



LEHIGH COUNTY AUTHORITY

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

Agendas & Minutes Posted:
www.lehighcountyauthority.org

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BOARD MEETING AGENDA – February 28, 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

- *February 14, 2022 Board meeting minutes*

4. Public Comments

5. Action / Discussion Items:

FINANCE AND ADMINISTRATION

- *2020 Audit & Financial Statements (Approval) (white) (digital Board packet, pages 11-172)*
- *Board of Directors – Election of Officers*

WATER

- *Allentown Division – Emergency Declaration – Water Main Break at 27th Street (gray) (digital Board packet, page 173)*

WASTEWATER

- *Kline's Island Sewer System – Regional Sewer Capacity & Wet-Weather Planning – Regional Act 537 Plan Preparation (Approval) (salmon) (digital Board packet, pages 174-197)*

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

7. Monthly Financial Review (2nd Board meeting per month) (digital Board packet, pages 198-207) – **December report attached**

8. Monthly System Operations Overview (2nd Board meeting per month) (digital Board packet, page 208)
– **January report attached**
9. Staff Comments
10. Solicitor's Comments
11. Public Comments / Other Comments
12. Executive Sessions
13. Adjournment

UPCOMING BOARD MEETINGS		
March 14, 2022	March 28, 2022	April 11, 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

February 14, 2022

The Regular Meeting of the Lehigh County Authority Board of Directors was called to order at 12:00 p.m. on Monday, February 14, 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. Chairman Brian Nagle, Scott Bieber, Richard Bohner, Norma Cusick, Linda Rosenfeld, 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, John Parsons, Chris Moughan, Chuck Volk, Susan Sampson, Andrew Moore, Phil DePoe, Lisa Miller, Amy Kunkel, and Bryan Geissel.

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.

Kevin Baker joined the meeting at 12:02 p.m.

REVIEW OF AGENDA

Liesel Gross announced that there are no changes to the agenda. At the Board's discretion, an Executive Session may be necessary to discuss matters of potential litigation.

Ms. Gross also announced that Chris Moughan has accepted the position of Director of Service and Technology.

Chairman Nagle announced that Jeff Morgan and Linda Rosenfeld have been reappointed by the County of Lehigh to serve on the Lehigh County Authority Board of Directors for another 5 years with their terms ending December 31, 2026.

Amir Famili joined the meeting at 12:04 p.m.

APPROVAL OF MINUTES

January 10, 2022 Meeting Minutes

On a motion by Richard Bohner, seconded by Linda Rosenfeld, the Board approved the minutes of the January 10, 2022 Board meeting as written (8-0).

PUBLIC COMMENTS

2022 Suburban Water Rates – Public Comments Received

Liesel Gross noted that the Board received copies of written comments that Lehigh County Authority received from the public regarding the Suburban Division water rate increase. Two of the comments were submitted by email, and one by formal letter. The Authority's written response to the formal letter was also included in the Board's packet. Ms. Gross noted that the Authority's customer service

department also received some complaints via phone calls. Chris Moughan commented that, after some discussion about the costs needed to maintain and improve the water system, the customers seemed to understand the need for the rate increase.

ACTION AND DISCUSSION ITEMS

Nomination of Officers – Appointment of Nominating Committee

Chairman Nagle appointed Norma Cusick to serve as the Nominating Committee. Ms. Cusick will poll the Board members regarding their interest in being nominated to an officer position. Nominations will be finalized and officers will be elected at the Board's February 28 meeting.

Suburban Division – Central Lehigh and North Whitehall Water Systems – Water Supply Study

Phil DePoe gave an overview of the project, which is in alignment with the recently adopted Strategic Plan. The Water Supply Study objective is to identify and evaluate feasible means to address current and long-term water supply needs in the Central Lehigh Division (CLD) and the North Whitehall Division (NWD). Recently completed planning studies have identified the need for additional supply in the CLD and NWD systems. The need includes an acute, short-term need to enhance the reliability of supply in the CLD system due to recent and continued growth in system demand, particularly with the potential for large customers in the Upper System.

The project scope includes: reviewing existing studies and data pertaining to source water issues; establishing reasonable demand projections; assessing the existing supply and capacity of wells; establishing short-term and long-term system needs; and conducting a preliminary assessment of alternatives. The study will be complete by the third quarter 2022.

