
2007 Additions	2007	4,266	7967	13171	7,053
2008 Additions	2008	405,183	8310	13171	642,208
2009 Additions	2009	1,218,866	8570	13171	1,873,234
2010 Additions	2010	894,362	8799	13171	1,338,768
2011 Additions	2011	86,746	9070	13171	125,971
		\$4,551,075			\$7,559,353
Electrical & Pumping					
Balance as of 12/31/2004	2004	\$2,170,057	7115	13171	\$4,017,096
2005 Additions	2005	589,694	7446	13171	1,043,085
2006 Additions	2006	34,162	7751	13171	58,049
2007 Additions	2007	309,397	7967	13171	511,496
2008 Additions	2008	1,031,249	8310	13171	1,634,511
2009 Additions	2009	722,691	8570	13171	1,110,679
2010 Additions	2010	1,095,922	8799	13171	1,640,483
2011 Additions	2011	112,177	9070	13171	162,901
		\$6,065,349			\$10,178,301

Exhibit No. 2
Lehigh County Authority
Suburban Water - Central Lehigh Division
Lehigh County, Pennsylvania
Capacity Assets

Expenditure	Year Placed	Original Cost	Cost Index		Trended Current
	in Service		Original	Current	Replacement Cost
Purification					
Balance as of 12/31/2004	2004	\$598,211	7115	13171	\$1,107,377
2005 Additions	2005	46,479	7446	13171	82,215
2006 Additions	2006	1,184	7751	13171	2,012
2007 Additions	2007	57,861	7967	13171	95,656
2008 Additions	2008	34,803	8310	13171	55,162
2009 Additions	2009	366	8570	13171	562
2010 Additions	2010	210,487	8799	13171	315,077
2011 Additions	2011	135,251	9070	13171	196,409
		\$1,084,642			\$1,854,471
Wells					
Balance as of 12/31/2004	2004	\$817,609	7115	13171	\$1,513,515
2005 Additions	2005	-	7446	13171	-
2006 Additions	2006	-	7751	13171	-
2007 Additions	2007	-	7967	13171	-
2008 Additions	2008	358,021	8310	13171	567,457
2009 Additions	2009	380,243	8570	13171	584,383
2010 Additions	2010	26,208	8799	13171	39,231
2011 Additions	2011	(152)	9070	13171	(221)
		\$1,581,929			\$2,704,364
Reservoir					
Balance as of 12/31/2004	2004	\$2,442,336	7115	13171	\$4,521,125
2005 Additions	2005	-	7446	13171	-
2006 Additions	2006	268,731	7751	13171	456,633
2007 Additions	2007	232,238	7967	13171	383,937
2008 Additions	2008	2,016,412	8310	13171	3,195,977
2009 Additions	2009	260,350	8570	13171	400,123
2010 Additions	2010	338,896	8799	13171	507,293
2011 Additions	2011	100,009	9070	13171	145,231
		\$5,658,972			\$9,610,318

Exhibit No. 2
Lehigh County Authority
Suburban Water - Central Lehigh Division
Lehigh County, Pennsylvania
Capacity Assets

Expenditure	Year Placed	Original Cost	Cost Index		Trended Current
	in Service		Original	Current	Replacement Cost
Additions since 2011					
SCADA On-Going Upgrade	2012	\$8,748	9308	13171	\$12,378
SCADA On-Going Upgrade	2013	10,136	9547	13171	13,984
SCADA On-Going Upgrade	2014	9,335	9806	13171	12,538
SCADA On-Going Upgrade	2015	1,274	10039	13171	1,672
SCADA On-Going Upgrade	2016	12,374	10339	13171	15,764
SCADA On-Going Upgrade	2017	5,919	10738	13171	7,260
SCADA On-Going Upgrade	2018	11,832	11062	13171	14,088
SCADA On-Going Upgrade	2019	114,723	11281	13171	133,939
SCADA On-Going Upgrade	2020	54,509	11466	13171	62,616
SCADA On-Going Upgrade	2021	277,650	12149	13171	301,010
Well WL-8 Upgrades	2012	48	9308	13171	68
Well WL-8 Upgrades	2013	893	9547	13171	1,232
Well WL-12 Upgrades	2012	48	9308	13171	68
Well WL-12 Upgrades	2021	1,399	12149	13171	1,517
Gen System Improvements	2015	73,952	10039	13171	97,023
Gen System Improvements	2016	2,637	10339	13171	3,360
Gen System Improvements	2017	71,771	10738	13171	88,036
Gen System Improvements	2018	145,085	11062	13171	172,749
Gen System Improvements	2019	272,383	11281	13171	318,008
Gen System Improvements	2020	162,385	11466	13171	186,536
Gen System Improvements	2021	248,737	12149	13171	269,664
Auxiliary Pumping Stn	2014	4,416	9806	13171	5,931
Auxiliary Pumping Stn	2015	50,058	10039	13171	65,674
Auxiliary Pumping Stn	2016	27,496	10339	13171	35,029
Auxiliary Pumping Stn	2017	12,082	10738	13171	14,820
Auxiliary Pumping Stn	2018	37,458	11062	13171	44,600
Auxiliary Pumping Stn	2019	1,313,268	11281	13171	1,533,244
Auxiliary Pumping Stn	2020	86,079	11466	13171	98,881
Auxiliary Pumping Stn	2021	1,445	12149	13171	1,566
CLD Well Improvements	2018	510	11062	11392	525
CLD Well Improvements	2019	23,802	11281	13171	27,789
CLD Well Improvements	2020	20,834	11466	13171	23,933
CLD Well Improvements	2021	1,895	12149	13171	2,054
Kohler Tract Pump Station	2016	8,526	10339	13171	10,861
Kohler Tract Pump Station	2017	70,860	10738	13171	86,919
Kohler Tract Pump Station	2018	34,271	11062	13171	40,806
Kohler Tract Pump Station	2019	127,209	11281	13171	148,517
Kohler Tract Pump Station	2020	1,570,573	11466	13171	1,804,160
Kohler Tract Pump Station	2021	159,431	12149	13171	172,845
Upper System Pumping Station Improvements	2021	67,119	12149	13171	72,766
Far View Pump Station Demolition	2021	22,797	Excluded - Pending Project Completion		
		<u>\$5,103,171</u>	<u>\$5,904,431</u>		

Exhibit No. 3
Lehigh County Authority
Suburban Water - Central Lehigh Division
Lehigh County, Pennsylvania
Distribution Assets

Expenditure	Year Placed in Service	Original Cost	Cost Index Original	Current	Trended Current Replacement Cost
Distribution					
Balance as of 12/31/2004	2004	\$17,953,436	7115	13171	\$33,234,461
2005 Additions	2005	1,397,738	7446	13171	2,472,401
2006 Additions	2006	1,586,685	7751	13171	2,696,125
2007 Additions	2007	1,134,082	7967	13171	1,874,868
2008 Additions	2008	2,325,782	8310	13171	3,686,323
2009 Additions	2009	1,235,541	8570	13171	1,898,861
2010 Additions	2010	891,843	8799	13171	1,334,998
2011 Additions	2011	249,454	9070	13171	362,252
		\$26,774,561			\$47,560,290
Additions since 2011					
Distribution Mains	2012	\$18,641			Excluded Repairs
Distribution Mains	2013	13,853			Excluded Repairs
Distribution Mains	2014	22,281			Excluded Repairs
Distribution Mains	2015	22,992			Excluded Repairs
Meter Installation for New Customers	2012	81,664			Excluded Contribution
Meter Installation for New Customers	2013	101,173			Excluded Contribution
Meter Installation for New Customers	2014	85,560			Excluded Contribution
Meter Installation for New Customers	2015	98,957			Excluded Contribution
Meter Installation for New Customers	2016	141,772			Excluded Contribution
Meter Installation for New Customers	2017	132,492			Excluded Contribution
Meter Installation for New Customers	2018	103,097			Excluded Contribution
Meter Installation for New Customers	2019	80,788			Excluded Contribution
Meter Installation for New Customers	2020	65,963			Excluded Contribution
Meter Installation for New Customers	2021	29,283			Excluded Contribution
Meter Installation for Existing Customers	2012	44,448	9308	13171	\$62,894
Meter Installation for Existing Customers	2013	16,641	9547	13171	22,959
Meter Installation for Existing Customers	2014	19,989	9806	13171	26,847
Meter Installation for Existing Customers	2015	5,479	10039	13171	7,188
Meter Installation for Existing Customers	2016	4,065	10339	13171	5,178
Meter Installation for Existing Customers	2017	6,610	10738	13171	8,108
Meter Installation for Existing Customers	2018	4,904	11062	13171	5,840
Meter Installation for Existing Customers	2019	20,144	11281	13171	23,519
Meter Installation for Existing Customers	2020	3,565	11466	13171	4,095
Meter Installation for Existing Customers	2021	4,510	12149	13171	4,889
Dries Waterline Ext	2012	573	9308	13171	811
Wat Sys Optimization	2014	1,336	9806	13171	1,794
Wat Sys Optimization	2015	6,336	10039	13171	8,312
Wat Sys Optimization	2016	913	10339	13171	1,163
Dries Waterline-Upsizing	2012	118	9308	13171	167
Kohler Tract Main Extension	2018	13,593	11062	13171	16,185
Kohler Tract Main Extension	2019	167,259	11281	13171	195,275
Kohler Tract Main Extension	2020	46,708	11466	13171	53,654
Kohler Tract Main Extension	2021	6,204	12149	13171	6,726

Exhibit No. 3
Lehigh County Authority
Suburban Water - Central Lehigh Division
Lehigh County, Pennsylvania
Distribution Assets

Expenditure	Year Placed in Service	Original Cost	Cost Index		Trended Current Replacement Cost
			Original	Current	
Indian Creek Rd. Main Extension	2018	1,278	11062	13171	1,521
Indian Creek Rd. Main Extension	2019	185,635	11281	13171	216,730
Indian Creek Rd. Main Extension	2020	8,189	11466	13171	9,407
		\$568,494			\$683,260

Exhibit 4
Lehigh County Authority
Suburban Water - North Whitehall Division
Lehigh County, Pennsylvania
Summary of Capital Costs - Thru 2011

	Year	Total System Costs	Original Cost							
			Distribution	% of Total	Capacity	% of Total	Meters/ Services	% of Total	Hydrants	% of Total
<u>Financed thru Reserves:</u>										
Original Acquisition Costs:										
Penn Hills	1989	\$91,997	\$55,566	60.4%	\$23,735	25.8%	\$12,696	13.8%	\$0	0.0%
Crestwood	1991	123,946	78,706	63.5%	28,136	22.7%	17,105	13.8%	-	0.0%
Schnecksville North	1991	228,946	97,531	42.6%	77,384	33.8%	41,668	18.2%	12,363	5.4%
Other Costs:										
NW Interconnection	1991	\$2,874	\$2,874	100.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%
NW Interconnection	1992	136,629	136,629	100.0%	-	0.0%	-	0.0%	-	0.0%
NW Interconnection	1993	4,705	4,705	100.0%	-	0.0%	-	0.0%	-	0.0%
NW Interconnection	1995	209	209	100.0%	-	0.0%	-	0.0%	-	0.0%
NW Interconnection	2011	9,218					\$1,536		\$7,682	
Penn Hills System Improv.	1990	3,851	-	0.0%	3,851	100.0%	-	0.0%	-	0.0%
Penn Hills System Improv.	1991	316	-	0.0%	316	100.0%	-	0.0%	-	0.0%
Crestwood System Improv.	1992	4,479	-	0.0%	4,479	100.0%	-	0.0%	-	0.0%
NL System Modifications	1992	2,856	-	0.0%	2,856	100.0%	-	0.0%	-	0.0%
NL System Modifications	1993	16,181	-	0.0%	16,181	100.0%	-	0.0%	-	0.0%
NL System Modifications	1996	9,110	-	0.0%	9,110	100.0%	-	0.0%	-	0.0%
Schnecksville Elementary	2011	1,338		0.0%		0.0%	1,338	100.0%	-	0.0%
Schnecksville North - Sec 4	1992	1,775	1,775	100.0%	-	0.0%	-	0.0%	-	0.0%
Schnecksville North - Sec 4	1993	2,732	2,732	100.0%	-	0.0%	-	0.0%	-	0.0%
Schnecksville North - Sec 4	1994	15	15	100.0%	-	0.0%	-	0.0%	-	0.0%
Schnecksville North - Sec 4	1995	69	69	100.0%	-	0.0%	-	0.0%	-	0.0%
Schnecksville North - Sec 4	1996	596	596	100.0%	-	0.0%	-	0.0%	-	0.0%
Schnecksville North - Sec 4	1997	909	909	100.0%	-	0.0%	-	0.0%	-	0.0%
Schnecksville North - Sec 4	1998	155	155	100.0%	-	0.0%	-	0.0%	-	0.0%
Schnecksville North - Sec 4	2011	6,055					6,055		-	
King's IGA	1991	749	749	100.0%	-	0.0%	-	0.0%	-	0.0%
King's IGA	1992	483	483	100.0%	-	0.0%	-	0.0%	-	0.0%
King's IGA	1994	13,779	13,779	100.0%	-	0.0%	-	0.0%	-	0.0%
King's IGA	1995	5,751	5,751	100.0%	-	0.0%	-	0.0%	-	0.0%
King's IGA	1996	42	42	100.0%	-	0.0%	-	0.0%	-	0.0%

Exhibit 4
Lehigh County Authority
Suburban Water - North Whitehall Division
Lehigh County, Pennsylvania
Summary of Capital Costs - Thru 2011

	Year	Total System Costs	Original Cost						
			Distribution	% of Total	Capacity	% of Total	Meters/ Services	% of Total	Hydrants Total
King's IGA	1997	337	337	100.0%	-	0.0%	-	0.0%	-
King's IGA	2011	1,680					650		1,029
Union Lutheran Church	2011	2,054	-	0.0%	-	0.0%	2,054	100.0%	-
Visions Child Care	2011	863	-	0.0%	-	0.0%	863	100.0%	-
Crestwood Pump Station Repairs	2003	85,786	-	0.0%	85,786	100.0%	-	0.0%	-
Crestwood Pump Station Repairs	2004	1,335	-	0.0%	1,335	100.0%	-	0.0%	-
Crestwood Interconnection	2004	8,618	-	0.0%	8,618	100.0%	-	0.0%	-
Sand Spring Acquisition	2004	55,292	37,599	68.0%	6,690	12.1%	6,967	12.6%	4,036
NWIP Lot 10	2011	1,262	-	0.0%	-	0.0%	1,262	100.0%	-
NWIP Lot 11	2011	992	-	0.0%	-	0.0%	992	100.0%	-
CVS	2011	1,355	-	0.0%	-	0.0%	1,355	100.0%	-
NWIP Lots 19/20	2011	1,013	-	0.0%	-	0.0%	1,013	100.0%	-
Orefield Cold Storage	2005	4,372	-	0.0%	4,372	100.0%	-	0.0%	-
Orefield Cold Storage	2006	337	-	0.0%	337	100.0%	-	0.0%	-
Orefield Cold Storage	2007	300	-	0.0%	300	100.0%	-	0.0%	-
Orefield Cold Storage	2008	183	-	0.0%	183	100.0%	-	0.0%	-
Orefield Cold Storage	2011	72					72		-
NWIP Lot 3	2011	1,158	-	0.0%	-	0.0%	1,158	100.0%	-
Gateway North	2002	4,451	4,451	100.0%	-	0.0%	-	0.0%	-
Gateway North	2003	85	85	100.0%	-	0.0%	-	0.0%	-
Gateway North	2004	303	303	100.0%	-	0.0%	-	0.0%	-
Gateway North	2011	1,621					866		756
NWIP Lots 5/6	2011	865	-	0.0%	-	0.0%	865	100.0%	-
Tantoros Office Bldg	2011	300	-	0.0%	-	0.0%	300	100.0%	-
OVEW Subd - Ph 2	1993	6,373	6,373	100.0%	-	0.0%	-	0.0%	-
OVEW Subd - Ph 2	1994	4,440	4,440	100.0%	-	0.0%	-	0.0%	-
OVEW Subd - Ph 2	1995	5,295	5,295	100.0%	-	0.0%	-	0.0%	-
OVEW Subd - Ph 2	1996	872	872	100.0%	-	0.0%	-	0.0%	-
OVEW Subd - Ph 2	2011	3,983					1,761		2,222
OVEW Subd - Ph 3	1997	901	901	100.0%	-	0.0%	-	0.0%	-
OVEW Subd - Ph 3	1998	178	178	100.0%	-	0.0%	-	0.0%	-

Exhibit 4
Lehigh County Authority
Suburban Water - North Whitehall Division
Lehigh County, Pennsylvania
Summary of Capital Costs - Thru 2011

	Year	Total System Costs	Original Cost							
			Distribution	% of Total	Capacity	% of Total	Meters/ Services	% of Total	Hydrants	% of Total
OVEW Subd - Ph 3	2011	426					226		200	
True Life Ministries	1995	126	67	53.2%	59	46.8%	-	0.0%	-	0.0%
True Life Ministries	1996	3,616	1,930	53.4%	1,686	46.6%	-	0.0%	-	0.0%
True Life Ministries	1997	2,194	1,171	53.4%	1,023	46.6%	-	0.0%	-	0.0%
True Life Ministries	2011	312					31		281	
Allentown Teachers CU	2011	949	-	0.0%	-	0.0%	949	100.0%	-	0.0%
NP IP Lot 18	2011	1,150	-	0.0%	-	0.0%	1,150	100.0%	-	0.0%
Golden Asset Investments	2011	434	-	0.0%	-	0.0%	434	100.0%	-	0.0%
Community Fire Co # 1	2005	6,566	6,566	100.0%	-	0.0%	-	0.0%	-	0.0%
Community Fire Co # 1	2006	357	357	100.0%	-	0.0%	-	0.0%	-	0.0%
Community Fire Co # 1	2007	40	40	100.0%	-	0.0%	-	0.0%	-	0.0%
Community Fire Co # 1	2011	757			-		192		565	
NWIP Lot 17	2011	776	-	0.0%	-	0.0%	776	100.0%	-	0.0%
DiCarlo Land Development	2002	1,688	1,688	100.0%	-	0.0%	-	0.0%	-	0.0%
DiCarlo Land Development	2011	686					330		356	
NWIP Lots 5&6 Self Storage	2011	472	-	0.0%	-	0.0%	472	100.0%	-	0.0%
Gateway View	2005	4,162	4,162	100.0%	-	0.0%	-	0.0%	-	0.0%
Gateway View	2006	101	101	100.0%	-	0.0%	-	0.0%	-	0.0%
Gateway View	2007	203	203	100.0%	-	0.0%	-	0.0%	-	0.0%
Gateway View	2008	688	688	100.0%	-	0.0%	-	0.0%	-	0.0%
Gateway View	2011	623					248		375	
NWIP Lot 14 - A-town Valve	2011	1,078	-	0.0%	-	0.0%	1,078	100.0%	-	0.0%
NWIP Lot 15	2011	2,014	-	0.0%	-	0.0%	2,014	100.0%	-	0.0%
Parkland Court	2011	1,064	-	0.0%	-	0.0%	1,064	100.0%	-	0.0%
OVEW Est 4, Lots 91 & 92	2011	1,041	-	0.0%	-	0.0%	1,041	100.0%	-	0.0%
Parkland Pointe	2008	12,153	12,153	100.0%	-	0.0%	-	0.0%	-	0.0%
Parkland Pointe	2009	1,004	1,004	100.0%	-	0.0%	-	0.0%	-	0.0%
Parkland Pointe	2010	743	743	100.0%	-	0.0%	-	0.0%	-	0.0%
Parkland Pointe	2011	3,302					1,636		1,666	
		\$915,167	\$494,982		\$276,437		\$112,216		\$31,532	