Jeff Morgan asked if the study will address water quality issues. Mr. DePoe said water quality issues are inherent to the study and will be evaluated as existing sources are reviewed and alternatives developed. Scott Bieber commented that it appears to be getting more difficult to drill new wells and asked if the Authority staff know more about this. Amy Kunkel responded that DEP regulations regarding developing new wells are stricter now than they were previously. Prolonged pump testing requirements have been instituted, and larger wellhead protection zones are now required. She noted that it is also more difficult to reactivate a well once it has been taken offline, which applies to several of the Authority's sources. Amir Famili asked Mr. DePoe to elaborate on the need for additional supply. Mr. DePoe explained that there is potential for industrial users to locate on property north of Interstate 78, which is in the Authority's supply-limited Upper System. In addition to the supply limitations in the Upper Systems, both the CLD and NWD rely on system interconnections with neighboring water systems, which must be evaluated for redundancy.

On a motion by Scott Bieber, seconded by Jeff Morgan the Board approved the Capital Plan Authorization for the CLD and NWD Water Supply Study in the amount of \$92,500.00 which includes the Professional Services Authorization to Gannett Fleming in the amount of \$77,500.00 (8-0).

A roll call vote was taken with the following votes cast:

Brian Nagle – yes
Scott Bieber – yes
Richard Bohner – yes
Norma Cusick – yes

Kevin Baker – yes
Linda Rosenfeld – yes
Jeff Morgan – yes
Amir Famili – yes

Suburban Division – Regional Sewer Capacity & Wet-Weather Planning: Engineering & Program Support

Phil DePoe noted that this approval is specifically for the renewal of the contract with AECOM, who is serving as the program manager for the development of the regional Act 537 Plan. The Act 537 Plan is mandated by DEP to be completed by March 2025 and aligns with the Authority's newly adopted Strategic Plan. As part of the Act 537 Plan, the Authority's evaluation of the Pretreatment Plant (PTP) is ongoing, and the option to upgrade the PTP to a direct discharge facility is a major driver for this request. Mr. DePoe said that AECOM is critical to navigating the regulatory process associated with the PTP upgrade option and has intimate knowledge of the planning process. Most recently, AECOM's efforts have been focused on understanding how the PTP upgrade option would work within the Delaware River Basin Commission (DRBC) regulatory framework, including an evaluation of how the Kline's Island Wastewater Treatment Plant (KIWWTP) permit would be impacted.

Scott Bieber asked if the PTP upgrade option would result in a de-rate of the KIWWTP permit. Mr. DePoe explained that based on current understanding of DRBC regulations, flows and loads can be traded between wastewater facilities. If the PTP upgrade option is viable, then some of the KIWWTP permitted flows and loads could potentially be traded off to the upgraded PTP. Investigating this option is a primary component of AECOM's planned work in 2022. Amir Famili asked about the previous cost estimates related to the PTP option and how the Authority will determine if it is a good investment. Mr. DePoe said that there will need to be an investment into the PTP regardless of what option is selected, due the age and condition of the facility. A critical component in the alternatives analysis will be to review the full cost of all options, including system expansion and upgrades as well as the cost to repair and replace currently aging equipment. Mr. Famili asked what the specific deliverable is from AECOM that will allow the Authority to decide if the PTP upgrade option is viable. Liesel Gross explained that the determination of the viability of the PTP upgrade option will be determined based on analysis of regulatory, financial, political, and constructability aspects of the option, and AECOM is focusing on all of these areas. She also referred to the Act 537 Plan "Roles & Responsibilities" chart, which describes each entity's role in the process.

On a motion by Linda Rosenfeld, seconded by Jeff Morgan, the Board approved the Capital Plan Authorization for the Regional Act 537 Plan Program Management – Planning Phase in the amount of \$115,000.00 which includes the Professional Services Authorization to AECOM in the amount of \$100,000.00 (8-0).

A roll call vote was taken with the following votes cast:

Brian Nagle – yes
Scott Bieber – yes
Richard Bohner – yes
Norma Cusick – yes
Kevin Baker – yes
Linda Rosenfeld – yes
Jeff Morgan – yes
Amir Famili – yes

Suburban Division – Upper Western Lehigh Pump Station and Force Main: Design Phase

Chuck Volk gave a brief overview of the project noting that that project is a recommendation from the Trexlertown area special study that was prepared to evaluate alternatives to resolve interceptor capacity deficiencies in the Trexlertown area, often referred to as the “Trexlertown bottleneck.” The recommendation is to construct a pump station near the Pretreatment Plant (PTP) and force main connecting to the Upper Macungie Trunk Line to divert dry day flow from the Western Lehigh Interceptor. This project has been reviewed by Upper Macungie Township staff, who are supportive of this approach.

Amy Kunkel provided details of the project and recommended Entech Engineering for design phase services based on their prior performance and expertise with wastewater conveyance facilities. Some additional easements will be needed. Chuck Volk said the Authority already has an easement for the proposed pump station on the property adjacent to the PTP. The pump station would draw treated effluent from the PTP and pump it through the proposed force main to a connection to the Upper Macungie Trunk Line near the Township’s park on Grange Road.

Chairman Nagle asked whether the Authority has explored the PennDOT right of ways in this area, since the force main appears to run parallel to the Route 222 bypass. Mr. Volk said this has been explored and the force main route will mainly stay on private property with the exception of crossing Ruppsville Road, which is a state road. Chairman Nagle also asked about the proposed route of the force main through the middle of the property the Authority owns that is adjacent to the PTP, and whether the force main would interfere with possible future plans to expand the PTP. Mr. Volk explained that there is a 150 foot power line right of way in this area. This would be utilized for the force main to minimize the disturbance and reduce the possibility of interfering with future treatment facilities, which cannot be constructed in the right of way. Scott Bieber asked about the sensor that will be placed in one of the downstream manholes and how it will be used to provide protection from overflows during a five-year storm. Mr. Volk explained that the system will use level sensors to measure the volume of sewage in the Township line so the pump station can be shut down in high-flow periods. Kevin Baker noted that there is quite a bit of difference in proposal prices for design phase services, and asked if that was a result of manhours being estimated by each consultant. Amy Kunkel explained that the price differences among the proposals are due to each consultant’s estimate of manhours. She reviewed with Entech its proposal, and said the Authority is confident in the completeness of Entech’s proposal.

On a motion by Amir Famili, seconded by Linda Rosenfeld, the Board approved the Capital Plan Authorization for the Upper Western Lehigh Pump Stations and Force Main – Design Phase in the amount of \$468,600.00 which includes the Professional Services Authorization to Entech Engineering in the amount of \$248,600.00 (7-0, with Jeff Morgan abstaining).

A roll call vote was taken with the following votes cast:

Brian Nagle – yes
Scott Bieber – yes
Richard Bohner – yes
Norma Cusick – yes
Kevin Baker – yes
Linda Rosenfeld – yes
Jeff Morgan – abstained
Amir Famili – yes

Allentown Division – Kline’s Island WWTP: Sludge Thickener Tank No. 3 Mechanical Upgrade – Construction

Chuck Volk gave a background of Sludge Thickener Tank #3 at the Kline’s Island Wastewater Treatment Plant (KIWWTP), which has been in service since 1984 and contains mechanical components that are now at the end of their useful life. The scope of the project consists of complete mechanical refurbishment of the tanks and demolition of existing mechanical equipment. Mr. Volk explained the project scope in detail and displayed interior and exterior photos of the tank components indicating their condition. He noted this project is included in the KIWWTP master plan as a near-term, high-priority project due to the age of the equipment. The tank will be down for several months and tanks #1 and #2 will have to press more sludge until the tank is back online.

Amir Famili commented about the project schedule and asked about the definition of “substantial completion.” Mr. Volk explained the term “substantial completion” is used for construction projects to indicate when the project can be put into service to serve its primary function while some project components may remain outstanding, such as site restoration or other punch list items. Solicitor Mike Gaul also explained the legal background regarding the use of “substantial completion” as an indicator of project status.

On a motion by Amir Famili, seconded by Linda Rosenfeld, the Board approved the Capital Project Authorization for the Sludge Thickener Tank No. 3 Mechanical Upgrade – Construction Phase in the amount of \$594,000.00 which includes the Professional Services Authorization to D’Huy Engineering, Inc. in the amount of \$38,000.00 and includes the General Contract Award to JEV Construction LLC in the amount of \$511,000.00 (8-0).