Exhibit 4
Lehigh County Authority
Suburban Water - North Whitehall Division
Lehigh County, Pennsylvania
Summary of Capital Costs - Thru 2011

	Year	Total System Costs	Original Cost							
			Distribution	% of Total	Capacity	% of Total	Meters/ Services	% of Total	Hydrants	% of Total
<u>Financed thru Debt:</u>										
Crestwood Paymts by Agmt	1992	\$3,400	\$3,400	100.0%	\$0	0.0%	\$0	0.0%	\$0	0.0%
Crestwood Paymts by Agmt	1993	1,700	1,700	100.0%	-	0.0%	-	0.0%	-	0.0%
Crestwood Paymts by Agmt	1994	850	850	100.0%	-	0.0%	-	0.0%	-	0.0%
Crestwood Paymts by Agmt	1995	850	850	100.0%	-	0.0%	-	0.0%	-	0.0%
Crestwood Paymts by Agmt	1996	850	850	100.0%	-	0.0%	-	0.0%	-	0.0%
Crestwood Paymts by Agmt	1997	425	425	100.0%	-	0.0%	-	0.0%	-	0.0%
Crestwood Paymts by Agmt	2001	1,275	1,275	100.0%	-	0.0%	-	0.0%	-	0.0%
Crestwood Paymts by Agmt	2002	425	425	100.0%	-	0.0%	-	0.0%	-	0.0%
Crestwood Paymts by Agmt	2004	850	850	100.0%	-	0.0%	-	0.0%	-	0.0%
Crestwood Paymts by Agmt	2011	1,875					1,875		-	
Sch North Paymts by Agmt	1995	9,053	9,053	100.0%	-	0.0%	-	0.0%	-	0.0%
Sch North Paymts by Agmt	1996	4,792	4,792	100.0%	-	0.0%	-	0.0%	-	0.0%
Sch North Paymts by Agmt	1997	3,727	3,727	100.0%	-	0.0%	-	0.0%	-	0.0%
Sch North Paymts by Agmt	1998	2,131	2,131	100.0%	-	0.0%	-	0.0%	-	0.0%
Sch North Paymts by Agmt	1999	5,325	5,325	100.0%	-	0.0%	-	0.0%	-	0.0%
Sch North Paymts by Agmt	2011	10,223					7,403		2,820	
NBMA Interconnection	1992	643,808	-	0.0%	643,808	100.0%	-	0.0%	-	0.0%
NBMA Interconnection	1993	296	-	0.0%	296	100.0%	-	0.0%	-	0.0%
Distribution Sys. Mains	1992	8,852	8,852	100.0%	-	0.0%	-	0.0%	-	0.0%
Distribution Sys. Mains	1993	517	517	100.0%	-	0.0%	-	0.0%	-	0.0%
Distribution Sys. Mains	1994	1,283	1,283	100.0%	-	0.0%	-	0.0%	-	0.0%
Distribution Sys. Mains	1995	485	485	100.0%	-	0.0%	-	0.0%	-	0.0%
Distribution Sys. Mains	1996	2,890	2,890	100.0%	-	0.0%	-	0.0%	-	0.0%
OVEW Supply	1993	2,168	-	0.0%	2,168	100.0%	-	0.0%	-	0.0%
OVEW Supply	1994	25,881	-	0.0%	25,881	100.0%	-	0.0%	-	0.0%
OVEW Supply	1995	35,112	-	0.0%	35,112	100.0%	-	0.0%	-	0.0%
OVEW Supply	1996	1,811	-	0.0%	1,811	100.0%	-	0.0%	-	0.0%
NW Main Ext.	1995	412,221	284,581	69.0%	127,640	31.0%	-	0.0%	-	0.0%
NW Main Ext.	1996	9,035	6,238	69.0%	2,797	31.0%	-	0.0%	-	0.0%
NW Main Ext.	1997	123	85	69.1%	38	30.9%	-	0.0%	-	0.0%

Exhibit 4
Lehigh County Authority
Suburban Water - North Whitehall Division
Lehigh County, Pennsylvania
Summary of Capital Costs - Thru 2011

	Year	Total System Costs	Original Cost							
			Distribution	% of	Capacity	% of	Meters/ Services	% of	Hydrants	% of
				Total		Total		Total		Total
NW Main Ext.	1998	317	219	69.1%	98	30.9%	-	0.0%	-	0.0%
NW Main Ext.	2011	86,372					76,718		9,653	
SN Pump St. Upgrade	1994	1,161	-	0.0%	1,161	100.0%	-	0.0%	-	0.0%
SN Pump St. Upgrade	1995	57,664	-	0.0%	57,664	100.0%	-	0.0%	-	0.0%
SN Pump St. Upgrade	1996	6,634	-	0.0%	6,634	100.0%	-	0.0%	-	0.0%
SN Pump St. Upgrade	1997	55	-	0.0%	55	100.0%	-	0.0%	-	0.0%
SSWC - OVEW Interconnection	1995	17,981	8,549	47.5%	9,432	52.5%	-	0.0%	-	0.0%
SSWC - OVEW Interconnection	1996	5,959	2,833	47.5%	3,126	52.5%	-	0.0%	-	0.0%
SSWC - OVEW Interconnection	1997	446	212	47.5%	234	52.5%	-	0.0%	-	0.0%
SSWC - OVEW Interconnection	2002	323	154	47.7%	169	52.3%	-	0.0%	-	0.0%
SSWC - OVEW Interconnection	2011	2,868					2,399		469	
SN - SSWC Interconnection	1995	28,868	28,868	100.0%	-	0.0%	-	0.0%	-	0.0%
SN - SSWC Interconnection	1996	5,091	5,091	100.0%	-	0.0%	-	0.0%	-	0.0%
SN - SSWC Interconnection	1997	802	802	100.0%	-	0.0%	-	0.0%	-	0.0%
SN - SSWC Interconnection	2011	11,581					10,603		978	
NBMA - Wayside Interc.	1995	52,428	-	0.0%	52,428	100.0%	-	0.0%	-	0.0%
NBMA - Wayside Interc.	1996	4,360	-	0.0%	4,360	100.0%	-	0.0%	-	0.0%
NBMA - Wayside Interc.	1997	693	-	0.0%	693	100.0%	-	0.0%	-	0.0%
NBMA - Wayside Interc.	2011	7,250					-		7,250	
Long Range System Plan	1994	5,951	-	0.0%	5,951	100.0%	-	0.0%	-	0.0%
Long Range System Plan	1995	924	-	0.0%	924	100.0%	-	0.0%	-	0.0%
Rt 873 Main Extension	1995	1,911	478	25.0%	1,433	75.0%	-	0.0%	-	0.0%
Rt 873 Main Extension	1996	168,386	42,096	25.0%	126,290	75.0%	-	0.0%	-	0.0%
Rt 873 Main Extension	1997	218	55	25.2%	163	74.8%	-	0.0%	-	0.0%
Rt 873 Main Extension	1998	124	31	25.0%	93	75.0%	-	0.0%	-	0.0%
Rt 873 Main Extension	1999	828	207	25.0%	621	75.0%	-	0.0%	-	0.0%
Rt 873 Main Extension	2011	14,910					7,455		7,455	
WLVC - Independance Dr Main Ext	1997	6,939	6,939	100.0%	-	0.0%	-	0.0%	-	0.0%
WLVC - Independance Dr Main Ext	1998	418	418	100.0%	-	0.0%	-	0.0%	-	0.0%
WLVC - Independance Dr Main Ext	1999	118	118	100.0%	-	0.0%	-	0.0%	-	0.0%
WLVC - Independance Dr Main Ext	2011	3,902					319		3,584	

Exhibit 4
Lehigh County Authority
Suburban Water - North Whitehall Division
Lehigh County, Pennsylvania
Summary of Capital Costs - Thru 2011

	Year	Total System Costs	Original Cost							
			Distribution	% of	Capacity	% of	Meters/ Services	% of	Hydrants	% of
				Total		Total		Total		Total
Rt 873 Main Extension - Ph 2	1996	16,797	8,964	53.4%	7,833	46.6%	-	0.0%	-	0.0%
Rt 873 Main Extension - Ph 2	1997	94,619	50,497	53.4%	44,122	46.6%	-	0.0%	-	0.0%
Rt 873 Main Extension - Ph 2	1998	371	198	53.4%	173	46.6%	-	0.0%	-	0.0%
Rt 873 Main Extension - Ph 2	1999	47	25	53.2%	22	46.8%	-	0.0%	-	0.0%
Rt 873 Main Extension - Ph 2	2000	689	368	53.4%	321	46.6%	-	0.0%	-	0.0%
Rt 873 Main Extension - Ph 2	2011	5,922					592		5,330	
Distribution Improvements	1997	4,607	4,607	100.0%	-	0.0%	-	0.0%	-	0.0%
Rt 309 Wtr Line Relocation	2007	152,153	-	0.0%	152,153	100.0%	-	0.0%	-	0.0%
Rt 309 Wtr Line Relocation	2008	3,294	-	0.0%	3,294	100.0%	-	0.0%	-	0.0%
Rt 309 Wtr Line Relocation	2009	443	-	0.0%	443	100.0%	-	0.0%	-	0.0%
Rt 309 Wtr Line Relocation	2011	13,555					7,286		6,269	
DiCarlo Main Ext	2002	213	213	100.0%	-	0.0%	-	0.0%	-	0.0%
Sand Spring Improvements	2011	59,109	-	0.0%		0.0%	59,109	100.0%	-	0.0%
Subtotal		\$2,039,533	\$502,526		\$1,319,441		\$173,759		\$43,808	
Total		\$2,954,700	\$997,508		\$1,595,878		\$285,975		\$75,339	

Planning Costs thru 2011:

N. Whitehall PSC Study	2011	\$42,081
NL Master Plan	2011	2,340
Neff's Laury Ext	2011	19,037
Schnecksville Water System	2011	9,606
Distribution Mains	2011	6,816
NLSA System Planning	2011	81,689
Kidspeace Acquisition	2011	8,910
LCCC Water Sys Evaluation	2011	14,769
Lehigh Career And Technical Institute	2011	11,691
		<u>\$196,939</u>

Exhibit 4
Lehigh County Authority
Suburban Water - North Whitehall Division
Lehigh County, Pennsylvania
Summary of Capital Costs - Thru 2011

	Cost Index		Trended Cost			
	Original	Current	Distribution	Capacity	Meters/ Services	Hydrants
<u>Financed thru Reserves:</u>						
Original Acquisition Costs:						
Penn Hills	4615	13171	\$158,596	\$67,745	\$36,235	\$0
Crestwood	4835	13171	214,399	76,644	46,594	-
Schnecksville North	4835	13171	265,681	210,798	113,507	33,678
Other Costs:						
NW Interconnection	4835	13171	\$6,772	\$0	\$0	\$0
NW Interconnection	4985	13171	312,254	-	-	-
NW Interconnection	5210	13171	10,287	-	-	-
NW Interconnection	5471	13171	435	-	-	-
NW Interconnection	9070	13171	\$0	\$0	1,930	9,649
Penn Hills System Improv.	4732	13171	-	9,272	-	-
Penn Hills System Improv.	4835	13171	-	745	-	-
Crestwood System Improv.	4985	13171	-	10,236	-	-
NL System Modifications	4985	13171	-	6,527	-	-
NL System Modifications	5210	13171	-	35,379	-	-
NL System Modifications	5622	13171	-	18,460	-	-
Schnecksville Elementary	9070	13171	-	-	1,681	-
Schnecksville North - Sec 4	4985	13171	4,057	-	-	-
Schnecksville North - Sec 4	5210	13171	5,973	-	-	-
Schnecksville North - Sec 4	5408	13171	32	-	-	-
Schnecksville North - Sec 4	5471	13171	144	-	-	-
Schnecksville North - Sec 4	5622	13171	1,208	-	-	-
Schnecksville North - Sec 4	5825	13171	1,778	-	-	-
Schnecksville North - Sec 4	5920	13171	298	-	-	-
Schnecksville North - Sec 4	9070	13171	-	-	7,605	-
King's IGA	4835	13171	1,765	-	-	-
King's IGA	4985	13171	1,104	-	-	-
King's IGA	5408	13171	29,029	-	-	-
King's IGA	5471	13171	11,975	-	-	-
King's IGA	5622	13171	85	-	-	-

Exhibit 4
Lehigh County Authority
Suburban Water - North Whitehall Division
Lehigh County, Pennsylvania
Summary of Capital Costs - Thru 2011

	Cost Index		Trended Cost			
	Original	Current	Distribution	Capacity	Meters/ Services	Hydrants
King's IGA	5825	13171	659	-	-	-
King's IGA	9070	13171	-	-	817	1,293
Union Lutheran Church	9070	13171	-	-	2,580	-
Visions Child Care	9070	13171	-	-	1,084	-
Crestwood Pump Station Repairs	6695	13171	-	145,985	-	-
Crestwood Pump Station Repairs	7115	13171	-	2,138	-	-
Crestwood Interconnection	7115	13171	-	13,799	-	-
Sand Spring Acquisition	7115	13171	60,202	10,712	11,155	6,463
NWIP Lot 10	9070	13171	-	-	1,586	-
NWIP Lot 11	9070	13171	-	-	1,246	-
CVS	9070	13171	-	-	1,702	-
NWIP Lots 19/20	9070	13171	-	-	1,272	-
Orefield Cold Storage	7446	13171	-	6,689	-	-
Orefield Cold Storage	7751	13171	-	495	-	-
Orefield Cold Storage	7967	13171	-	429	-	-
Orefield Cold Storage	8310	13171	-	251	-	-
Orefield Cold Storage	9070	13171	-	-	90	-
NWIP Lot 3	9070	13171	-	-	1,455	-
Gateway North	6538	13171	7,756	-	-	-
Gateway North	6695	13171	145	-	-	-
Gateway North	7115	13171	485	-	-	-
Gateway North	9070	13171	-	-	1,087	949
NWIP Lots 5/6	9070	13171	-	-	1,087	-
Tantoros Office Bldg	9070	13171	-	-	377	-
OVEW Subd - Ph 2	5210	13171	13,934	-	-	-
OVEW Subd - Ph 2	5408	13171	9,354	-	-	-
OVEW Subd - Ph 2	5471	13171	11,026	-	-	-
OVEW Subd - Ph 2	5622	13171	1,767	-	-	-
OVEW Subd - Ph 2	9070	13171	-	-	2,212	2,791
OVEW Subd - Ph 3	5825	13171	1,762	-	-	-
OVEW Subd - Ph 3	5920	13171	343	-	-	-

Exhibit 4
Lehigh County Authority
Suburban Water - North Whitehall Division
Lehigh County, Pennsylvania
Summary of Capital Costs - Thru 2011

	Cost Index		Trended Cost			
	Original	Current	Distribution	Capacity	Meters/ Services	Hydrants
OVEW Subd - Ph 3	9070	13171	-	-	284	251
True Life Ministries	5471	13171	140	123	-	-
True Life Ministries	5622	13171	3,911	3,416	-	-
True Life Ministries	5825	13171	2,290	2,001	-	-
True Life Ministries	9070	13171	-	-	39	353
Allentown Teachers CU	9070	13171	-	-	1,192	-
NP IP Lot 18	9070	13171	-	-	1,444	-
Golden Asset Investments	9070	13171	-	-	545	-
Community Fire Co # 1	7446	13171	10,046	-	-	-
Community Fire Co # 1	7751	13171	525	-	-	-
Community Fire Co # 1	7967	13171	57	-	-	-
Community Fire Co # 1	9070	13171	-	-	241	710
NWIP Lot 17	9070	13171	-	-	975	-
DiCarlo Land Development	6538	13171	2,941	-	-	-
DiCarlo Land Development	9070	13171	-	-	414	447
NWIP Lots 5&6 Self Storage	9070	13171	-	-	593	-
Gateway View	7446	13171	6,368	-	-	-
Gateway View	7751	13171	148	-	-	-
Gateway View	7967	13171	290	-	-	-
Gateway View	8310	13171	943	-	-	-
Gateway View	9070	13171	0	-	312	471
NWIP Lot 14 - A-town Valve	9070	13171	-	-	1,354	-
NWIP Lot 15	9070	13171	-	-	2,530	-
Parkland Court	9070	13171	-	-	1,336	-
OVEW Est 4, Lots 91 & 92	9070	13171	-	-	1,308	-
Parkland Pointe	8310	13171	16,661	-	-	-
Parkland Pointe	8570	13171	1,335	-	-	-
Parkland Pointe	8799	13171	962	-	-	-
Parkland Pointe	9070	13171	-	-	2,376	2,419
			\$1,179,920	\$621,843	\$250,243	\$59,475

Exhibit 4
Lehigh County Authority
Suburban Water - North Whitehall Division
Lehigh County, Pennsylvania
Summary of Capital Costs - Thru 2011