A roll call vote was taken with the following votes cast:

Brian Nagle – yes
Scott Bieber – yes
Richard Bohner – yes
Norma Cusick – yes
Kevin Baker – yes
Linda Rosenfeld – yes
Jeff Morgan – yes
Amir Famili – yes

MONTHLY PROJECT UPDATES / INFORMATION ITEMS

Liesel Gross reviewed the new report format, which is broken into three sections: Upcoming Agenda Items, Project Updates, and Open Project List. She noted that additional changes will be made next month as the report format is refined, and she requested any Board member feedback to be sent to her for inclusion in the next report.

Ms. Gross highlighted items for the February 28th meeting and noted that the auditors will be attending the meeting via Zoom to present the 2020 Audit and Financial Statements.

Amir Famili asked how “project closeout” is defined. Chuck Volk explained that a project is considered to be in “project closeout” phase after a final inspection has occurred, all punch list items are addressed, and all contract and legal documents are complete, including final payment. Liesel Gross noted that projects shown in the report as being in project closeout phase will be removed from the report in the following month.

MONTHLY SYSTEM OPERATIONS OVERVIEW

John Parsons reviewed the December 2021 Monthly Systems Operations report, highlighting items of interest in the report. The manhole remediation project in Upper Milford Township was completed with 38 manholes lined. Three SSOs occurred in December 2021 including one in Allentown that resulted from a grease blockage, one in the Suburban Division that resulted from a grease and rag buildup, and one at the Lynn Township system. Mr. Parsons also noted that the final report was received from Arcadis pertaining to the condition assessment of the Park Pump Station Force Main. Arcadis recommends the condition assessment be repeated in 10 years or prior to the 50th anniversary of the station being put online.

Norma Cusick asked why the Authority has so many water shutoffs for non-payment when there are programs available to assist customers with payments. Chris Moughan responded that the Authority has seen an increase in applications for assistance. Liesel Gross added that the customer assistance programs are based on income level and the thresholds may be set too low for some customers to meet the threshold and receive assistance.

Andrew Moore reviewed the Notice of Violation regarding the Sand Spring Wastewater Treatment Plant. Most of the violations outlined in the NOV date back a few years, prior to the new plant being constructed in 2020 and 2021. However, some of the violations were attributed to start up of the new system. The system has experienced some high flows that affect the plant's performance, and the staff have been working to pinpoint where these additional flows are coming from. Amir Famili asked if this project is closed out. Chuck Volk said the project has been closed out and is currently under warranty. The contractor has corrected programming issues that were related to some of the plant start-up issues, but the continuing high-flow problem does not appear to be related to project construction.

1,4 Dioxane Discharge

A memorandum was included with the Monthly System Operations report regarding an issue with 1,4 Dioxane discharge from the Authority's regional wastewater system. Andrew Moore explained that in May 2021, DEP detected 1,4 dioxane in the outflow in the Kline's Island Wastewater Treatment plant (KIWWTP). Because the chemical is unregulated, the Authority had no previous wastewater data available, but pursued several different points of investigation. The conclusion was drawn that the 1,4 Dioxane was being discharged into the Pretreatment Plant, passing through the plant and traveling to the KIWWTP and being discharged to the Lehigh River. Additional sampling was conducted and the source of the material was discovered to be a specific waste discharger within the Authority's waste hauler program. When the industry was identified, Coim USA, Inc., the Authority immediately suspended their industrial waste permit so no additional discharges would occur. Liesel Gross recognized Mr. Moore's due diligence in finding and eliminating the source of the discharge.

Ms. Gross explained that the waste hauler program has been in existence since the 1990s and has been a positive and productive component of the Authority's program. However, there are risks inherent in a waste hauler program, and difficulties and costs associated with monitoring for unregulated contaminants or identifying unauthorized discharges. The Authority mitigates these risks through strict adherence to regulatory requirements.

Ms. Gross noted that some customer comments have been received following the news coverage of this incident. One customer raised the question about safety of the Authority's drinking water. She

explained that the discharge of 1,4 Dioxane was contained to the wastewater system, with the source of the chemical coming from a waste hauler from outside the area, so the Authority's drinking water supply was not affected. Ms. Gross commented that there is a dedicated page on the Authority's website that provides additional information on the topic of unregulated contaminants.