	Cost Index		Trended Cost			
	Original	Current	Distribution	Capacity	Meters/ Services	Hydrants
<u>Financed thru Debt:</u>						
Crestwood Paymts by Agmt	4985	13171	\$7,770	\$0	\$0	\$0
Crestwood Paymts by Agmt	5210	13171	3,717	-	-	-
Crestwood Paymts by Agmt	5408	13171	1,791	-	-	-
Crestwood Paymts by Agmt	5471	13171	1,770	-	-	-
Crestwood Paymts by Agmt	5622	13171	1,722	-	-	-
Crestwood Paymts by Agmt	5825	13171	831	-	-	-
Crestwood Paymts by Agmt	6342	13171	2,290	-	-	-
Crestwood Paymts by Agmt	6538	13171	741	-	-	-
Crestwood Paymts by Agmt	7115	13171	1,361	-	-	-
Crestwood Paymts by Agmt	9070	13171	\$0	\$0	\$2,355	-
Sch North Paymts by Agmt	5471	13171	18,851	-	-	-
Sch North Paymts by Agmt	5622	13171	9,710	-	-	-
Sch North Paymts by Agmt	5825	13171	7,289	-	-	-
Sch North Paymts by Agmt	5920	13171	4,101	-	-	-
Sch North Paymts by Agmt	6060	13171	10,011	-	-	-
Sch North Paymts by Agmt	9070	13171	-	-	9,298	3,542
NBMA Interconnection	4985	13171	-	1,471,368	-	-
NBMA Interconnection	5210	13171	-	647	-	-
Distribution Sys. Mains	4985	13171	20,230	-	-	-
Distribution Sys. Mains	5210	13171	1,130	-	-	-
Distribution Sys. Mains	5408	13171	2,703	-	-	-
Distribution Sys. Mains	5471	13171	1,010	-	-	-
Distribution Sys. Mains	5622	13171	5,856	-	-	-
OVEW Supply	5210	13171	-	4,740	-	-
OVEW Supply	5408	13171	-	54,525	-	-
OVEW Supply	5471	13171	-	73,112	-	-
OVEW Supply	5622	13171	-	3,670	-	-
NW Main Ext.	5471	13171	592,573	265,780	-	-
NW Main Ext.	5622	13171	12,640	5,668	-	-
NW Main Ext.	5825	13171	166	74	-	-

Exhibit 4
Lehigh County Authority
Suburban Water - North Whitehall Division
Lehigh County, Pennsylvania
Summary of Capital Costs - Thru 2011

	Cost Index		Trended Cost			
	Original	Current	Distribution	Capacity	Meters/ Services	Hydrants
NW Main Ext.	5920	13171	421	189	-	-
NW Main Ext.	9070	13171	-	-	96,364	12,125
SN Pump St. Upgrade	5408	13171	-	2,446	-	-
SN Pump St. Upgrade	5471	13171	-	120,072	-	-
SN Pump St. Upgrade	5622	13171	-	13,443	-	-
SN Pump St. Upgrade	5825	13171	-	108	-	-
SSWC - OVEW Interconnection	5471	13171	17,801	19,640	-	-
SSWC - OVEW Interconnection	5622	13171	5,741	6,334	-	-
SSWC - OVEW Interconnection	5825	13171	415	458	-	-
SSWC - OVEW Interconnection	6538	13171	268	294	-	-
SSWC - OVEW Interconnection	9070	13171	-	-	3,014	589
SN - SSWC Interconnection	5471	13171	60,111	-	-	-
SN - SSWC Interconnection	5622	13171	10,316	-	-	-
SN - SSWC Interconnection	5825	13171	1,569	-	-	-
SN - SSWC Interconnection	9070	13171	-	-	13,318	1,228
NBMA - Wayside Interc.	5471	13171	-	109,169	-	-
NBMA - Wayside Interc.	5622	13171	-	8,835	-	-
NBMA - Wayside Interc.	5825	13171	-	1,355	-	-
NBMA - Wayside Interc.	9070	13171	-	-	-	9,106
Long Range System Plan	5408	13171	-	12,537	-	-
Long Range System Plan	5471	13171	-	1,924	-	-
Rt 873 Main Extension	5471	13171	995	2,984	-	-
Rt 873 Main Extension	5622	13171	85,301	255,906	-	-
Rt 873 Main Extension	5825	13171	108	319	-	-
Rt 873 Main Extension	5920	13171	60	179	-	-
Rt 873 Main Extension	6060	13171	389	1,168	-	-
Rt 873 Main Extension	9070	13171	-	-	9,364	9,364
WLVC - Independance Dr Main Ext	5825	13171	13,571	-	-	-
WLVC - Independance Dr Main Ext	5920	13171	804	-	-	-
WLVC - Independance Dr Main Ext	6060	13171	222	-	-	-
WLVC - Independance Dr Main Ext	9070	13171	-	-	400	4,501

Exhibit 4
Lehigh County Authority
Suburban Water - North Whitehall Division
Lehigh County, Pennsylvania
Summary of Capital Costs - Thru 2011

	Cost Index		Trended Cost			
	Original	Current	Distribution	Capacity	Meters/ Services	Hydrants
Rt 873 Main Extension - Ph 2	5622	13171	18,164	15,872	-	-
Rt 873 Main Extension - Ph 2	5825	13171	98,760	86,292	-	-
Rt 873 Main Extension - Ph 2	5920	13171	381	333	-	-
Rt 873 Main Extension - Ph 2	6060	13171	47	41	-	-
Rt 873 Main Extension - Ph 2	6221	13171	674	588	-	-
Rt 873 Main Extension - Ph 2	9070	13171	-	-	744	6,695
Distribution Improvements	5825	13171	9,010	-	-	-
Rt 309 Wtr Line Relocation	7967	13171	-	217,571	-	-
Rt 309 Wtr Line Relocation	8310	13171	-	4,516	-	-
Rt 309 Wtr Line Relocation	8570	13171	-	589	-	-
Rt 309 Wtr Line Relocation	9070	13171	-	-	9,152	7,874
DiCarlo Main Ext	6538	13171	371	-	-	-
Sand Spring Improvements	9070	13171	-	-	74,245	-
Subtotal			\$1,033,763	\$2,762,745	\$218,254	\$55,026
Total			\$2,213,682	\$3,384,587	\$468,498	\$114,500

Planning Costs thru 2011:

N. Whitehall PSC Study	9070	13171	\$52,857
NL Master Plan	9070	13171	2,939
Neff's Laury Ext	9070	13171	23,912
Schnecksville Water System	9070	13171	12,066
Distribution Mains	9070	13171	8,561
NLSA System Planning	9070	13171	102,607
Kidspeace Acquisition	9070	13171	11,192
LCCC Water Sys Evaluation	9070	13171	18,551
Lehigh Career And Technical Institute	9070	13171	14,685
			<u>\$247,370</u>

Exhibit 5
Lehigh County Authority
Suburban Water - North Whitehall Division
Lehigh County, Pennsylvania
Additional Assets since 2011

	Year	Original Cost		Cost Index		Trended Cost	
		Distribution	Capacity	Original	Current	Distribution	Capacity
Assets							
Meter Installation for New Customers	2012	\$1,172				Excluded Contribution	
Meter Installation for New Customers	2013	1,558				Excluded Contribution	
Meter Installation for New Customers	2014	1,138				Excluded Contribution	
Meter Installation for New Customers	2021	58				Excluded Contribution	
Distribution Mains	2014	98				Excluded Repairs	
Distribution Mains	2015	875				Excluded Repairs	
Crestwood Alt. Water Supply	2012		\$1,548	9308	13171		\$2,191
Crestwood Alt. Water Supply	2014		3,244	9806	13171		4,357
Crestwood Alt. Water Supply	2015		37,444	10039	13171		49,125
Crestwood Alt. Water Supply	2016		47,074	10339	13171		59,970
Crestwood Alt. Water Supply	2017		151,987	10738	13171		186,430
Crestwood Alt. Water Supply	2018		205,643	11062	13171		244,854
Crestwood Alt. Water Supply	2019		108	11281	13171		126
Meter Installation for Existing Customers	2012	\$1,972		9308	13171	\$2,790	
Meter Installation for Existing Customers	2013	1,010		9547	13171	1,393	
Meter Installation for Existing Customers	2014	2,447		9806	13171	3,286	
System Improvements	2020		3,209	11466	13171		3,686
System Improvements	2021		34,710	12149	13171		37,631
		\$5,429	\$484,968			\$7,470	\$588,371

Exhibit 6
Lehigh County Authority
Suburban Water - Washington Township
Lehigh County, Pennsylvania
Assets

	<u>Total Costs</u>	<u>Distribution</u>	<u>Transmission</u>	<u>Capacity</u>	<u>Metering</u>	<u>Hydrants</u>	<u>Services</u>
System Improvements	\$549,264	\$0	\$0	\$549,264	\$0	\$0	\$0
Slatington Interconnection	85,592	-	85,592	-	-	-	-
System Acquisition	23,817	20,483	-	-	1,429	715	1,191
WT Main Replacement	2,594,205	28.8%	62.4%			2.9%	5.9%
		747,131	1,618,784	-	-	75,232	153,058
Total	\$3,252,878	\$767,614	\$1,704,377	\$549,264	\$1,429	\$75,947	\$154,249

Exhibit 7
Lehigh County Authority
Suburban Water - Washington Township
Lehigh County, Pennsylvania
Additional Assets since 2011

	Year	Original Cost		Cost Index		Trended Cost	
		Distribution	Capacity	Original	Current	Distribution	Capacity
Assets							
Meter Installation for New Customers	2012	\$218				Excluded Contribution	
Meter Installation for New Customers	2013	598				Excluded Contribution	
Meter Installation for New Customers	2014	326				Excluded Contribution	
Distribution Mains	2015	50				Excluded Repairs	
Meter Installation for Existing Customers	2012	1,685		9308	13171	\$2,384	
Meter Installation for Existing Customers	2013	709		9547	13171	978	
Meter Installation for Existing Customers	2014	970		9806	13171	1,303	
		\$3,364	\$0			\$4,665	\$0

Exhibit 8
Lehigh County Authority
Suburban Water - Heidelberg Heights
Lehigh County, Pennsylvania
Assets

	Total Costs	Capacity					
		Land	PS Structure	Pumping	Purification	Reservoir	Wells
Acquisition	\$434,494	9.6%	7.9%	9.5%	0.5%	26.4%	5.3%
		\$41,711	\$34,325	\$41,277	\$2,172	\$114,706	\$23,028
Improvements Plan	326,700	-	91,800	-	-	143,800	14,490
Total	\$761,194	\$41,712	\$126,125	\$41,277	\$2,172	\$258,507	\$37,518

Distribution	Metering	Services	Hydrants
26.0%	3.5%	10.0%	1.3%
\$112,968	\$15,207	\$43,449	\$5,648
23,790	52,820	-	-
\$136,758	\$68,027	\$43,449	\$5,648

Exhibit 9
Lehigh County Authority
Suburban Water - Heidelberg Heights
Lehigh County, Pennsylvania
Additional Assets since 2011

	Year	Original Cost		Cost Index		Trended Cost	
		Distribution	Capacity	Original	Current	Distribution	Capacity
Assets							
Meter Installation for New Customers	2012	\$109				Excluded Contribution	
Meter Installation for New Customers	2013	204				Excluded Contribution	
Meter Installation for New Customers	2014	99				Excluded Contribution	
System Improvements	2016		10,210	10339	13171		13,008
System Improvements	2017		854	10738	13171		1,047
System Improvements	2018		4,644	11062	13171		5,530
System Improvements	2019		137	11281	13171		160
		\$0	\$15,845			\$0	\$19,744

Exhibit No. 10
Lehigh County Authority
Suburban Water - Small Water Systems
Lehigh County, Pennsylvania
Capacity Assets

			Placed in Service	Original Cost	Cost Index		Trended Current
					Original	Current	Replacement Cost
Beverly Hills							
Acquisition Cost							
Land	Apr	2005		\$1,794			\$1,794
Pump Station Structure	Apr	2005		4,341	7355	13171	7,773
Electrical/Pumping	Apr	2005		2,550	7355	13171	4,567
Purification	Apr	2005		1,129	7355	13171	2,021
Well	Apr	2005		4,498	7355	13171	8,055
Improvements	Oct	2005		6,180	7563	13171	10,763
				\$20,491			\$34,971
Mill Creek							
Acquisition Cost							
Land	Mar	2005		\$1,344			\$1,344
Pump Station Structure	Mar	2005		1,440	7309	13171	2,595
Electrical/Pumping	Mar	2005		1,357	7309	13171	2,446
Purification	Mar	2005		239	7309	13171	430
Well	Mar	2005		3,410	7309	13171	6,145
				\$7,790			\$12,960
Pine Lakes							
Acquisition Cost							
Pump Station Structure	Mar	2002		\$1,405	6502	13171	\$2,846
Electrical/Pumping	Mar	2002		2,355	6502	13171	4,771
Purification	Mar	2002		509	6502	13171	1,031
Wells	Mar	2002		2,248	6502	13171	4,554
				\$6,517			\$13,201
Clearview Farms Estates							
Acquisition Cost							
Land	Feb	2005		\$454			\$454
Pump Station Structure	Feb	2005		1,473	7298	13171	2,658
Electrical/Pumping	Feb	2005		1,060	7298	13171	1,913
Purification	Feb	2005		454	7298	13171	819
Well	Feb	2005		4,883	7298	13171	8,812
				\$8,323			\$14,655
Madison Park North							
Acquisition Cost							
Land	Jul	2010		\$17,962			\$17,962
Pump Station Structure	Jul	2010		39,690	8844	13171	59,109
Electrical/Pumping	Jul	2010		46,932	8844	13171	69,894
Purification	Jul	2010		2,897	8844	13171	4,314
Reservoir	Jul	2010		80,828	8844	13171	120,374
Well	Jul	2010		10,719	8844	13171	15,963
				\$199,028			\$287,617

Exhibit No. 10
Lehigh County Authority
Suburban Water - Small Water Systems
Lehigh County, Pennsylvania
Capacity Assets

	Placed in Service	Original Cost	Cost Index		Trended Current Replacement Cost	
			Original	Current		
Upper Milford Central						
Acquisition Cost						
Land	Apr	2007	\$9,422		\$9,422	
Pump Station Structure	Apr	2007	16,912	Replaced		
Electrical/Pumping	Apr	2007	6,523	Replaced		
Purification	Apr	2007	2,416	7865	13171	4,046
Reservoir	Apr	2007	27,059	7865	13171	45,314
Well	Apr	2007	21,985	7865	13171	36,817
			\$60,882			\$95,599
			\$303,030			\$459,004

Exhibit No. 11
Lehigh County Authority
Suburban Water - Small Water Systems
Lehigh County, Pennsylvania
Distribution Assets

			Placed in Service	Original Cost	Cost Index		Trended Current
					Original	Current	Replacement Cost
Beverly Hills							
Acquisition Cost							
Distribution	Apr	2005		\$30,508	7355	13171	\$54,633
Metering	Apr	2005		1,975	7355	13171	3,537
				\$32,483			\$58,170
Mill Creek							
Acquisition Cost							
Distribution	Mar	2005		\$13,127	7309	13171	\$23,655
Metering	Mar	2005		559	7309	13171	1,008
				\$13,686			\$24,663
Pine Lakes							
Acquisition Cost							
Distribution	Mar	2002		\$3,747	6502	13171	\$7,590
Metering	Mar	2002		2,275	6502	13171	4,608
Services	Mar	2002		843	6502	13171	1,708
				\$6,865			\$13,906
Clearview Farms Estates							
Acquisition Cost							
Distribution	Feb	2005		\$19,663	7298	13171	\$35,486
Metering	Feb	2005		777	7298	13171	1,403
				\$20,440			\$36,890
Madison Park North							
Acquisition Cost							
Distribution	Jul	2010		\$37,950	8844	13171	\$56,518
Metering	Jul	2010		15,065	8844	13171	22,436
Services	Jul	2010		27,812	8844	13171	41,419
Hydrants	Jul	2010		9,850	8844	13171	14,669
				\$90,677			\$135,042
Upper Milford Central							
Acquisition Cost							
Distribution	Apr	2007		\$148,823	7865	13171	\$249,225
Metering	Apr	2007		8,456	7865	13171	14,161
				\$157,279			\$263,386
				\$321,431			\$532,058

Exhibit 12
Lehigh County Authority
Suburban Water - Small Water Systems
Lehigh County, Pennsylvania
Distribution Assets

	Year	Original Cost		Cost Index		Trended Cost	
		Distribution	Capacity	Original	Current	Distribution	Capacity
Beverly Hills							
Meter Installation for New Customers	2012	\$495				Excluded Contribution	
Meter Installation for New Customers	2013	105				Excluded Contribution	
System Improvements	2018		\$199	11062	13171		\$237
Mill Creek							
Meter Installation for Existing Customers	2012	\$92		9308	13171	\$130	
Meter Installation for Existing Customers	2013	99		9547	13171	137	
Pine Lakes							
Meter Installation for New Customers	2012	\$218				Excluded Contribution	
Meter Installation for New Customers	2013	420				Excluded Contribution	
Meter Installation for New Customers	2014	396				Excluded Contribution	
Meter Installation for Existing Customers	2017	428		10738	13171	\$525	
Pump Station Improvements	P 2012		\$151	9308	13171		\$213
Pump Station Improvements	2014		8,024	9806	13171		10,778
Pump Station Improvements	2015		57,043	10039	13171		74,838
Pump Station Improvements	2016		60,892	10339	13171		77,573
Pump Station Improvements	2017		216,738	10738	13171		265,855
Pump Station Improvements	2018		347,408	11062	13171		413,650
Pump Station Improvements	2019		1,568	11281	13171		1,830
Pump Station Improvements	2020		63	11466	13171		72
Clearview Farms Estates							
Meter Installation for New Customers	2012	\$218				Excluded Contribution	
Meter Installation for Existing Customers	2012	198		9308	13171	\$280	
Meter Installation for Existing Customers	2013	291		9547	13171	402	
Meter Installation for Existing Customers	2014	168		9806	13171	226	
Meter Installation for Existing Customers	2018	90		11062	13171	108	
Meter Installation for Existing Customers	2019	46		11281	13171	53	
System Improvements	2018		\$96	11062	13171		\$114
Madison Park North							
System Improvements	P 2012		\$26,350	9308	13171		\$37,286
System Improvements	2012		807	9308	13171		1,142
System Improvements	2013		337	9547	13171		465
System Improvements	2014		164	9806	13171		220
System Improvements	2018		298	11062	13171		354
System Improvements	2019		333	11281	13171		388

Upper Milford Central

Meter Installation for New Customers	2012	\$300				Excluded Contribution
Meter Installation for New Customers	2014	845				Excluded Contribution
Meter Installation for Existing Customers	2012	109		9308	13171	\$154
Meter Installation for Existing Customers	2014	643		9806	13171	864
System Improvements	2016	\$200	10339	13171		\$255
System Improvements	2017	888	10738	13171		1,090
System Improvements	2018	831	11062	13171		990
System Improvements	2019	163	11281	13171		190
System Improvements	2020	2,748	11466	13171		3,157
System Improvements	2021	617	12149	13171		669
Pump Station Replacement	2017	23,257	10738	13171		28,528
Pump Station Replacement	2018	100,977	11062	13171		120,231
Pump Station Replacement	2019	98,459	11281	13171		114,951
Pump Station Replacement	2020	1,339,975	11466	13171		1,539,265
Pump Station Replacement	2021	929,846	12149	13171		1,008,078
		2,165	\$3,218,431			\$2,879 \$3,702,419

Exhibit No. 13
Lehigh County Authority
Suburban Water - Central Lehigh Division
Lehigh County, Pennsylvania
Contributions

<u>Capacity Part</u>		<u>Year</u>	<u>Original Amount</u>	<u>Cost Index</u>		<u>Trended Amount</u>
				<u>Original</u>	<u>Current</u>	
Transmission						
Balance as of 12/31/2004		2004	\$7,558,226	7115	13171	\$13,991,393
2005 Additions		2005	445,294	7446	13171	787,662
2006 Additions		2006	2,555,514	7751	13171	4,342,378
2007 Additions		2007	827,297	7967	13171	1,367,690
2008 Additions		2008	1,868,231	8310	13171	2,961,113
2009 Additions		2009	143,563	8570	13171	220,637
2010 Additions		2010	406,861	8799	13171	609,029
2011 Additions		2011	156,081	9070	13171	226,658
CIA 2004		2004	2,331,840	7115	13171	\$4,316,580
CIA 2005		2005	44,051	7446	13171	77,920
CIA 2006		2006	158,364	7751	13171	269,095
CIA 2007		2007	51,955	7967	13171	85,892
CIA 2008		2008	371,739	8310	13171	589,200
CIA 2009		2009	108,098	8570	13171	166,132
CIA 2010		2010	32,510	8799	13171	48,664
CIA 2011		2011	21,355	9070	13171	31,011
			\$17,080,979			\$30,091,054
Land						
Balance as of 12/31/2004		2004	\$0	7115	13171	\$0
2005 Additions		2005	-	7446	13171	-
2006 Additions		2006	-	7751	13171	-
2007 Additions		2007	-	7967	13171	-
2008 Additions		2008	-	8310	13171	-
2009 Additions		2009	-	8570	13171	-
2010 Additions		2010	-	8799	13171	-
2011 Additions		2011	-	9070	13171	-
CIA 2010		2010	78,590	8799	13171	117,641
CIA 2011		2011	98,060	9070	13171	142,401
			\$176,650			\$260,042

Exhibit No. 13
Lehigh County Authority
Suburban Water - Central Lehigh Division
Lehigh County, Pennsylvania
Contributions

<u>Distribution Part</u>	<u>Year</u>	<u>Original Amount</u>	<u>Cost Index</u>		<u>Trended Amount</u>
			<u>Original</u>	<u>Current</u>	
Pump Station Structure					
Balance as of 12/31/2004	2004	\$147,820	7115	13171	\$273,637
2005 Additions	2005	185,603	7446	13171	328,305
2006 Additions	2006	-	7751	13171	-
2007 Additions	2007	-	7967	13171	-
2008 Additions	2008	-	8310	13171	-
2009 Additions	2009	-	8570	13171	-
2010 Additions	2010	-	8799	13171	-
2011 Additions	2011	-	9070	13171	-
CIA 2004	2004	75,428	7115	13171	\$139,628
CIA 2005	2005	18,390	7446	13171	32,529
CIA 2008	2008	137,576	8310	13171	218,056
CIA 2009	2009	66,289	8570	13171	101,877
CIA 2010	2010	503,859	8799	13171	754,225
		\$1,134,965			\$1,848,258
Electrical & Pumping					
Balance as of 12/31/2004	2004	\$411,531	7115	13171	\$761,805
2005 Additions	2005	516,970	7446	13171	914,447
2006 Additions	2006	-	7751	13171	-
2007 Additions	2007	-	7967	13171	-
2008 Additions	2008	-	8310	13171	-
2009 Additions	2009	-	8570	13171	-
2010 Additions	2010	-	8799	13171	-
2011 Additions	2011	-	9070	13171	-
CIA 2004	2004	177,439	7115	13171	\$328,466
CIA 2005	2005	51,162	7446	13171	90,498
CIA 2008	2008	161,007	8310	13171	255,193
CIA 2009	2009	77,579	8570	13171	119,229
CIA 2010	2010	284,124	8799	13171	425,305
		\$1,679,812			\$2,894,942

Exhibit No. 13
Lehigh County Authority
Suburban Water - Central Lehigh Division
Lehigh County, Pennsylvania
Contributions

<u>Capacity Part</u>		<u>Year</u>	<u>Original Amount</u>	<u>Cost Index</u> <u>Original</u> <u>Current</u>	<u>Trended Amount</u>
Purification					
Balance as of 12/31/2004		2004	\$0	7115 13171	\$0
2005 Additions		2005	-	7446 13171	-
2006 Additions		2006	-	7751 13171	-
2007 Additions		2007	-	7967 13171	-
2008 Additions		2008	-	8310 13171	-
2009 Additions		2009	-	8570 13171	-
2010 Additions		2010	-	8799 13171	-
2011 Additions		2011	-	9070 13171	-
CIA 2008		2008	9,752	8310 13171	13,369
CIA 2009		2009	4,699	8570 13171	6,246
CIA 2010		2010	14	8799 13171	18
			<u>\$14,465</u>		<u>\$19,634</u>
Wells					
Balance as of 12/31/2004		2004	\$0	7115 13171	\$0
2005 Additions		2005	-	7446 13171	-
2006 Additions		2006	-	7751 13171	-
2007 Additions		2007	-	7967 13171	-
2008 Additions		2008	-	8310 13171	-
2009 Additions		2009	-	8570 13171	-
2010 Additions		2010	-	8799 13171	-
2011 Additions		2011	-	9070 13171	-
CIA 2004		2004	5,130	7115 13171	\$9,496
CIA 2008		2008	140,848	8310 13171	223,242
CIA 2009		2009	67,866	8570 13171	104,301
CIA 2010		2010	157,174	8799 13171	235,273
			<u>\$371,018</u>		<u>\$572,312</u>
Reservoir					
Balance as of 12/31/2004		2004	\$0	7115 13171	\$0
2005 Additions		2005	-	7446 13171	-
2006 Additions		2006	-	7751 13171	-
2007 Additions		2007	-	7967 13171	-
2008 Additions		2008	-	8310 13171	-
2009 Additions		2009	-	8570 13171	-
2010 Additions		2010	-	8799 13171	-
2011 Additions		2011	-	9070 13171	-
CIA 2004		2004	352,860	7115 13171	\$653,196
			<u>\$352,860</u>		<u>\$653,196</u>

Exhibit No. 13
Lehigh County Authority
Suburban Water - Central Lehigh Division
Lehigh County, Pennsylvania
Contributions

<u>Distribution Part</u>		<u>Year</u>	<u>Original Amount</u>	<u>Cost Index</u>		<u>Trended Amount</u>
<u>Contribution</u>				<u>Original</u>	<u>Current</u>	
Distribution						
Balance as of 12/31/2004		2004	\$12,412,684	7115	13171	\$22,977,711
2005 Additions		2005	1,062,813	7446	13171	1,879,966
2006 Additions		2006	1,369,124	7751	13171	2,326,441
2007 Additions		2007	877,245	7967	13171	1,450,264
2008 Additions		2008	2,029,447	8310	13171	3,216,637
2009 Additions		2009	487,947	8570	13171	749,910
2010 Additions		2010	701,058	8799	13171	1,049,412
2011 Additions		2011	269,871	9070	13171	391,902
CIA 2004		2004	1,494,520	7115	13171	\$2,766,577
CIA 2005		2005	105,157	7446	13171	186,008
CIA 2006		2006	82,880	7751	13171	140,831
CIA 2007		2007	55,082	7967	13171	91,062
CIA 2008		2008	161,708	8310	13171	256,304
CIA 2009		2009	56,561	8570	13171	86,927
CIA 2010		2010	76,652	8799	13171	114,740
CIA 2011		2011	36,880	9070	13171	53,556
			\$21,279,629			\$37,738,249

Exhibit 14
Lehigh County Authority
Suburban Water - North Whitehall Division
Lehigh County, Pennsylvania
Summary of Contributions - Thru 2011

<u>Source</u>	<u>Month</u>	<u>Year</u>	<u>Original Contribution</u>			
			<u>Distribution</u>	<u>Capacity</u>	<u>Meters/ Services</u>	<u>Hydrants</u>
Plan Review & Inspection Costs *	Jan	2010	\$66,803	\$6,287	\$42,834	\$0
Parkland School District	Sep	2004	25,920	-	1,080	-
Sand Spring Water Co.	Jun	2005	161,070	-	10,620	5,310
Western Lehigh Valley Corp	Sep	1997	84,000	94,000	18,000	4,000
Rt 309 Wtr Line Relocation	Mar	2010	-	142,459	6,658	5,729
			<u>\$337,793</u>	<u>\$242,746</u>	<u>\$79,192</u>	<u>\$15,039</u>

Exhibit 14
Lehigh County Authority
Suburban Water - North Whitehall Division
Lehigh County, Pennsylvania
Summary of Contributions - Thru 2011

	Cost Index		Trended Contribution			
	Original	Current	Distribution	Capacity	Meters/ Services	Hydrants
<u>Source</u>						
Plan Review & Inspection Costs *	8660	13171	\$101,601	\$9,562	\$65,147	\$0
Parkland School District	7298	13171	46,779	-	1,949	-
Sand Spring Water Co.	7415	13171	286,104	-	18,864	9,432
Western Lehigh Valley Corp	5851	13171	189,091	211,602	40,519	9,004
Rt 309 Wtr Line Relocation	8671	13171	-	216,392	10,113	8,702
			\$623,576	\$437,556	\$136,593	\$27,139

Exhibit 15
Lehigh County Authority
Suburban Water - Washington Township
Lehigh County, Pennsylvania
Contributions

	<u>Total Costs</u>	<u>Distribution</u>	<u>Transmission</u>	<u>Capacity</u>	<u>Metering</u>	<u>Hydrants</u>	<u>Services</u>
Grant for Improv/ Interconnection	\$475,449	\$0	\$60,521	\$414,928	\$0	\$0	\$0
Grant for Main Replacement	570,000	28.8%	62.4%			2.9%	5.9%
		164,160	355,680	-	-	16,530	33,630
WT Reimbursement	84,945	28.8%	62.4%			2.9%	5.9%
		164,160	355,680	-	-	16,530	33,630
Total	\$1,130,394	\$328,321	\$771,882	\$414,928	\$0	\$33,060	\$67,260

Exhibit 16
Lehigh County Authority
Suburban Water - Heidelberg Heights
Lehigh County, Pennsylvania
Contributions

	Total Costs	Capacity					
		Land	PS Structure	Pumping	Purification	Reservoir	Wells
Grant (Dec. 2004)	\$450,000	5.5%	16.6%	5.4%	0.3%	34.0%	4.9%
		\$24,659	\$74,562	\$24,402	\$1,284	\$152,823	\$22,180
				Distribution	Metering	Services	Hydrants
				18.0%	8.9%	5.7%	0.7%
				\$80,848	\$40,216	\$25,686	\$3,339

Exhibit No. 17
Lehigh County Authority
Suburban Water - Central Lehigh Division
Lehigh County, Pennsylvania
Debt Service Summary

Interest Paid

Series	Total	Capacity	Distribution
Pennworks Note	\$205,615	\$175,527	\$30,088
PENNVEST (Meter Replacement Project)	93,288	79,637	13,651
2010 A Series Bonds	3,677,098	3,139,026	538,072
2015 Water Revenue Bonds	357,390	305,092	52,297
2015A Water Revenue Bonds	1,164,334	993,956	170,378
2017 Water Revenue Bonds	2,455,464	2,096,154	359,310
2021 Water Revenue Bonds	587,404	501,449	85,955
Total	<u>\$8,540,592</u>	<u>\$7,290,842</u>	<u>\$1,249,751</u>

Outstanding Principal

Series	Total	Capacity	Distribution
Pennworks Note	Retired 2021		
PENNVEST (Meter Replacement Project)	\$824,839	\$704,140	\$120,699
2010 A Series Bonds	Retired 2021		
2015 Water Revenue Bonds	Retired 2021		
2015A Water Revenue Bonds	Retired 2021		
2017 Water Revenue Bonds	14,250,000	12,164,788	2,085,212
2021 Water Revenue Bonds	17,445,000	14,892,261	2,552,739
Total	<u>\$32,519,839</u>	<u>\$27,761,189</u>	<u>\$4,758,650</u>

Exhibit 18
Lehigh County Authority
Suburban Water - Washington Township
Lehigh County, Pennsylvania
Debt

	Total	Distribution	Transmission	Capacity	Metering	Hydrants	Services
Outstanding Debt	\$12,449	28.8%	62.4%			2.9%	5.9%
		\$3,585	\$7,768			\$361	\$734

Interest Expense	2001	\$298
	2002	38,229
	2003	52,521
	2004	50,201
	2005	47,520
	2006	45,129
	2007	47,316
	2008	50,906
	2009	48,062
	2010	45,118
	2011	45,399
	2012 Thru 6/1	13,474
	2016	19,803
	2017	16,757
	2018	13,626
	2019	10,398
	2020	7,082
	2021	3,684
	2022	492
		<u>\$556,016</u>

	Total	Distribution	Transmission	Capacity	Metering	Hydrants	Services
Allocation of Interest	\$556,016	28.8%	62.4%			2.9%	5.9%
		\$160,132	\$346,954			\$16,124	\$32,805

Exhibit No. 19
Lehigh County Authority
Suburban Water - Central Lehigh Division
Lehigh County, Pennsylvania
System Capacity Calculation

	<u>Capacity (GPD)</u>
Central Lehigh Division	
Five Year Daily Average Capacity plus 17.3% (5 years growth)	11,637,316
North Whitehall Division	
Five Year Daily Average Capacity plus 53.15% (5 years growth)	712,873
Washington Township	
Total Supply Available in gallons Max Day per Slatington Agmt	140,000
Heidelberg Heights (1)	
Five Year Daily Average Capacity	30,457
Beverly Hills (1)	
Five Year Daily Average Capacity	6,824
Mill Creek (1)	
Five Year Daily Average Capacity	5,081
Pine Lakes (1)	
Five Year Daily Average Capacity	8,408
Clearview Farms Estates (1)	
Five Year Daily Average Capacity	9,048
Madison Park North (1)	
Five Year Daily Average Capacity	14,099
Upper Milford Central (1)	
Five Year Daily Average Capacity	20,286

(1) These communities have been fully developed.

Exhibit A1
Lehigh County Authority
Suburban Water - Arcadia West
Lehigh County, Pennsylvania
Calculation of Water Tapping Fee

A. Capacity Part	Exhibit Reference	Original Cost	Trended Cost
Pump Station Structure	A2	\$25,608	\$50,385
Electrical/Pumping	A2	56,752	111,664
Purification	A2	5,695	11,206
Reservoir	A2	41,832	82,309
Wells	A2	66,542	130,928
Additional Assets	A3	1,112,500	1,503,105
		<u>\$1,308,929</u>	<u>\$1,889,598</u>
Less: Contributions		-	-
Net Capital		<u>\$1,308,929</u>	<u>\$1,889,598</u>
Financing Costs for Capacity Part		-	-
Total Cost of Capacity Part		<u>\$1,308,929</u>	<u>\$1,889,598</u>
Plus: Interest Paid On Debt		-	n/a
Less: Outstanding Debt		n/a	-
Eligible Cost for Capacity Part		<u>\$1,308,929</u>	<u>\$1,889,598</u>
Total Capacity	A4	128,160	128,160
Capacity Tapping Fee per Gallon		\$10.21	\$14.74
Gallon per EDU for Capacity Part (1)		174.2	174.2
Capacity Tapping Fee per EDU		\$1,779.15	\$2,568.41

Exhibit A1
Lehigh County Authority
Suburban Water - Arcadia West
Lehigh County, Pennsylvania
Calculation of Water Tapping Fee

		Exhibit		Original Cost	Trended Cost
B. <u>Distribution Part</u>					
Distribution	A2			\$84,343	\$165,953
Services	A2			14,563	28,654
Metering	A2			3,172	6,241
Additional Assets	A3			1,069	1,513
				<u>\$103,147</u>	<u>\$202,361</u>
Less: Contributions				-	-
Net Capital				<u>\$103,147</u>	<u>\$202,361</u>
Financing Costs for Distribution Part				-	-
Total Cost of Distribution Part				<u>\$103,147</u>	<u>\$202,361</u>
Plus: Interest Paid On Debt				-	n/a
Less: Outstanding Debt				n/a	-
Eligible Cost for Capacity Part				<u>\$103,147</u>	<u>\$202,361</u>
Total Capacity	A4			128,160	128,160
Distribution Tapping Fee per Gallon				\$0.80	\$1.58
Gallon per EDU for Capacity Part (1)				174.2	174.2
Distribution Tapping Fee per EDU				\$140.20	\$275.06

Exhibit A1
Lehigh County Authority
Suburban Water - Arcadia West
Lehigh County, Pennsylvania
Calculation of Water Tapping Fee

		Exhibit	
C. <u>Special Purpose Part - Fire Service</u>		Original Cost	Trended Cost
Distribution	A2	\$42,108	\$82,852
PS Structure	A2	38,411	75,578
Electric & Pumping	A2	85,128	167,497
Reservoir	A2	249,136	490,198
Fire Hydrant	A2	7,642	15,036
		<u>\$422,425</u>	<u>\$831,160</u>
Less: Contributions		-	-
Net Capital		<u>\$422,425</u>	<u>\$831,160</u>
Financing Costs for Distribution Part		-	-
Total Cost of Distribution Part		<u>\$422,425</u>	<u>\$831,160</u>
Plus: Interest Paid On Debt		-	n/a
Less: Outstanding Debt		n/a	-
Eligible Cost for Capacity Part		<u>\$422,425</u>	<u>\$831,160</u>
Square footage of Buildings	A4	4,942,330	4,942,330
Special Purpose Fee per Square Foot		\$0.09	\$0.17
(1) Average Household Size Per 2020 Census for Weisenberg Township		2.68	
Gallons Per Capita Per Day Allowed Per Act 57 of 2003		<u>65</u>	
Total Gallons Per Day Per EDU		174.2	

Exhibit A2
Lehigh County Authority
Suburban Water - Arcadia West
Lehigh County, Pennsylvania
Assets

	Total Costs	Distribution	Capacity					
			PS Structure	Electric & Pumping	Purification	Reservoir	Wells	
Acquisition	\$720,932	17.5%	8.9%	19.7%	0.8%	40.4%	9.2%	
		\$126,451	\$64,019	\$141,879	\$5,695	\$290,968	\$66,542	
						Fire Hydrant	Services	Metering
						1.1%	2.0%	0.4%
						\$7,642	\$14,563	\$3,172

Determination of Fire Svc Portion of Costs

	Total Costs	Distribution	PS Structure	Electric & Pumping	Purification	Reservoir	Wells	Fire Hydrant
Capacity Portion	\$703,197	\$126,451	\$64,019	\$141,879	\$5,695	\$290,968	\$66,542	\$7,642
			40.0%	40.0%	100.0%	14.4%	100.0%	
Distribution	\$196,429		\$25,608	\$56,752	\$5,695	\$41,832	\$66,542	
	\$84,343	66.7%	\$84,343.13					
Fire Svc Portion								100%
	\$422,425	\$42,108	\$38,411	\$85,128	\$0	\$249,136	\$0	\$7,642

Exhibit A3
Lehigh County Authority
Suburban Water - Arcadia West
Lehigh County, Pennsylvania
Additional Assets since 2011

	Year	Original Cost		Cost Index		Trended Cost	
		Distribution	Capacity	Original	Current	Distribution	Capacity
Assets							
Meter Installation for New Customers	2012	\$109				Excluded Contribution	
Meter Installation for New Customers	2013	294				Excluded Contribution	
Meter Installation for New Customers	2014	1,634				Excluded Contribution	
Meter Installation for Existing Customers	2012	1,069		9308	13171	\$1,513	
System Improvements	P 2012		\$19,183	9308	13171		\$27,143
System Improvements	2012		106,193	9308	13171		150,264
System Improvements	2013		80,623	9547	13171		111,231
System Improvements	2014		825,689	9806	13171		1,108,984
System Improvements	2015		70,715	10039	13171		92,775
System Improvements	2016		8,987	10339	13171		11,448
System Improvements	2017		96	10738	13171		117
System Improvements	2019		500	11281	13171		584
System Improvements	2021		514	12149	13171		557
Water Tank Replacement	2020		70,550			Excluded Replacement	
Water Tank Replacement	2021		932,765			Excluded Replacement	
		\$1,069	\$1,112,500			\$1,513	\$1,503,105

Exhibit A4
Lehigh County Authority
Suburban Water - Arcadia West
Lehigh County, Pennsylvania
System Capacity Calculation

Source	Type	Entry Point	4-log (Entry Point) (GPM)	Well Pumping Rate (GPM)	Current Pumping Rate (GPM)	Limiting Factor	Capacity (GPD)
Well No. NL 15				95			136,800
Well No. NL 16				89			128,160
Combined Capacity							128,160

(1) Well No. NL 15 has been excluded as the largest local source.