Amir Famili stated that Andrew Moore did a great job tracing this chemical back to Coim USA, Inc. He also asked if Mr. Moore keeps records and samples from the haulers, and how long the samples are kept. Mr. Moore explained that samples are taken from waste loads coming into the plant in accordance with the requirements of the permits and the hauler program protocols. Not every load is sampled, and samples are kept for a period of time but typically discarded after the laboratory analysis is complete. Chairman Nagle asked about the vetting that is done for haulers to use the Pretreatment Plant as a discharge location. Mr. Moore explained some details about the permitting process to properly categorize and vet the hauler, the waste generator, and any industrial waste generators. Linda Rosenfeld commented that a news article reported that Coim would normally send their waste to upstate New York but for some reason they brought it here to the Authority's facility. Mr. Moore said he cannot verify this because the Authority only has information on what Coim was bringing to the Authority's facility. Since Coim is no longer discharging to the Authority's system, Mr. Moore does not have additional information about Coim's continued operation.

Jeremy Thompson, a customer and resident of Fogelsville, commented that neighbors were alarmed by this incident when it was reported in the local news media and thanked Mr. Moore for his due diligence. He also asked about the \$2.8 million in revenue the Authority generates from the hauler program. He asked if this figure is net revenue or gross revenue, and what the margin is, after expenses. Ed Klein said he estimates the net revenue for the program, after expenses, to be approximately \$400,000. Mr. Thompson commented that if a hauler must come from so far away to discharge their waste to the Authority's facility, it should be a red flag. Mr. Thompson thanked the Board for their time and efforts to seriously consider the risks associated with this program. Jeff Morgan said he feels this was an isolated incident that was handled appropriately by the Authority staff. He reminded the Board that the Pretreatment Plant was designed to handle industrial wastes and the hauler program is an important program because the community needs a place to properly dispose of such wastes.

Emmaus Consecutive Division – PFAS Contamination

Liesel Gross reported a contamination incident affecting the Authority's Emmaus Consecutive Division water system. She explained that the Authority purchases water from the Borough of Emmaus to supply drinking water to 417 homes located outside the Borough boundaries in various locations of Upper Milford, Lower Macungie, and Salisbury townships. In December 2021 the Authority learned that two drinking water supply wells in the Borough had test results indicating levels of Perfluorooctane Sulfonate (PFOS) and Perfluorooctanoic Acid (PFOA) (collectively known as "PFAS") above the Lifetime Health Advisory level established by the EPA. Contaminants in the PFAS category are currently not regulated. One well was very high and taken off-line. PFAS are found in many household products as well as fire-fighting foam. The Borough has traced the contamination of their wells to leakage of fire-fighting chemicals stored at the Borough's fire training facility. Ms. Gross has discussed solutions with the Borough manager and offered the Authority's assistance to help resolve this. Chuck Volk and his team have provided a preliminary analysis of potential water system interconnections from the Authority's system that may be helpful to supplement or replace the Borough's well supplies. The Borough will be evaluating alternatives to address the problem.

Buss Acres Division – System Update

Chris Moughan provided an update on the Buss Acres water system, which has faced several boil water advisories in the past year. He explained that the boil advisories have not been related to the system upgrade project directly. The updated SCADA system was designed to shut the system down according to certain system triggers, and the system was working as designed. However, communication issues at the facility have triggered system shut-downs several times, which caused the need to issue boil advisories to the customers. The communication network issue has been addressed, which should provide a permanent solution to the problem. Chairman Nagle asked what the public reaction has been with this upgrade project. Liesel Gross noted that the primary customer interaction regarding the system upgrade has been related to construction impacts such as tree planting and presence of construction equipment.

Amir Famili asked about the two injuries on the Monthly Operations report. John Parsons reported that one injury was due to a spray of hypochlorite in the eye and another one was due to an electric shock received when a technician was cutting a service line. He reported that both incidents have undergone a root cause analysis and were avoidable through the use of proper safety equipment and protocols.

STAFF COMMENTS

None.

SOLICITOR'S COMMENTS

None.

PUBLIC COMMENTS / OTHER COMMENTS

None.

EXECUTIVE SESSION

Chairman Nagle announced there will be an Executive Session at 2:30 p.m. to discuss matters of potential litigation.