Building Square Footage

	Address	Sq Footage
Arcadia West		
12684 Jetson Marketing	9775 Commerce Cir	225,000
12685 Batesville Casket Company	9770 Commerce Cir	83,000
12686 Kenco Logistics	9784 Commerce Cir	95,400
12687 P R E USA Inc	9735 Commerce Cir	67,000
12688 Advance Stores Inc Site 213020	9755 Commerce Cir	663,720
14962 DCT Commerce Circle LLC	9750 Commerce Cir	503,420
15752 Prologis Targeted Us Logistics Fund LP	9747 Commerce Cir A	211,130
16074 Pre USA Inc	9741 Commerce Cir	92,680
31195 Hearth And Home Technologies Inc	9747 Commerce Cir B	173,560
70614 Pre USA Inc	9729 Commerce Cir	80,000
		<u>2,194,910</u>
West Hills Business Center		
70255 National Distribution Center Lp	9645 West Hills Ct	980,000
70577 National Distribution Center Lp	9658 West Hills Ct- Bldg D	435,500
70578 National Distribution Center Lp	9677 West Hills Ct -Bldg B	231,670
70725 Behr Process Corp	9670 West Hills Ct - Bldg C	241,850
71175 National Distribution Center Lp	9606 West Hills Ct-Bldg E	415,170
71390 National Distribution Center Lp	9611 West Hills Ct	336,960
		<u>2,641,150</u>
Other		
71939 Sheetz, Inc.	2298 Golden Key Rd	6,800
17124 Northwestern Lehigh School Dis	2665 Golden Key Rd-Elem School	99,470
		<u>106,270</u>

Allocation of Bldg Square Footage

Arcadia West	2,194,910	For connections as of 12/1/21
West Hills Business Center	2,641,150	as of 12/1/21
Other	106,270	as of 12/1/21
Total	<u>4,942,330</u>	

Note: Equals square footage for those with private sprinklers.

MEMORANDUM

Date: August 22, 2022

To: Lehigh County Authority Board of Directors
From: Jason Peters, Project Coordinator
Charles Volk, Chief Capital Works Officer
Subject: Allentown Division - Water Main Replacement Program
Design Phase & Pipeline Prioritization Assessment Program for Cycles
7 and 8

MOTIONS / APPROVALS REQUESTED:

No.	Item	Amount
1	Capital Project Authorization – Design Phase & Pipe Prioritization Assessment Program Cycles 7 and 8	\$395,830
2	Professional Services Authorization – Gannett Fleming, Inc. (1), (2)	\$260,830

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

PROJECT OVERVIEW

The Operating Standards of the Lease Agreement (Agreement), as amended in 2020, requires Lehigh County Authority (LCA) to replace a total of four miles of aged spun and pit cast-iron water mains during the period of 2021 through 2024. Approximately one mile of water main replacements were completed in both 2021 and 2022, and Cycles 7 and 8 projects will address the Allentown Division (AD) main replacement lease requirements through 2024.

Cycles 7 and 8 include a little over two miles of water main to be designed and bid through the terms of this authorization. The excess length of over two miles is necessary to allow the main replacements to be constructed from intersection to intersection, thus allowing future replacements to be easily constructed without interruptions in service to area customers. The scope of the engineer's work also includes the Pipe Prioritization Assessment Program, which is a rolling 5-year plan of projected projects as required by the Agreement.

Given the complex nature of this project, which entails replacing mains in a densely populated urban area with many underground utilities, continuous traffic and various other work restrictions, close coordination with the City of Allentown (COA) public works and streets departments along with other outside agencies and private utilities (such as UGI) is essential to project success.

FINANCIAL

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

PROJECT STATUS

Pending Board approval of the Design Phase for Cycles 7 and 8.

THIS APPROVAL: DESIGN PHASE CYCLES 7 AND 8

In order to leverage continuity and efficiencies that resulted in successful prior water main replacement projects for LCA, we recommend retaining the services of Gannett Fleming, Inc. (Gannett) to provide design and Pipe Prioritization Assessment Program services for Cycles 7 and 8 of the Water Main Replacement Program. The following table summarizes the professional services to be performed:

Professional Services ⁽¹⁾
1. Administer the Pipe Prioritization Assessment Program.
2. Prepare the Pipe Prioritization Assessment Report for the projected 5-year plan for compliance with the Agreement; present report.
3. Coordinate with City Streets Program, other City departments, outside agencies and utilities.
4. Prepare plans and specifications for segments of main to be replaced.
5. Prepare and obtain regulatory and municipal permits as required.
6. Provide bidding services.

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

CONSULTANT BACKGROUND

Gannett has been our consultant for the AD Main Replacement Program in all prior City and Suburban cycles and we have established an excellent partnership and team relationship with the City of Allentown (COA) Office of Compliance. Gannett consistently provides clearly justified pipeline replacement prioritizations and detailed, comprehensive designs that have satisfied requirements. These requirements include scheduling and planning, permitting process, COA department approvals and cost sharing agreements as well as cooperatively working with other agencies and utility owners. The team effort has helped to cut down on design delays and minimize construction phase change orders.

FUTURE AUTHORIZATIONS

Construction phase

CAPITAL PROJECT AUTHORIZATION

PROJECT NO.:	AD-W-22-2	BUDGET FUND:	Allentown Div\Water\Capital
PROJECT TITLE:	Allentown Division -Water Main Replacement Program Cycles 7 and 8	PROJECT TYPE:	<input type="checkbox"/> Construction <input checked="" type="checkbox"/> Engineering Design <input type="checkbox"/> Equipment Purchase <input type="checkbox"/> Amendment
THIS AUTHORIZATION:	\$ 395,830		

DESCRIPTION AND BENEFITS:

Through the Operating Standards of the Lease Agreement (Agreement) as amended in 2020 Lehigh County Authority (LCA) is required to replace four miles of aged spun and/or pit cast-iron water mains during the period of 2021 through 2024. This Project covers Cycles 7 and 8 and consists of a little over two miles of water main replacement in 2023 and 2024. This work also includes administering and maintaining the Pipe Prioritization Assessment Program along with its projected 5-year plan. The water main replacements are critical in meeting the requirements of the Agreement and provide increased reliability of water service for our customers.

Allentown Division Water Main Replacement Project Cycle 7 and 8 – Design Phase *Please reference the cover Memo for additional information.*

+	REQUESTED THIS AUTHORIZATION	
	Design and Bid Phase	
	Staff	\$90,000
	Engineering Consultant – Gannett Fleming Pipe Prioritization Program, Design, & Bid phase Services	\$260,830
	Contingencies ⁽¹⁾	\$45,000
	Total This Authorization	\$395,830
Future Authorization		
	Construction Phase – Cycles 7 and 8	\$7,000,000
	Total Estimated Project	\$7,395,830

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

REVIEW AND APPROVALS:

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



Lehigh County Authority

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

PROFESSIONAL SERVICES AUTHORIZATION

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

Date: August 22, 2022

Requested By: Jason Peters

Approvals

Department Head: _____

Chief Executive

Officer: _____

Allentown Division - Water Main Replacement Program Cycles 7 and 8 – Design Phase

Gannett Fleming, Inc. will perform the pipe replacement prioritization, design and bid phase services for Cycles 7 and 8 of the Allentown Division Water Main Replacement Program. The following Professional Services are included:

Professional Services – Design and Bid Phase ⁽¹⁾
1. Administer the Pipe Prioritization Assessment Program
2. Prepare the Assessment Report for the projected 5-year plan for compliance with the Agreement.
3. Coordinate with City Streets Program, other City departments, outside agencies and utilities
4. Prepare plans and specifications for segments of main to be replaced
5. Perform permitting services (regulatory and municipal).
6. Perform bidding services.

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

Design Phase:

Cost Estimate (not to be exceeded without further authorization): \$260,830

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

(For Authority Use Only)

Authorization Completion:

Approval: _____ **Actual Cost:** _____ **Date:** _____

**LEHIGH COUNTY AUTHORITY
FINANCIAL STATEMENTS
JULY 2022**

LEHIGH COUNTY AUTHORITY
FINANCIAL STATEMENTS - SUMMARY
For the Period Ended July 31, 2022

	Consolidated Financial Statements														
	Month					Year To Date					FULL YEAR				
	Actual	Q3 FC	Prior Year	FC Var	PY Var	Actual	Q3 FC	Prior Year	FC Var	PY Var	Q3 FC	Budget	Prior Year	Bud Var	PY Var
Income Statement															
Suburban Water	879,081	607,518	361,246	271,563	517,835	1,860,198	1,588,638	722,233	271,560	1,137,964	2,539,927	2,094,223	4,780,026	445,704	(2,240,099)
Suburban Wastewater	(467,328)	(547,359)	148,857	80,030	(616,185)	(344,048)	(424,089)	1,912,101	80,040	(2,256,149)	749,444	1,788,879	(2,252,986)	(1,039,435)	3,002,431
City Division	769,054	613,858	488,081	155,196	280,972	4,536,387	4,386,448	2,562,613	149,939	1,973,774	3,988,788	2,194,319	4,431,771	1,794,469	(442,983)
Total LCA	1,180,806	674,017	998,184	506,789	182,622	6,052,537	5,550,997	5,196,947	501,539	855,590	7,278,160	6,077,421	6,958,811	1,200,738	319,349
Cash Flow Statement															
Suburban Water	223,571	(53,547)	625,332	277,117	(401,761)	1,226,001	677,958	137,924	548,043	1,088,077	2,209,792	402,292	(2,927,414)	1,807,500	5,137,205
Suburban Wastewater	(827,270)	(910,009)	106,115	82,739	(933,385)	(2,170,435)	(2,206,196)	(238,548)	35,761	(1,931,888)	4,336,317	4,353,353	(1,133,048)	(17,037)	5,469,365
City Division	1,191,849	1,133,977	994,572	57,872	197,277	3,667,089	3,614,238	6,973,812	52,851	(3,306,723)	5,975,916	5,439,552	9,094,925	536,364	(3,119,009)
Total LCA	588,150	170,421	1,726,020	417,729	(1,137,869)	2,722,654	2,086,000	6,873,189	636,655	(4,150,534)	12,522,024	10,195,198	5,034,463	2,326,826	7,487,561
Debt Service Coverage Ratio															
Suburban Water	4.70	3.66	4.77	1.04	(0.07)	2.36	2.20	3.27	0.15	(0.91)	2.14	2.03	5.84	0.10	(3.71)
Suburban Wastewater	1.06	(0.29)	9.29	1.35	(8.23)	7.92	7.73	11.39	0.19	(3.47)	10.24	10.82	6.56	(0.57)	3.68
City Division	2.27	2.18	2.01	0.08	0.26	2.17	2.15	1.90	0.01	0.26	1.92	1.67	1.79	0.25	0.13

LEHIGH COUNTY AUTHORITY
CONSOLIDATED FINANCIAL STATEMENTS
For the Period Ended July 31, 2022

STATEMENTS OF ACTIVITIES	Consolidated Financial Statements															
	Month				Year To Date				Q3 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
Operating Revenues:																
User Charges	1,645,139	852,292	3,943,682	6,441,113	8,799,783	8,575,981	26,269,616	43,645,380	15,449,114	18,636,993	46,269,365	80,355,472	15,321,204	20,282,051	46,388,630	81,991,885
Connection & System Charges	151,590	83,576	235,054	470,220	315,834	1,089,338	2,163,213	3,568,384	677,848	1,436,072	4,346,006	6,459,926	933,476	875,254	4,488,054	6,296,784
Other Miscellaneous Revenues	4,915	15	3,855	8,785	26,506	150	33,810	60,466	38,139	1,264	63,708	103,110	33,078	2,247	67,475	102,800
Total Operating Revenues	1,801,644	935,883	4,182,591	6,920,118	9,142,123	9,665,469	28,466,639	47,274,230	16,165,101	20,074,329	50,679,078	86,918,508	16,287,758	21,159,552	50,944,159	88,391,469
Operating Expenses:																
Personnel	170,782	59,770	884,482	1,115,034	1,826,574	759,114	6,489,167	9,074,854	3,542,771	1,603,771	11,739,043	16,885,585	3,135,717	1,557,088	12,623,714	17,316,519
Shared Services - General & Administrative	55,999	21,435	155,790	233,225	324,937	134,970	941,228	1,401,135	647,611	271,431	1,834,222	2,753,264	777,905	230,022	1,872,369	2,880,296
Utilities	32,866	19,412	129,745	182,024	307,146	171,247	1,016,540	1,494,933	500,644	299,771	1,760,155	2,560,570	520,914	355,937	2,037,742	2,914,594
Materials and Supplies	37,079	17,104	177,512	231,695	448,116	160,408	1,203,645	1,812,169	883,797	261,321	2,125,108	3,270,227	816,837	496,550	2,334,092	3,647,479
Miscellaneous Services	279,940	509,846	191,040	980,826	1,905,828	3,698,911	808,735	6,413,473	3,846,881	6,517,180	1,732,133	12,096,194	4,728,534	6,804,359	2,184,774	13,717,667
Treatment and Transportation	-	250,422	-	250,422	-	1,267,969	5,625	1,273,594	-	3,553,692	13,800	3,567,492	-	3,844,405	13,800	3,858,205
Depreciation and Amortization	251,752	516,262	521,492	1,289,506	1,756,927	3,613,791	3,650,528	9,021,245	3,007,580	6,552,653	6,178,570	15,738,803	3,063,453	5,996,555	6,178,570	15,238,577
Major Maintenance Expenses	1,292	4,404	27,936	33,632	6,006	20,445	180,037	206,488	-	-	-	-	-	-	4,206,200	4,206,200
Other Miscellaneous	-	-	-	-	-	-	5,200	5,200	40,092	23,954	4,206,200	4,270,246	-	-	-	-
Total Operating Expenses	829,711	1,398,655	2,087,998	4,316,364	6,575,533	9,826,854	14,300,704	30,703,091	12,469,376	19,083,774	29,589,231	61,142,381	13,043,359	19,284,917	31,451,261	63,779,537
Net Operating Profit	971,933	(462,772)	2,094,593	2,603,754	2,566,590	(161,386)	14,165,934	16,571,139	3,695,725	990,554	21,089,847	25,776,127	3,244,399	1,874,636	19,492,897	24,611,931
Non-Operating Income (Expense)																
Interest Income	7,675	10,124	68,896	86,695	32,391	42,564	128,661	203,617	49,796	67,440	62,209	179,445	50,125	87,943	176,419	314,487
Interest (Expense)	(100,425)	(15,705)	(1,394,435)	(1,510,565)	(702,929)	(110,403)	(9,758,208)	(10,571,539)	(1,169,877)	(192,700)	(17,163,269)	(18,525,845)	(1,200,301)	(173,721)	(17,474,997)	(18,849,019)
Other Miscellaneous	(102)	1,025	-	924	(35,855)	(114,824)	-	(150,679)	(35,718)	(115,850)	-	(151,568)	-	22	-	22
Net Non-Operating Income (Expense)	(92,852)	(4,556)	(1,325,539)	(1,422,947)	(706,393)	(182,663)	(9,629,547)	(10,518,602)	(1,155,798)	(241,110)	(17,101,059)	(18,497,967)	(1,150,176)	(85,756)	(17,298,578)	(18,534,510)
Net Income (Loss)	879,081	(467,328)	769,054	1,180,806	1,860,198	(344,048)	4,536,387	6,052,537	2,539,927	749,444	3,988,788	7,278,160	2,094,223	1,788,879	2,194,319	6,077,421
CASH FLOW STATEMENT																
Cash Flows From Operating Activities																
Operating Revenues	1,801,644	935,883	4,182,591	6,920,118	9,142,123	9,665,469	28,466,639	47,274,230	16,165,101	20,074,329	50,679,078	86,918,508	16,287,758	21,159,552	50,944,159	88,391,469
Operating Expenses (ex D&A)	(577,959)	(882,393)	(1,566,506)	(3,026,858)	(4,818,606)	(6,213,064)	(10,650,177)	(21,681,846)	(9,461,796)	(12,531,121)	(23,410,661)	(45,403,578)	(9,979,907)	(13,288,362)	(25,272,691)	(48,540,960)
Non-Cash Working Capital Changes	(442,770)	(525,026)	(1,106,219)	(2,074,015)	(529,934)	(1,011,425)	(4,311,112)	(5,852,472)	173,682	(358,127)	(619,164)	(803,609)	(417,694)	(0)	2,197,478	1,779,783
Net Cash Provided by (Used in) Operating Activities	780,914	(471,536)	1,509,866	1,819,245	3,793,583	2,440,980	13,505,350	19,739,912	6,876,987	7,185,081	26,649,253	40,711,321	5,890,157	7,871,190	27,868,945	41,630,292
Cash Flows From Financing Activities																
Capital Contributions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds New Borrowing	-	-	-	-	-	-	-	-	3,075,000	-	1,200,000	4,275,000	3,075,000	-	1,200,000	4,275,000
Interest Payments	(1,041)	(11,634)	-	(12,675)	(601,506)	(82,821)	(5,755,505)	(6,439,833)	(1,201,467)	(179,353)	(11,548,053)	(12,928,873)	(1,200,301)	(173,721)	(12,799,531)	(14,173,553)
Principal Payments	(7,971)	(46,916)	-	(54,887)	(109,091)	(326,414)	-	(435,505)	(1,942,027)	(552,300)	(2,660,831)	(5,155,158)	(1,925,189)	(562,081)	(2,660,831)	(5,148,101)
Net Cash Provided by (Used in) Financing Activities	(9,012)	(58,550)	-	(67,562)	(710,597)	(409,235)	(5,755,505)	(6,875,337)	(68,495)	(731,653)	(13,008,884)	(13,809,031)	(50,490)	(735,802)	(14,260,362)	(15,046,654)
Cash Flows from Capital and Related Activities																
Non-Operating Income (Expenses)	(102)	1,025	-	924	(35,855)	(114,824)	(643,325)	(794,004)	(35,718)	(115,850)	(1,286,655)	(1,438,223)	-	22	(1,286,650)	(1,286,628)
Capital Expenditures, net	(555,905)	(308,333)	(386,913)	(1,251,151)	(1,859,520)	(2,133,920)	(3,568,092)	(7,561,533)	(4,612,462)	(2,403,701)	(6,440,007)	(13,456,171)	(5,487,500)	(2,870,000)	(7,058,800)	(15,416,300)
Net Cash Provided By (Used In) Capital and Related Activities	(556,007)	(307,308)	(386,913)	(1,250,227)	(1,895,376)	(2,248,745)	(4,211,417)	(8,355,537)	(4,648,179)	(2,519,551)	(7,726,662)	(14,894,393)	(5,487,500)	(2,869,978)	(8,345,450)	(16,702,928)
Cash Flows From Investing Activities																
Investments Converting To Cash	-	-	-	-	990,000	2,167,000	-	3,157,000	742,682	4,599,000	-	5,341,682	-	-	-	-
Purchased Investments	-	-	-	-	(984,000)	(4,163,000)	-	(5,147,000)	(743,000)	(4,264,000)	-	(5,007,000)	-	-	-	-
Interest Income	7,675	10,124	68,896	86,695	32,391	42,564	128,661	203,617	49,796	67,440	62,209	179,445	50,125	87,943	176,419	314,487
Net Cash Provided By (Used In) Investing Activities	7,675	10,124	68,896	86,695	38,391	(1,953,436)	128,661	(1,786,383)	49,479	402,440	62,209	514,128	50,125	87,943	176,419	314,487
FUND NET CASH FLOWS	223,571	(827,270)	1,191,849	588,150	1,226,001	(2,170,435)	3,667,089	2,722,654	2,209,792	4,336,317	5,975,916	12,522,024	402,292	4,353,353	5,439,552	10,195,198
DEBT SERVICE RATIO																
Debt Service Ratio (Indenture Based)																
Total Operating Revenues	1,645,139	852,292	3,943,682	6,441,113	8,799,783	8,575,981	26,269,616	43,645,380	15,449,114	18,636,993	46,269,365	80,355,472	15,321,204	20,282,051	46,388,630	81,991,885
Total Operating Expenses (Cash Based)	(577,959)	(882,393)	(1,566,506)	(3,026,858)	(4,818,606)	(6,213,064)	(10,650,177)	(21,681,846)	(9,461,796)	(12,531,121)	(23,410,661)	(45,403,578)	(9,979,907)	(13,288,362)	(25,272,691)	(48,540,960)
Interest Income	7,675	10,124	68,896	86,695	32,391	42,564	128,661	203,617	49,796	67,440	62,209	179,445	50,125	87,943	176,419	314,487
Annual Lease Payment (City)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-Operating Revenues (Expenses)	156,404	84,616	238,909	479,929	306,484	974,664	2,197,023	3,478,171	680,270	1,321,486	4,409,713	6,411,469	966,554	877,523	4,555,529	6,399,606
Cash Available For Debt Service	1,231,258	64,639	2,684,981	3,980,878	4,320,053	3,380,145	17,945,123	25,645,321	6,717,384	7,494,798	27,330,626	41,542,808	6,357,976	7,959,156	25,847,886	40,165,018
Interest Paid	100,122	14,946	962,338	1,077,406	700,856	104,623	6,736,364	7,541,843	1,201,467	179,353	11,548,053	12,928,873	1,200,301	173,721	12,799,531	14,173,553
Debt Retirement (Principal Payments)	161,836	46,025	221,736	429,597	1,132,849	322,175	1,552,151	3,007,176	1,942,027	552,300	2,660,831	5,155,158	1,925,189	562,081	2,660,831	5,148,101
Total Debt Service	261,958	60,971	1,184,074	1,507,003	1,833,705	426,797	8,288,516	10,549,018	3,143,495	731,653	14,208,884	18,084,031	3,125,490	735,802	15,460,362	19,321,654
Debt Service Ratio	4.70	1.06	2.27	2.64	2.36	7.92	2.17	2.43	2.14	10.24	1.92	2.30	2.03	10.82	1.67	2.08

LEHIGH COUNTY AUTHORITY
FINANCIAL STATEMENTS - SUBURBAN WATER
For the Period Ended July 31, 2022

STATEMENTS OF ACTIVITIES	Suburban - Water														
	Month					Year To Date					Full Year				
	Actual	Q3 FC	Prior Year	FC Var	PY Var	Actual	Q3 FC	Prior Year	FC Var	PY Var	Q3 FC	Budget	Prior Year	Bud Var	PY Var
Operating Revenues:															
User Charges	1,645,139	1,663,860	1,330,808	(18,721)	314,331	8,799,783	8,818,540	7,137,645	(18,757)	1,662,139	15,449,114	15,321,204	12,433,466	127,910	3,015,648
Connection & System Charges	151,590	57,881	56,850	93,709	94,740	315,834	222,131	472,321	93,702	(156,487)	677,848	933,476	1,559,023	(255,628)	(881,175)
Other Miscellaneous Revenues	4,915	2,756	3,555	2,159	1,360	26,506	24,356	30,260	2,150	(3,754)	38,139	33,078	131,831	5,061	(93,692)
Total Operating Revenues	1,801,644	1,724,498	1,391,213	77,146	410,431	9,142,123	9,065,028	7,640,226	77,095	1,501,897	16,165,101	16,287,758	14,124,320	(122,657)	2,040,781
Operating Expenses:															
Personnel	170,782	218,842	224,928	48,060	54,146	1,826,574	1,874,642	1,772,411	48,068	(54,163)	3,542,771	3,135,717	3,168,152	(407,053)	(374,619)
Shared Services - General & Administrative	55,999	64,825	43,732	8,826	(12,268)	324,937	333,755	304,988	8,819	(19,949)	647,611	777,905	506,957	130,294	(140,654)
Utilities	32,866	43,410	38,735	10,543	5,868	307,146	317,700	256,695	10,553	(50,451)	500,644	520,914	423,326	20,270	(77,317)
Materials and Supplies	37,079	38,000	19,630	921	(17,449)	448,116	449,050	204,365	934	(243,750)	883,797	816,837	475,374	(66,960)	(408,423)
Miscellaneous Services	279,940	409,277	308,744	129,337	28,804	1,905,828	2,035,187	1,990,763	129,359	84,934	3,846,881	4,728,534	3,433,851	881,653	(413,030)
Treatment and Transportation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Depreciation and Amortization	251,752	251,750	217,141	(2)	(34,611)	1,756,927	1,756,920	1,519,987	(7)	(236,940)	3,007,580	3,063,453	3,350,988	55,872	343,407
Major Maintenance Expenses	1,292	500	(101)	(792)	(1,393)	6,006	5,220	3,017	(786)	(2,988)	-	-	-	-	-
Other Miscellaneous	-	-	(6,107)	-	(6,107)	-	-	-	-	-	40,092	-	80,020	(40,092)	39,928
Total Operating Expenses	829,711	1,026,604	846,701	196,892	16,990	6,575,533	6,772,474	6,052,227	196,941	(523,306)	12,469,376	13,043,359	11,438,668	573,983	(1,030,708)
Net Operating Profit	971,933	697,894	544,512	274,038	427,421	2,566,590	2,292,554	1,587,999	274,036	978,591	3,695,725	3,244,399	2,685,652	451,327	1,010,073
Non-Operating Income (Expense)															
Interest Income	7,675	4,179	4,104	3,496	3,571	32,391	28,899	28,621	3,492	3,771	49,796	50,125	47,412	(329)	2,384
Interest (Expense)	(100,425)	(94,563)	(45,208)	(5,863)	(55,217)	(702,929)	(697,063)	(746,364)	(5,866)	43,435	(1,169,877)	(1,200,301)	(1,026,223)	30,424	(143,654)
Other Miscellaneous	(102)	7	(142,162)	(109)	142,060	(35,855)	(35,753)	(148,023)	(102)	112,168	(35,718)	-	3,073,185	(35,718)	(3,108,902)
Net Non-Operating Income (Expense)	(92,852)	(90,376)	(183,266)	(2,475)	90,414	(706,393)	(703,916)	(865,766)	(2,476)	159,373	(1,155,798)	(1,150,176)	2,094,374	(5,622)	(3,250,172)
Net Income (Loss)	879,081	607,518	361,246	271,563	517,835	1,860,198	1,588,638	722,233	271,560	1,137,964	2,539,927	2,094,223	4,780,026	445,704	(2,240,099)
	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
CASH FLOW STATEMENT															
Cash Flows From Operating Activities															
Operating Revenues	1,801,644	1,724,498	1,391,213	77,146	410,431	9,142,123	9,065,028	7,640,226	77,095	1,501,897	16,165,101	16,287,758	14,124,320	(122,657)	2,040,781
Operating Expenses (ex D&A)	(577,959)	(774,854)	(629,560)	196,894	51,601	(4,818,606)	(5,015,554)	(4,532,240)	196,948	(286,367)	(9,461,796)	(9,979,907)	(8,087,680)	518,111	(1,374,116)
Non-Cash Working Capital Changes	(442,770)	(442,873)	(691,527)	103	248,756	(529,934)	(530,482)	(1,465,983)	548	936,049	173,682	(417,694)	(2,587,491)	591,376	2,761,173
Net Cash Provided by (Used in) Operating Activities	780,914	506,771	70,126	274,143	710,788	3,793,583	3,518,992	1,642,003	274,590	2,151,580	6,876,987	5,890,157	3,449,149	986,830	3,427,838
Cash Flows From Financing Activities															
Capital Contributions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds New Borrowing	-	-	21,679,902	-	(21,679,902)	-	-	21,679,902	-	(21,679,902)	3,075,000	3,075,000	21,679,902	-	(18,604,902)
Interest Payments	(1,041)	(1,166)	(139,182)	125	138,141	(601,506)	(602,483)	(838,890)	976	237,384	(1,201,467)	(1,200,301)	(1,344,261)	(1,166)	142,793
Principal Payments	(7,971)	(7,838)	(20,537,344)	(133)	20,529,372	(109,091)	(109,271)	(20,725,570)	180	20,616,479	(1,942,027)	(1,925,189)	(21,902,961)	(16,838)	19,960,933
Net Cash Provided by (Used in) Financing Activities	(9,012)	(9,005)	1,003,377	(8)	(1,012,389)	(710,597)	(711,754)	115,442	1,157	(826,040)	(68,495)	(50,490)	(1,567,319)	(18,005)	1,498,825
Cash Flows from Capital and Related Activities															
Non-Operating Income (Expenses)	(102)	7	(142,162)	(109)	142,060	(35,855)	(35,753)	(148,023)	(102)	112,168	(35,718)	-	(188,450)	(35,718)	152,733
Capital Expenditures, net	(555,905)	(555,500)	(310,114)	(405)	(245,792)	(1,859,520)	(2,122,109)	(1,499,801)	262,588	(359,719)	(4,612,462)	(5,487,500)	(4,667,888)	875,038	55,426
Net Cash Provided By (Used In) Capital and Related Activities	(556,007)	(555,493)	(452,276)	(514)	(103,731)	(1,895,376)	(2,157,862)	(1,647,824)	262,486	(247,552)	(4,648,179)	(5,487,500)	(4,856,338)	839,321	208,158
Cash Flows From Investing Activities															
Investments Converting To Cash	-	-	-	-	-	990,000	493,682	244,682	496,318	745,318	742,682	-	493,682	742,682	249,000
Purchased Investments	-	-	-	-	-	(984,000)	(494,000)	(245,000)	(490,000)	(739,000)	(743,000)	-	(494,000)	(743,000)	(249,000)
Interest Income	7,675	4,179	4,104	3,496	3,571	32,391	28,899	28,621	3,492	3,771	49,796	50,125	47,412	(329)	2,384
Net Cash Provided By (Used In) Investing Activities	7,675	4,179	4,104	3,496	3,571	38,391	28,582	28,303	9,809	10,088	49,479	50,125	47,095	(646)	2,384
FUND NET CASH FLOWS	223,571	(53,547)	625,332	277,117	(401,761)	1,226,001	677,958	137,924	548,043	1,088,077	2,209,792	402,292	(2,927,414)	1,807,500	5,137,205
	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
DEBT SERVICE RATIO															
Debt Service Ratio (Indenture Based)															
User Charges	1,645,139	1,663,860	1,330,808	(18,721)	314,331	8,799,783	8,818,540	7,137,645	(18,757)	1,662,139	15,449,114	15,321,204	12,433,466	127,910	3,015,648
Operating Expenses (Cash Based)	(577,959)	(774,854)	(629,560)	196,894	51,601	(4,818,606)	(5,015,554)	(4,532,240)	196,948	(286,367)	(9,461,796)	(9,979,907)	(8,087,680)	518,111	(1,374,116)
Interest Income	7,675	4,179	4,104	3,496	3,571	32,391	28,899	28,621	3,492	3,771	49,796	50,125	47,412	(329)	2,384
Annual Lease Payment (City)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-Operating Revenues (Expenses)	156,404	60,645	(81,757)	95,759	238,160	306,484	210,735	354,558	95,750	(48,074)	680,270	966,554	4,764,039	(286,284)	(4,083,769)
Cash Available For Debt Service	1,231,258	953,831	623,595	277,427	607,663	4,320,053	4,042,621	2,988,584	277,432	1,331,469	6,717,384	6,357,976	9,157,236	359,408	(2,439,853)
Interest Paid	100,122	100,122	112,022	-	(11,899)	700,856	700,856	784,152	-	(83,296)	1,201,467	1,200,301	1,344,261	1,166	(142,793)
Debt Retirement (Principal Payments)	161,836	160,432	18,588	1,403	143,247	1,132,849	1,132,849	130,118	-	1,002,732	1,942,027	1,925,189	223,059	16,838	1,718,969
Total Debt Service	261,958	260,555	130,610	1,403	131,348	1,833,705	1,833,705	914,270	-	919,436	3,143,495	3,125,490	1,567,319	18,005	1,576,175
Debt Service Ratio	4.70	3.66	4.77	1.04	(0.07)	2.36	2.20	3.27	0.15	(0.91)	2.14	2.03	5.84	0.10	(3.71)

LEHIGH COUNTY AUTHORITY
VARIANCE ANALYSIS - MONTH
For the Period Ended July 31, 2022

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	Q3 FC	FC Var	Comments	
1,645,139	1,663,860	(18,721)	Higher inspection & review fees along with higher tapping fees	
151,590	57,881	93,709		
4,915	2,756	2,159		
1,801,644	1,724,498	77,146	Higher system fees partially offset by slightly lower user charges	
170,782	218,842	48,060	Lower labor charged in	
55,999	64,825	8,826		
32,866	43,410	10,543		
37,079	38,000	921	Lower water purchases and lower maintenance services	
279,940	409,277	129,337		
-	-	-		
251,752	251,750	(2)		
1,292	500	(792)		
-	-	-		
829,711	1,026,604	196,892	Favorable variances across the board	
971,933	697,894	274,038	Higher operating revenues along with lower operating expenses	
7,675	4,179	3,496		
(100,425)	(94,563)	(5,863)		
(102)	7	(109)		
(92,852)	(90,376)	(2,475)		
879,081	607,518	271,563	Higher net operating income	
1,801,644	1,724,498	77,146		
(577,959)	(774,854)	196,894		
(442,770)	(442,873)	103		
780,914	506,771	274,143	Higher net operating income	
-	-	-		
-	-	-		
(1,041)	(1,166)	125		
(7,971)	(7,838)	(133)		
(9,012)	(9,005)	(8)		
(102)	7	(109)		
(555,905)	(555,500)	(405)		
(556,007)	(555,493)	(514)		
-	-	-		
-	-	-		
7,675	4,179	3,496		
7,675	4,179	3,496		
223,571	(53,547)	277,117	Higher cash from operations	

LEHIGH COUNTY AUTHORITY
FINANCIAL STATEMENTS - SUBURBAN WASTEWATER
For the Period Ended July 31, 2022