ADJOURNMENT

There being no further business, the Chairman adjourned the meeting at 2:22 p.m.

Richard Bohner
Secretary

ANNUAL COMPREHENSIVE FINANCIAL REPORT
FOR THE YEARS ENDED
DECEMBER 31, 2020 AND 2019
LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA

PREPARED BY:

EDWARD C. KLEIN
CHIEF FINANCIAL OFFICER

TODD A. MARION
CONTROLLER

LINDA M. EBERHARDT
ACCOUNTING SUPERVISOR

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA**

**COMPREHENSIVE ANNUAL FINANCIAL REPORT
For the Years Ended December 31, 2020 and 2019**

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**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA**

**COMPREHENSIVE ANNUAL FINANCIAL REPORT
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**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA**

**COMPREHENSIVE ANNUAL FINANCIAL REPORT
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INTRODUCTORY SECTION



1053 SPRUCE ROAD * P.O. BOX 3348 * ALLENTOWN, PA 18106-0348
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December 21, 2021

Lehigh County Authority Customers
Chairman and Members
Lehigh County Authority
Allentown, PA 18106

It is our pleasure to present the 2020 Lehigh County Authority (LCA or Authority) Annual Comprehensive Financial Report which includes the results of 2020 operations and activities.

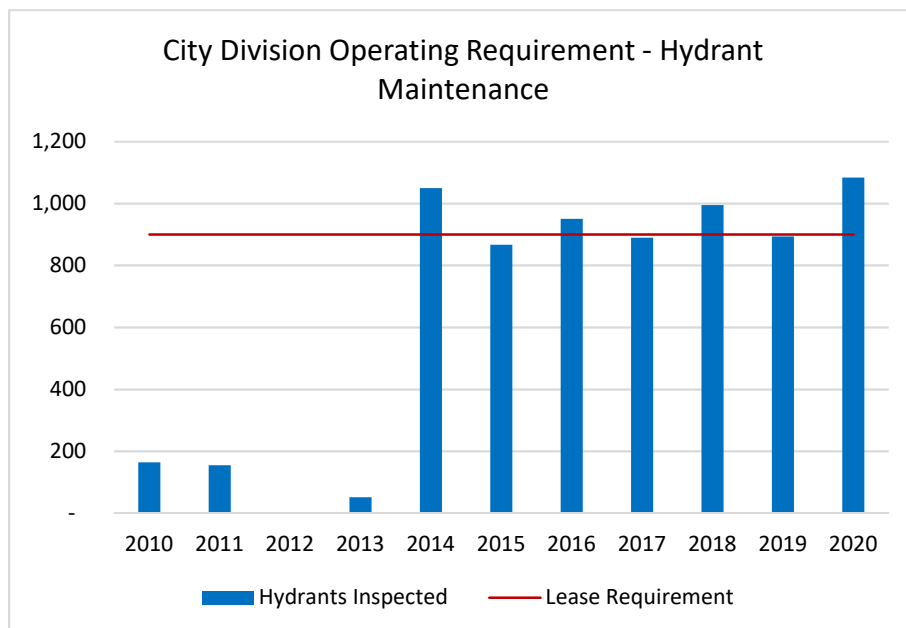
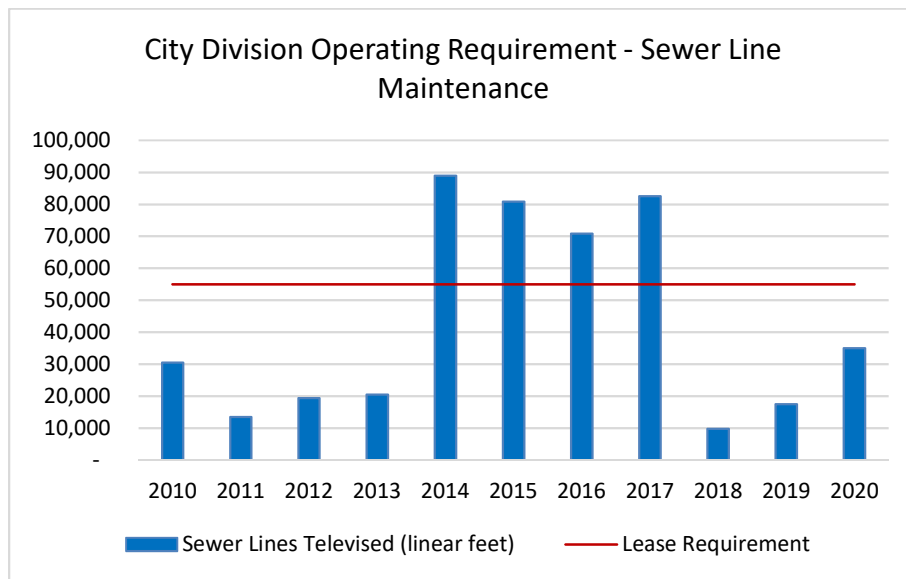
Results from 2020 reflect the seventh full year of operation of the City of Allentown water and wastewater systems (City Systems) under a 50-year Concession Lease (Concession) which commenced on August 8, 2013. Concession activities for the year included a number of significant items:

- The 2020 bond coverage was 183%, exceeding the 120% requirement under the 2013 Concession Bond Financing;¹
- LCA made capital improvements of \$4,158,796 to the City System. There were no main replacement projects in 2020. Water system improvements amounted to \$1,890,492 and Wastewater projects totaled \$2,268,304.
- LCA and the City executed an amended Concession Lease Agreement in September 2020, which resolved outstanding legal disputes and created opportunities for revenue enhancements that will support increased capital investment in the City System during the remainder of the Lease. To support this amendment, LCA refinanced \$155,915,000 in bonds associated with the Lease, which resulted in an economic gain to the Authority.
- The City distribution and collections systems faced their seventh full calendar year of operating standards requirements under the Concession, and met or exceeded all requirements. The Authority's performance on selected operating standards are displayed in the graphs below.

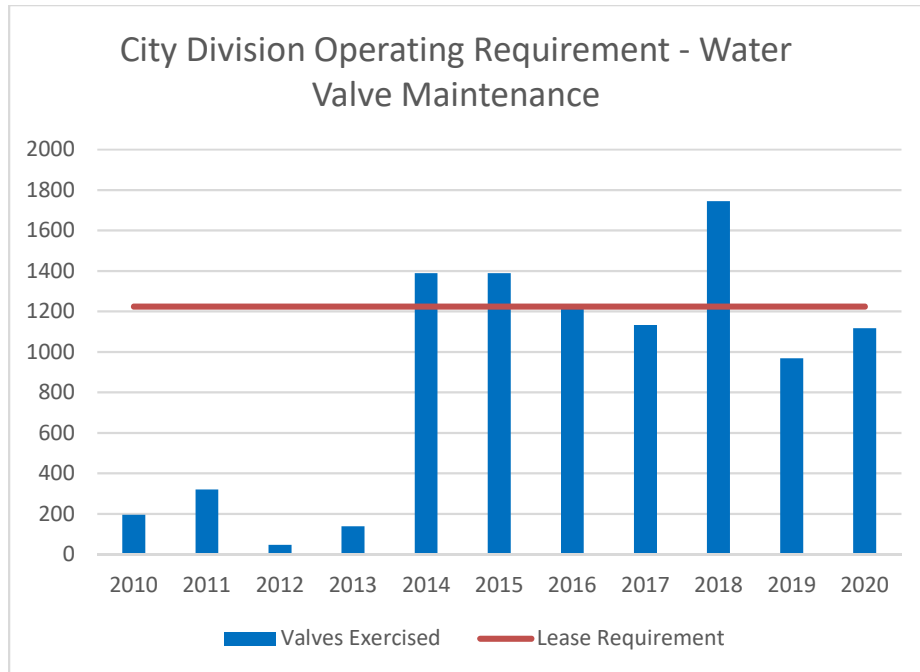
(Note that the performance levels shown on these graphs indicate actual tasks completed within the calendar year and that full compliance with the Concession operating standards has been met through a combination of both current year and prior-year activity totals, which accumulate to achieve compliance.)

¹ While the statement of Revenues, Expenses and Changes in Net Position indicates Interest Expense of \$17,257,071, non-cash transactions to interest expense worth (\$6,137,263) and amortized bond premium (\$266,395) were both excluded from the calculation of 2020 interest expense for bond coverage calculation purposes. The 2020 interest expense used for bond coverage calculation was \$10,853,413.

Every drop matters. Every customer counts.