STATEMENTS OF ACTIVITIES	Suburban - Wastewater														
	Month					Year To Date					Full Year				
	Actual	Q3 FC	Prior Year	FC Var	PY Var	Actual	Q3 FC	Prior Year	FC Var	PY Var	Q3 FC	Budget	Prior Year	Bud Var	PY Var
Operating Revenues:															
User Charges	852,292	878,867	1,540,919	(26,575)	(688,627)	8,575,981	8,602,567	10,957,202	(26,586)	(2,381,221)	18,636,993	20,282,051	15,823,055	(1,645,058)	2,813,938
Connection & System Charges	83,576	113,713	111,587	(30,137)	(28,011)	1,089,338	1,119,463	553,114	(30,125)	536,224	1,436,072	875,254	757,041	560,818	679,032
Other Miscellaneous Revenues	15	187	126	(172)	(111)	150	327	1,946	(177)	(1,796)	1,264	2,247	45,691	(984)	(44,427)
Total Operating Revenues	935,883	992,767	1,652,631	(56,884)	(716,748)	9,665,469	9,722,357	11,512,261	(56,888)	(1,846,792)	20,074,329	21,159,552	16,625,786	(1,085,224)	3,448,543
Operating Expenses:															
Personnel	59,770	97,557	87,807	37,787	28,037	759,114	796,907	707,928	37,793	(51,186)	1,603,771	1,557,088	1,341,997	(46,683)	(261,775)
Shared Services - General & Administrative	21,435	19,169	17,074	(2,267)	(4,361)	134,970	132,709	121,730	(2,261)	(13,240)	271,431	230,022	211,387	(41,409)	(60,044)
Utilities	19,412	29,661	23,475	10,249	4,062	171,247	181,491	165,990	10,245	(5,257)	299,771	355,937	269,553	56,166	(30,218)
Materials and Supplies	17,104	41,379	14,251	24,275	(2,853)	160,408	184,689	84,687	24,281	(75,721)	261,321	496,550	233,440	235,229	(27,881)
Miscellaneous Services	509,846	567,030	620,609	57,184	110,763	3,698,911	3,756,110	3,613,810	57,199	(85,101)	6,517,180	6,804,359	6,407,539	287,179	(109,641)
Treatment and Transportation	250,422	256,403	332,377	5,981	81,955	1,267,969	1,273,943	2,051,594	5,973	783,625	3,553,692	3,844,405	3,899,503	290,713	345,811
Depreciation and Amortization	516,262	516,260	384,727	(2)	(131,535)	3,613,791	3,613,780	2,699,089	(11)	(920,702)	6,552,653	5,996,555	6,694,237	(556,099)	141,583
Major Maintenance Expenses	4,404	6,667	9,118	2,262	4,713	20,445	22,707	71,231	2,262	50,786	-	-	-	-	-
Other Miscellaneous	-	-	-	-	-	-	-	-	-	-	23,954	-	55,412	(23,954)	31,458
Total Operating Expenses	1,398,655	1,534,125	1,489,438	135,471	90,783	9,826,854	9,962,335	9,510,059	135,481	(316,795)	19,083,774	19,284,917	19,113,067	201,143	29,293
Net Operating Profit	(462,772)	(541,359)	163,194	78,587	(625,965)	(161,386)	(239,979)	2,002,202	78,593	(2,163,588)	990,554	1,874,636	(2,487,282)	(884,081)	3,477,836
Non-Operating Income (Expense)															
Interest Income	10,124	7,000	6,325	3,124	3,799	42,564	39,440	54,617	3,124	(12,053)	67,440	87,943	80,219	(20,503)	(12,779)
Interest (Expense)	(15,705)	(13,000)	(15,657)	(2,705)	(49)	(110,403)	(107,700)	(109,306)	(2,703)	(1,096)	(192,700)	(173,721)	(213,026)	(18,979)	20,326
Other Miscellaneous	1,025	-	(5,005)	1,025	6,030	(114,824)	(115,850)	(35,412)	1,026	(79,412)	(115,850)	22	367,102	(115,872)	(482,952)
Net Non-Operating Income (Expense)	(4,556)	(6,000)	(14,337)	1,444	9,780	(182,663)	(184,110)	(90,101)	1,447	(92,561)	(241,110)	(85,756)	234,295	(155,354)	(475,405)
Net Income (Loss)	(467,328)	(547,359)	148,857	80,030	(616,185)	(344,048)	(424,089)	1,912,101	80,040	(2,256,149)	749,444	1,788,879	(2,252,986)	(1,039,435)	3,002,431
	OK	OK	OK			OK	OK	OK			OK	OK	OK		
CASH FLOW STATEMENT															
Cash Flows From Operating Activities															
Operating Revenues	935,883	992,767	1,652,631	(56,884)	(716,748)	9,665,469	9,722,357	11,512,261	(56,888)	(1,846,792)	20,074,329	21,159,552	16,625,786	(1,085,224)	3,448,543
Operating Expenses (ex D&A)	(882,393)	(1,017,865)	(1,104,711)	135,472	222,318	(6,213,064)	(6,348,555)	(6,816,970)	135,492	603,906	(12,531,121)	(13,288,362)	(12,418,831)	757,241	(112,290)
Non-Cash Working Capital Changes	(525,026)	(525,035)	(556,549)	9	31,523	(1,011,425)	(1,010,786)	(1,794,517)	(639)	783,092	(358,127)	(0)	457,668	(358,127)	(815,795)
Net Cash Provided by (Used in) Operating Activities	(471,536)	(550,133)	(8,628)	78,598	(462,908)	2,440,980	2,363,015	2,900,775	77,965	(459,794)	7,185,081	7,871,190	4,664,623	(686,109)	2,520,458
Cash Flows From Financing Activities															
Capital Contributions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds New Borrowing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Payments	(11,634)	(12,723)	(12,723)	1,089	1,089	(82,821)	(96,397)	(97,747)	13,576	14,925	(179,353)	(173,721)	(160,037)	(5,632)	(19,316)
Principal Payments	(46,916)	(45,786)	(45,786)	(1,130)	(1,130)	(326,414)	(320,950)	(319,042)	(5,464)	(7,372)	(552,300)	(562,081)	(549,370)	9,781	(2,930)
Net Cash Provided by (Used in) Financing Activities	(58,550)	(58,509)	(58,509)	(41)	(41)	(409,235)	(417,347)	(416,789)	8,112	7,554	(731,653)	(735,802)	(709,407)	4,149	(22,246)
Cash Flows from Capital and Related Activities															
Non-Operating Income (Expenses)	1,025	-	(5,005)	1,025	6,030	(114,824)	(115,850)	(35,412)	1,026	(79,412)	(115,850)	22	(55,198)	(115,872)	(60,652)
Capital Expenditures, net	(308,333)	(308,367)	(73,068)	34	(235,264)	(2,133,920)	(1,989,455)	(1,998,739)	(144,466)	(135,182)	(2,403,701)	(2,870,000)	(4,250,286)	466,299	1,846,584
Net Cash Provided By (Used In) Capital and Related Activities	(307,308)	(308,367)	(78,073)	1,059	(229,235)	(2,248,745)	(2,105,305)	(2,034,151)	(143,440)	(214,594)	(2,519,551)	(2,869,978)	(4,305,484)	350,426	1,785,932
Cash Flows From Investing Activities															
Investments Converting To Cash	-	-	245,000	-	(245,000)	2,167,000	2,170,000	1,729,000	(3,000)	438,000	4,599,000	-	2,851,000	4,599,000	1,748,000
Purchased Investments	-	-	-	-	-	(4,163,000)	(4,256,000)	(2,472,000)	93,000	(1,691,000)	(4,264,000)	-	(3,714,000)	(4,264,000)	(550,000)
Interest Income	10,124	7,000	6,325	3,124	3,799	42,564	39,440	54,617	3,124	(12,053)	67,440	87,943	80,219	(20,503)	(12,779)
Net Cash Provided By (Used In) Investing Activities	10,124	7,000	251,325	3,124	(241,201)	(1,953,436)	(2,046,560)	(688,383)	93,124	(1,265,053)	402,440	87,943	(782,781)	314,497	1,185,221
FUND NET CASH FLOWS	(827,270)	(910,009)	106,115	82,739	(933,385)	(2,170,435)	(2,206,196)	(238,548)	35,761	(1,931,888)	4,336,317	4,353,353	(1,133,048)	(17,037)	5,469,365
	OK	OK	OK			OK	OK	OK			OK	OK	OK		
DEBT SERVICE RATIO															
Debt Service Ratio (Indenture Based)															
User Charges	852,292	878,867	1,540,919	(26,575)	(688,627)	8,575,981	8,602,567	10,957,202	(26,586)	(2,381,221)	18,636,993	20,282,051	15,823,055	(1,645,058)	2,813,938
Operating Expenses (Cash Based)	(882,393)	(1,017,865)	(1,104,711)	135,472	222,318	(6,213,064)	(6,348,555)	(6,816,970)	135,492	603,906	(12,531,121)	(13,288,362)	(12,418,831)	757,241	(112,290)
Interest Income	10,124	7,000	6,325	3,124	3,799	42,564	39,440	54,617	3,124	(12,053)	67,440	87,943	80,219	(20,503)	(12,779)
Annual Lease Payment (City)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-Operating Revenues (Expenses)	84,616	113,900	106,708	(29,284)	(22,092)	974,664	1,003,940	519,647	(29,277)	455,017	1,321,486	877,523	1,169,833	443,962	151,653
Cash Available For Debt Service	64,639	(18,099)	549,241	82,737	(484,602)	3,380,145	3,297,391	4,714,496	82,754	(1,334,351)	7,494,798	7,959,156	4,654,276	(464,358)	2,840,522
Interest Paid	14,946	14,946	13,336	-	1,610	104,623	104,623	93,355	-	11,268	179,353	173,721	160,037	5,632	19,316
Debt Retirement (Principal Payments)	46,025	46,840	45,781	(815)	244	322,175	322,175	320,466	-	1,709	552,300	562,081	549,370	(9,781)	2,930
Total Debt Service	60,971	61,786	59,117	(815)	1,854	426,797	426,797	413,821	-	12,977	731,653	735,802	709,407	(4,149)	22,246
Debt Service Ratio	1.06	(0.29)	9.29	1.35	(8.23)	7.92	7.73	11.39	0.19	(3.47)	10.24	10.82	6.56	(0.57)	3.68

LEHIGH COUNTY AUTHORITY
VARIANCE ANALYSIS - MONTH
For the Period Ended July 31, 2022

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	Q3 FC	FC Var	Comments
852,292	878,867	(26,575)	Lower tapping fees
83,576	113,713	(30,137)	
15	187	(172)	
935,883	992,767	(56,884)	Lower user charges and lower tapping fees
59,770	97,557	37,787	
21,435	19,169	(2,267)	
19,412	29,661	10,249	
17,104	41,379	24,275	
509,846	567,030	57,184	
250,422	256,403	5,981	
516,262	516,260	(2)	
4,404	6,667	2,262	
-	-	-	
1,398,655	1,534,125	135,471	Favorable variances across the board except for slightly unfavorable G&A
(462,772)	(541,359)	78,587	Lower operating expenses more than compensated for lower operating revenues
10,124	7,000	3,124	
(15,705)	(13,000)	(2,705)	
1,025	-	1,025	
(4,556)	(6,000)	1,444	
(467,328)	(547,359)	80,030	Higher net operating profit
935,883	992,767	(56,884)	
(882,393)	(1,017,865)	135,472	
(525,026)	(525,035)	9	
(471,536)	(550,133)	78,598	Higher net operating profit
-	-	-	
-	-	-	
(11,634)	(12,723)	1,089	
(46,916)	(45,786)	(1,130)	
(58,550)	(58,509)	(41)	
1,025	-	1,025	
(308,333)	(308,367)	34	
(307,308)	(308,367)	1,059	
-	-	-	
-	-	-	
10,124	7,000	3,124	
10,124	7,000	3,124	
(827,270)	(910,009)	82,739	Higher cash from operations

LEHIGH COUNTY AUTHORITY
FINANCIAL STATEMENTS - CITY DIVISION
For the Period Ended July 31, 2022

STATEMENTS OF ACTIVITIES	City Division														
	Month					Year To Date					Full Year				
	Actual	Q3 FC	Prior Year	FC Var	Jan-00	Actual	Q3 FC	Prior Year	FC Var	PY Var	Q3 FC	Budget	Prior Year	Bud Var	PY Var
Operating Revenues:															
User Charges	3,943,682	3,962,775	3,717,210	(19,093)	226,472	26,269,616	26,288,695	24,007,376	(19,079)	2,262,240	46,269,365	46,388,630	42,276,435	(119,265)	3,992,930
Connection & System Charges	235,054	176,004	292,686	59,049	(57,632)	2,163,213	2,104,184	1,653,309	59,028	509,904	4,346,006	4,488,054	3,511,291	(142,048)	834,715
Other Miscellaneous Revenues	3,855	5,623	5,024	(1,768)	(1,169)	33,810	35,593	48,359	(1,783)	(14,549)	63,708	67,475	113,357	(3,768)	(49,650)
Total Operating Revenues	4,182,591	4,144,403	4,014,920	38,188	167,671	28,466,639	28,428,473	25,709,044	38,166	2,757,594	50,679,078	50,944,159	45,901,083	(265,080)	4,777,995
Operating Expenses:															
Personnel	884,482	849,494	923,539	(34,988)	39,057	6,489,167	6,454,194	6,119,449	(34,973)	(369,718)	11,739,043	12,623,714	10,681,433	884,670	(1,057,610)
Shared Services - General & Administrative	155,790	156,031	138,467	241	(17,323)	941,228	941,481	898,109	252	(43,119)	1,834,222	1,872,369	1,529,986	38,147	(304,235)
Utilities	129,745	169,812	130,802	40,067	1,057	1,016,540	1,056,602	1,058,348	40,062	41,808	1,760,155	2,037,742	1,705,824	277,587	(54,331)
Materials and Supplies	177,512	193,482	79,510	15,970	(98,002)	1,203,645	1,219,612	768,532	15,967	(435,112)	2,125,108	2,334,092	1,486,676	208,984	(638,432)
Miscellaneous Services	191,040	161,002	86,000	(30,038)	(105,040)	808,735	778,672	648,341	(30,063)	(160,393)	1,732,133	2,184,774	1,513,870	452,641	(218,264)
Treatment and Transportation	-	-	-	-	-	5,625	5,620	5,813	(5)	188	13,800	13,800	12,480	-	(1,320)
Depreciation and Amortization	521,492	514,881	491,154	(6,611)	(30,338)	3,650,528	3,643,911	3,438,078	(6,617)	(212,450)	6,178,570	6,178,570	4,348,808	0	(1,829,761)
Major Maintenance Expenses	27,936	30,000	295,059	2,064	267,124	180,037	182,090	534,168	2,053	354,131	-	4,206,200	3,679,342	4,206,200	3,679,342
Other Miscellaneous	-	-	-	-	-	5,200	-	-	(5,200)	(5,200)	4,206,200	-	7,540	(4,206,200)	(4,198,660)
Total Operating Expenses	2,087,998	2,074,702	2,144,532	(13,296)	56,534	14,300,704	14,282,182	13,470,839	(18,523)	(829,866)	29,589,231	31,451,261	24,965,960	1,862,031	(4,623,271)
Net Operating Profit	2,094,593	2,069,701	1,870,388	24,892	224,205	14,165,934	14,146,291	12,238,206	19,643	1,927,729	21,089,847	19,492,897	20,935,123	1,596,950	154,725
Non-Operating Income (Expense)															
Interest Income	68,896	407	428	68,489	68,467	128,661	60,177	3,552	68,485	125,109	62,209	176,419	5,374	(114,210)	56,836
Interest (Expense)	(1,394,435)	(1,456,250)	(1,382,735)	61,815	(11,700)	(9,758,208)	(9,820,020)	(9,679,145)	61,812	(79,063)	(17,163,269)	(17,474,997)	(16,508,725)	311,729	(654,543)
Other Miscellaneous	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net Non-Operating Income (Expense)	(1,325,539)	(1,455,843)	(1,382,307)	130,304	56,768	(9,629,547)	(9,759,843)	(9,675,593)	130,296	46,046	(17,101,059)	(17,298,578)	(16,503,352)	197,519	(597,708)
Net Income (Loss)	769,054	613,858	488,081	155,196	280,972	4,536,387	4,386,448	2,562,613	149,939	1,973,774	3,988,788	2,194,319	4,431,771	1,794,469	(442,983)
	OK	OK	OK			OK	OK	OK			OK	OK	OK		
CASH FLOW STATEMENT															
Cash Flows From Operating Activities															
Operating Revenues	4,182,591	4,144,403	4,014,920	38,188	167,671	28,466,639	28,428,473	25,709,044	38,166	2,757,594	50,679,078	50,944,159	45,901,083	(265,080)	4,777,995
Operating Expenses (ex D&A)	(1,566,506)	(1,559,821)	(1,653,378)	(6,685)	86,872	(10,650,177)	(10,638,271)	(10,032,761)	(11,906)	(617,416)	(23,410,661)	(25,272,691)	(20,617,152)	1,862,030	(2,793,510)
Non-Cash Working Capital Changes	(1,106,219)	(1,106,563)	(1,055,421)	344	(50,798)	(4,311,112)	(4,311,672)	532,358	560	(4,843,470)	(619,164)	2,197,478	2,989,796	(2,816,642)	(3,608,960)
Net Cash Provided by (Used in) Operating Activities	1,509,866	1,478,019	1,306,121	31,847	203,745	13,505,350	13,478,530	16,208,642	26,820	(2,703,292)	26,649,253	27,868,945	28,273,727	(1,219,692)	(1,624,474)
Cash Flows From Financing Activities															
Capital Contributions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds New Borrowing	-	-	-	-	-	-	-	-	-	-	1,200,000	1,200,000	-	-	1,200,000
Interest Payments	-	-	-	-	-	(5,755,505)	(5,755,510)	(5,772,543)	5	17,038	(11,548,053)	(12,799,531)	(11,600,444)	1,251,478	52,391
Principal Payments	-	-	-	-	-	-	-	-	-	-	(2,660,831)	(2,660,831)	(2,514,642)	-	(146,189)
Net Cash Provided by (Used in) Financing Activities	-	-	-	-	-	(5,755,505)	(5,755,510)	(5,772,543)	5	17,038	(13,008,884)	(14,260,362)	(14,115,086)	1,251,478	1,106,202
Cash Flows from Capital and Related Activities															
Non-Operating Income (Expenses)	-	-	-	-	-	(643,325)	(643,330)	(621,762)	5	(21,563)	(1,286,655)	(1,286,650)	(1,243,524)	(5)	(43,131)
Capital Expenditures, net	(386,913)	(344,449)	(311,977)	(42,464)	(74,936)	(3,568,092)	(3,525,629)	(2,844,077)	(42,463)	(724,015)	(6,440,007)	(7,058,800)	(3,825,566)	618,793	(2,614,442)
Net Cash Provided By (Used In) Capital and Related Activities	(386,913)	(344,449)	(311,977)	(42,464)	(74,936)	(4,211,417)	(4,168,959)	(3,465,839)	(42,458)	(745,578)	(7,726,662)	(8,345,450)	(5,069,090)	618,788	(2,657,573)
Cash Flows From Investing Activities															
Investments Converting To Cash	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Purchased Investments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Income	68,896	407	428	68,489	68,467	128,661	60,177	3,552	68,485	125,109	62,209	176,419	5,374	(114,210)	56,836
Net Cash Provided By (Used In) Investing Activities	68,896	407	428	68,489	68,467	128,661	60,177	3,552	68,485	125,109	62,209	176,419	5,374	(114,210)	56,836
FUND NET CASH FLOWS	1,191,849	1,133,977	994,572	57,872	197,277	3,667,089	3,614,238	6,973,812	52,851	(3,306,723)	5,975,916	5,439,552	9,094,925	536,364	(3,119,009)
	ok	ok	ok			ok	ok	ok			OK	OK	OK		
DEBT SERVICE RATIO															
Debt Service Ratio (Indenture Based)															
User Charges	3,943,682	3,962,775	3,717,210	(19,093)	226,472	26,269,616	26,288,695	24,007,376	(19,079)	2,262,240	46,269,365	46,388,630	42,276,435	(119,265)	3,992,930
Operating Expenses (Cash Based)	(1,566,506)	(1,559,821)	(1,653,378)	(6,685)	86,872	(10,650,177)	(10,638,271)	(10,032,761)	(11,906)	(617,416)	(23,410,661)	(25,272,691)	(20,617,152)	1,862,030	(2,793,510)
Interest Income	68,896	407	428	68,489	68,467	128,661	60,177	3,552	68,485	125,109	62,209	176,419	5,374	(114,210)	56,836
Annual Lease Payment (City)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-Operating Revenues (Expenses)	238,909	181,627	297,710	57,281	(58,801)	2,197,023	2,139,777	1,701,668	57,245	495,354	4,409,713	4,555,529	3,624,648	(145,815)	785,065
Cash Available For Debt Service	2,684,981	2,584,988	2,361,970	99,992	323,010	17,945,123	17,850,378	15,679,836	94,745	2,265,287	27,330,626	25,847,886	25,289,305	1,482,740	2,041,321
Interest Paid	962,338	962,338	966,704	-	(4,366)	6,736,364	6,736,364	6,766,926	-	(30,562)	11,548,053	12,799,531	11,600,444	(1,251,478)	(52,391)
Debt Retirement (Principal Payments)	221,736	221,736	209,554	-	12,182	1,552,151	1,552,151	1,466,875	-	85,277	2,660,831	2,660,831	2,514,642	-	146,189
Total Debt Service	1,184,074	1,184,074	1,176,257	-	7,816	8,288,516	8,288,516	8,233,800	-	54,715	14,208,884	15,460,362	14,115,086	(1,251,478)	93,798
Debt Service Ratio	2.27	2.18	2.01	0.08	0.26	2.17	2.15	1.90	0.01	0.26	1.92	1.67	1.79	0.25	0.13

LEHIGH COUNTY AUTHORITY
VARIANCE ANALYSIS - MONTH
For the Period Ended July 31, 2022

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	Q3 FC	FC Var	Comments
3,943,682	3,962,775	(19,093)	
235,054	176,004	59,049	
3,855	5,623	(1,768)	
4,182,591	4,144,403	38,188	Higher tapping fees
884,482	849,494	(34,988)	
155,790	156,031	241	
129,745	169,812	40,067	
177,512	193,482	15,970	
191,040	161,002	(30,038)	
-	-	-	
521,492	514,881	(6,611)	
27,936	30,000	2,064	
-	-	-	
2,087,998	2,074,702	(13,296)	
2,094,593	2,069,701	24,892	Higher operating revenues offset partially by slightly higher operating expenses
68,896	407	68,489	
(1,394,435)	(1,456,250)	61,815	
-	-	-	
(1,325,539)	(1,455,843)	130,304	
769,054	613,858	155,196	Higher net operating income aided by higher interest income and lower interest expense

4,182,591	4,144,403	38,188	
(1,566,506)	(1,559,821)	(6,685)	
(1,106,219)	(1,106,563)	344	
1,509,866	1,478,019	31,847	Higher net operating income
-	-	-	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
(386,913)	(344,449)	(42,464)	
(386,913)	(344,449)	(42,464)	Higher capex
-	-	-	
-	-	-	
68,896	407	68,489	
68,896	407	68,489	Higher interest income
1,191,849	1,133,977	57,872	Higher cash from operations and higher interest income partially offset by higher capex

LEHIGH COUNTY AUTHORITY
CASH & INVESTMENT SUMMARY
For the Period Ended July 31, 2022

	Suburban Water				Suburban Wastewater				City Division				Total			
	7/31/2022 Actual	2022 Forecast	2022 Budget	2021 Actual	7/31/2022 Actual	2022 Forecast	2022 Budget	2021 Actual	7/31/2022 Actual	2022 Forecast	2022 Budget	2021 Actual	7/31/2022 Actual	2022 Forecast	2022 Budget	2021 Actual
Cash																
Operating																
Unrestricted	5,573,070	6,558,228	4,277,520	4,348,472	(925,443)	10,734,684	8,147,829	442,983	5,646,749	20,231,476	14,389,739	6,779,585	9,983,854	37,524,389	26,815,088	11,571,041
Restricted	-	-	-	-	-	428	272	-	19,258,567	28,841,509	18,916,191	25,794,847	19,258,567	28,841,937	18,916,463	25,794,847
Total Operating	5,573,070	6,558,228	4,277,520	4,348,472	(925,443)	10,735,113	8,148,101	442,983	24,905,316	49,072,985	33,305,930	32,574,433	29,242,421	66,366,326	45,731,551	37,365,888
Capital																
Unrestricted	320,103	319,727	2,042,457	319,718	5,153,356	-	7,672,019	5,955,385	11,032,921	28,841,509	169,980	3,022,601	16,506,381	29,161,236	9,884,456	9,297,704
Restricted	-	-	-	-	338,380	337,932	337,932	338,360	7,504,773	7,504,773	7,500,000	7,500,035	7,843,153	7,842,705	7,837,932	7,838,396
Total Capital	320,103	319,727	2,042,457	319,718	5,491,736	337,932	8,009,951	6,293,745	18,537,695	36,346,282	7,669,980	10,522,636	24,349,534	37,003,941	17,722,388	17,136,099
Other Restricted																
Debt Reserves	1,649,587	1,648,596	1,858,493	1,648,569	-	-	-	-	30,814,544	(8,852,886)	28,976,677	27,493,396	32,464,130	(7,204,290)	30,835,170	29,141,965
Escrow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Other Restricted	1,649,587	1,648,596	1,858,493	1,648,569	-	-	-	-	30,814,544	(8,852,886)	28,976,677	27,493,396	32,464,130	(7,204,290)	30,835,170	29,141,965
Total Cash	7,542,760	8,526,551	8,178,470	6,316,759	4,566,293	11,073,045	16,158,052	6,736,728	74,257,554	76,566,381	69,952,587	70,590,465	86,056,086	96,165,977	94,289,109	83,643,953
Investments																
Operating																
Unrestricted	1,938,584	1,474,940	1,497,825	1,974,940	8,863,922	6,977,548	6,387,746	6,977,548	-	-	-	-	10,802,507	8,452,487	7,885,571	8,952,487
Restricted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Operating	1,938,584	1,474,940	1,497,825	1,974,940	8,863,922	6,977,548	6,387,746	6,977,548	-	-	-	-	10,802,507	8,452,487	7,885,571	8,952,487
Capital																
Unrestricted	1,002,629	1,000,184	1,000,000	1,000,184	-	-	-	-	-	-	-	-	1,002,629	1,000,184	1,000,000	1,000,184
Restricted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Capital	1,002,629	1,000,184	1,000,000	1,000,184	-	-	-	-	-	-	-	-	1,002,629	1,000,184	1,000,000	1,000,184
Other Restricted																
Debt Reserves	-	-	244,924	-	-	-	-	-	-	-	-	-	-	-	244,924	-
Escrow	217,704	295,372	4,210,752	295,372	-	-	-	-	-	-	-	-	217,704	295,372	4,210,752	295,372
Total Other Restricted	217,704	295,372	4,455,676	295,372	-	-	-	-	-	-	-	-	217,704	295,372	4,455,676	295,372
Total Investments	3,158,918	2,770,496	6,953,501	3,270,496	8,863,922	6,977,548	6,387,746	6,977,548	-	-	-	-	12,022,840	9,748,043	13,341,247	10,248,043
Total Cash and Investments	10,701,678	11,297,047	15,131,971	9,587,255	13,430,215	18,050,592	22,545,798	13,714,276	74,257,554	76,566,381	69,952,587	70,590,465	98,078,926	105,914,020	107,630,356	93,891,996
Summary																
Cash																
Unrestricted	5,893,174	6,877,955	6,319,977	4,668,190	4,227,913	10,734,684	15,819,848	6,398,368	16,679,670	49,072,985	14,559,719	9,802,186	26,490,235	66,685,625	36,699,544	20,868,744
Restricted	1,649,587	1,648,596	1,858,493	1,648,569	338,380	338,360	338,204	338,360	57,577,885	27,493,396	55,392,868	60,788,279	59,565,851	29,480,352	57,589,565	62,775,208
Total Cash	7,542,760	8,526,551	8,178,470	6,316,759	4,566,293	11,073,045	16,158,052	6,736,728	74,257,554	76,566,381	69,952,587	70,590,465	86,056,086	96,165,977	94,289,109	83,643,953
Investments																
Unrestricted	2,941,214	2,475,123	2,497,825	2,975,123	8,863,922	6,977,548	6,387,746	6,977,548	-	-	-	-	11,805,136	9,452,671	8,885,571	9,952,671
Restricted	217,704	295,372	4,455,676	295,372	-	-	-	-	-	-	-	-	217,704	295,372	4,455,676	295,372
Total Investments	3,158,918	2,770,496	6,953,501	3,270,496	8,863,922	6,977,548	6,387,746	6,977,548	-	-	-	-	12,022,840	9,748,043	13,341,247	10,248,043
Total Cash and Investments	10,701,678	11,297,047	15,131,971	9,587,255	13,430,215	18,050,592	22,545,798	13,714,276	74,257,554	76,566,381	69,952,587	70,590,465	98,078,926	105,914,020	107,630,356	93,891,996

CERTIFICATES OF DEPOSIT

July 2022

Fund	Bank	Location	Gross Amount	Date of Purchase	Date Due	Net Rate %
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NO INVESTING ACTIVITY FOR THE MONTH

DEVELOPMENT ACTIVITY

Water system construction is occurring in the following developments:

5420 Crackersport Road, 1 commercial lot, UMT
8323/8449 Congdon Hill Drive, 2 industrial lots with warehouses, LMT
Estates at Maple Ridge, Water main extension-UMiLT
Fields at Indian Creek, Phases 4 & 5, 86 residential units (sfd), water and sewer, UMiLT & Emmaus
Kohler Tract, 123 residential lots (sfa), water and sewer, UMiLT
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
Sauerkraut Lane Extension, Roadway & water line extension, LMT
West Hills Business Center Lot H, 1 commercial lot, WeisT

Water system plans are being reviewed for the following developments:

749 Route 100, 1 industrial lot with warehouse, UMT
3369 Rt 100 Neighborhood Hospital & Medical Offices, 1 commercial lot, LMT
3400 Brookside Road, Indian Creek- 26 Single family homes-Main extension, LMT
3510 Macungie Road 22 Single family homes-LMT
5329-5347-5357 Hamilton Blvd., 1 commercial lot, LMT
7034 Ambassador Drive -Warehouse, UMT
ABE Doors & Windows Redevelopment, 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), UMiLT
Fallbrooke Residential Subdivision, 90 sf residential units, UMT
Fields at Brookside, water main relocation, LMT
Grant Street Townes, 18 Townhouse, WT
Green Hills Commerce Center III, 1 commercial lot, UMT
Guardian Self-Storage, 1 commercial lot, LMT
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
Parkland Crossing (formerly 1224 Weilers Rd Twins), 144 townhouse 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
Sheetz, Cetronia Road, 1 commercial lot, UMT
Spring Creek Properties, Lot 12, 1 lot, warehouse, LMT
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
Woodmont Valley 2, 129 apartment units (former Allen Organ Co.) LMT-New

Sewage Facilities Planning Modules Reviewed in Prior Month:

1001 Glenlivet Drive Warehouse, UMT, 1,050 gpd.
2430 Coolidge Street, SWT, 223 gpd.
Woodmont Valley II, LMT, 27,822 gpd.
1670 Church Road, SWT, 220 gpd.

Presented: August 22, 2022

Critical Activities	System	Description	Jul-22	2022 Totals	2021 Totals	Permit
			Daily Avg (MGD)	Daily Avg (MGD)	Daily Avg (MGD)	Daily Max (MGD)
Water Production	Allentown	Total	23.94	22.34	22.00	39.0
		Schantz Spring	6.98	7.14	7.29	9.0
		Crystal Spring	3.90	3.87	3.75	4.0
		Little Lehigh Creek	13.00	11.33	10.84	30.0
		Lehigh River	0.06	0.03	0.11	28.0
	Central Lehigh	Total	13.14	11.47	10.98	19.04 MGD Avg
		Feed from Allentown	7.49	7.15	7.29	7.0 MGD Avg 10.5 MGD Max
		Well Production (CLD)	5.65	4.32	3.69	8.54 MGD Avg
		Sum of all (12) other Suburban Water Systems	0.15	0.13	0.13	1.71 Sum of all wells
Wastewater Treatment		Kline's Island	31.13	33.61	32.27	40.0
		Pretreatment Plant	5.12	5.23	5.17	5.75 (design capacity)
		Sum of all (5) other Suburban WW Systems	0.17	0.20	0.21	0.36
			Jul-22	2022 Totals	2021 Totals	2020 Totals
Precipitation Totals (inches)			2.38	27.9	44.67	60.66
Compliance Reports Submitted to Allentown			29	181	280	278
Notices of Violation (NOVs)		(Allentown + Suburban)	1	2	3	1
Sanitary Sewer Overflows (SSOs)/Bypasses		(Allentown + Suburban)	0	13	26	37
Main Breaks Repaired		Allentown	2	17	20	20
		Suburban	0	7	14	12
Customer Service Phone Inquiries		(Allentown + Suburban)	855	6,107	15,857	22,992
Water Shutoffs for Non-Payment		(Allentown + Suburban)	149	1,119	1,773	1,956
Injury Accidents		(Allentown + Suburban)	1	3	8	10
Emergency Declarations		Allentown	0	(2) @ \$213,993	0	(2)@ \$152,053
		Suburban	0	(1) @ \$800,000	(1) @ \$48,000	(1) @ \$19,335
Significant Repairs/Upgrades:						
The newly constructed Applewood Emergency Interconnection was placed online 7/14. The purpose of the interconnection is to supplement water demand while Reservoir 1 is offline for repairs.						
Description of NOVs and/or SSOs:						
A NOV was issued by the PA DEP in response to the SSO that occurred at the Pretreatment Plant on 6/3/2022.						
Other Highlights:						

July 27, 2022

NOTICE OF VIOLATION

Delivered via email

Lehigh County Authority
PO Box 3348, 1053 Spruce Road
Allentown, PA 18106-9408

Attention: Mr. Andrew Moore, Director of Plant Operations

RE: Industrial Waste
Lehigh County Pretreatment Plant
NPDES Permit No. PAS902202
Upper Macungie Township, Lehigh County

Dear Mr. Moore:

On June 2, 2022 the Department of Environmental Protection (“Department”) received a call from Diana Heimbach, Jacobs Project Manager, Lehigh County Pretreatment Plant, notifying the Department that an overflow occurred at the Lehigh County Pretreatment Plant’s bar screen room. The overflow occurred on June 2, 2022 due to a build-up of rags in the bar screen channel, causing an estimated 300 gallons of raw sewage to overflow to the nearby roadway, ground, and to stormwater Outfall #3.

On June 6, 2022, the Department received a written report citing the incident, which noted due to the rain at the time of the overflow, there was minimal clean-up at the stormwater Outfall #3. The clean-up included rinsing the outfall box with potable water several times and disposing of the wastewater properly.

The above-described discharge is not authorized by NPDES Permit No. PAS902202, and, therefore, said discharge is a violation of Section 201 of the Clean Streams Law of Pennsylvania.

The Department sent Lehigh County Authority a previous Notice of Violation (NOV) on March 7, 2022 for similar violations.

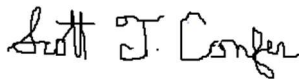
Please be advised that the unpermitted discharge described above and the failure to comply with the terms and conditions of your permit are violations of Lehigh County Authority’s NPDES Permit and the Clean Streams Law of Pennsylvania, Act of June 22, 1937, P.L. 1987, as amended, 35 P.S. Section 691.1 et seq. (“The Clean Streams Law”) and subjects Lehigh County Authority to appropriate enforcement action including, but not limited to, civil penalty assessment.

The Department requests that Lehigh County Authority respond in writing to this notice within 15 days of its receipt. Said response should indicate the cause of the above-described non-compliance and the steps that will be or have been taken, in order to ensure future compliance. As part of said response, the Department requests that Lehigh County Authority addend the Compliance Plan submitted on April 29, 2022 in response to the March 7, 2022 NOV to include the June 2, 2022 incident.

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

If you have any questions concerning this correspondence, you may contact me at 610-861-2135.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott T. Confer". The signature is written in a cursive, slightly stylized font.

Scott T. Confer
Water Quality Specialist
Clean Water Program

cc: Upper Macungie Township



1053 SPRUCE ROAD * P.O. BOX 3348 * ALLENTOWN, PA 18106-0348
610-398-2503 * FAX 610-398-8413 * www.lehighcountyauthority.org
email: AndrewMoore@lehighcountyauthority.org

August 9, 2022

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

Re: Industrial Waste
Lehigh County Pretreatment Plant
NPDES Permit No. PAS902202
Upper Macungie Township, Lehigh County

Dear Mr. Confer:

The Lehigh County Authority (LCA) is in receipt of the Notice of Violation electronically delivered on July 27, 2022. This letter serves as the required response to the permit violation that took place on June 2, 2022.

The Pretreatment Plant (PTP) is a pure oxygen activated sludge facility owned by LCA and operated by Jacobs. The facility accepts piped in waste from surrounding municipalities and operates a hauled waste program. Treated wastewater is discharged into a LCA owned interceptor where it is combined with other untreated waste in the conveyance system. The combined wastewater is ultimately treated at LCA's Kline's Island Wastewater Treatment Plant and discharged into the Lehigh River. The facility does not hold a National Pollutant Discharge Elimination System (NPDES) permit for its discharged wastewater but does operate under a NPDES permit for its stormwater discharge, NPDES Permit No. PAS902202.

Sewage Spill – June 2022

On Thursday, June 2, 2022 at 3:45 P.M., PTP staff received alarms for high bar screen levels and effluent flow. PTP personnel immediately investigated and observed that the influent pumps were ramping up and repeatedly shutting off. It was believed to be an electrical issue; therefore,

Every drop matters. Every customer counts.

the pumps were shut off and individually tested. During this time, sewage began escaping from the bar screen area into the plant roadway. Upon noticing the overflow, plant personnel opened roadway trenches and initiated other preventative measures to contain the spill onsite. The PTP maintenance team inspected the equipment and found an excessive number of rags on each of the two bar screens. The influx of rags was unusual and appeared to occur in a short period of time, likely from a slug discharge. Ultimately, this inhibited influent flow and caused the initial high level in the bar screen room and subsequent overflow of approximately 300 gallons of sewage.

In mid-June 2022, a capital project involving the replacement of the influent bar screens began. The existing bar screens are 32 years old and reached the end of their useful life. As of August 9, 2022, one new bar screen and wash compactor has been installed. The remaining equipment is expected to be installed in September 2022. Once complete, the newly installed bar screen equipment is expected to be more efficient and reliable, ultimately minimizing blockages and overflows.

The Lehigh County Authority takes our regulatory responsibilities very seriously and is always striving for full compliance.

If you have any questions, please do not hesitate to call me at 610-437-7681.

Sincerely,



Andrew Moore
Director of Plant Operations

cc: Liesel Gross, LCA
Diana Heimbach, Jacobs

Enclosures: Spill Map



Every drop matters. Every customer counts.