Every drop matters. Every customer counts.



In the Suburban Division, capital improvements totaled \$13,470,168 with \$5,088,716 expended on the water system and \$8,381,452 on the wastewater system.

On an organization-wide basis LCA achieved the following in 2020:

- In 2020, Authority staff completed the final year of the “LCA 2020” plan, a set of organization-wide strategies that were developed in 2016 around financial viability, environmental compliance, asset management, and workforce development goals. With the completion of the “LCA 2020” plan, renewed focus on strategic planning will be required in 2021.
- The Authority continued to lead regional efforts to develop an integrated plan to address sanitary sewer overflows and provide system capacity for future economic development. In January 2020, the Pa. Department of Environmental Protection (DEP) issued a Connection Management Plan to allow new connections to occur while this planning effort is under way. In September 2020, a regional, interim Act 537 Sewage Facilities Plan was prepared and submitted to DEP, which included a plan of activities through 2025 to further the region’s goals. LCA will lead these efforts in 2021 and beyond.
- We continued the overall advancement of the use of technology throughout the entire organization with an increased focus on GIS, Maintenance Management, dashboarding of key performance indicators, and use of mobile applications for data collection.

Every drop matters. Every customer counts.

- The global COVID-19 pandemic overshadowed all other activities in 2020. The Authority focused heavily on achieving baseline operational and employee health and safety goals throughout the year. Key components of LCA’s pandemic response included rapid deployment of technology to support remote work arrangements where feasible, scheduling and other workforce adjustments to support required distancing and quarantine protocols, frequent employee communication, and a waiver of all customer collections activities beginning in March 2020. These activities continued through the end of 2020.

These items among others are intended to promote synergies between the former City and Suburban systems and lead to enhanced integration and economies in every aspect of LCA’s ongoing responsibilities. For more on 2020 results, additional information is included in Management’s Discussion and Analysis on pages 16-26 of the Report.

Responsibility for the accuracy, completeness and fairness of the report, including all disclosures, rests with the Authority. We believe that this report, which was prepared by the administrative staff, is accurate in all material aspects, is presented in a manner designed to fairly present the financial position and results of operation as measured by the Authority’s financial activity, and includes all disclosures necessary to enable the reader to gain an understanding of the Authority’s financial activity.

Overview of Annual Financial Report: Management’s Discussion and Analysis (MD&A) serves as an introduction to, and should be read in conjunction with, the basic audited financial statements and supplementary information. The MD&A represents management’s examination and analysis of the Authority’s financial condition and performance during the last three years. Summary financial statement data, key financial and operational indicators included in the Authority’s Strategic Plan, benchmark program, budget, bond documents and other management tools were used for the analysis.

Accounting System and Internal Control: The Authority’s accounting system is maintained on an accrual basis of accounting in accordance with United States generally accepted accounting principles. In developing the Authority’s accounting system, consideration was given to the adequacy of internal accounting controls. These controls are designed to provide reasonable, but not absolute, assurance regarding: (1) safeguarding assets against loss from unauthorized use or disposition; and (2) the reliability of financial records for preparing financial statements and maintaining accountability for assets. The concept of reasonable assurance recognizes that: (1) the cost of a control should not exceed the benefits likely to be delivered; and, (2) the evaluation of costs and benefits require estimates and judgments by management. We believe the Authority’s internal accounting controls adequately safeguard assets and provide reasonable assurance of proper recording of financial transactions.

Independent Audit: The Pennsylvania Municipality Authorities Act requires an annual audit of the books of account, financial records and transactions of the Authority by an independent certified public accountant selected by the Authority. In addition, various financing documents require such an audit. The auditors’ opinion for the 2020 audit has been included in this report.

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GOVERNMENT PROFILE

LCA was incorporated in 1966 by the Lehigh County Commissioners and thereafter was directed to plan and construct a water system and a wastewater interceptor system in Western Lehigh County. The systems were needed to serve proposed industrial and commercial developments and serve new residences driven by the growing population of the area. Thereafter, acquiring existing systems and developer extensions were the prime vehicles for LCA's expansion in Western Lehigh County. LCA also expanded into other areas of Lehigh and Northampton counties by acquiring satellite water and wastewater systems and wherever possible integrating them with other LCA systems.

As mentioned previously, in 2013, a major step towards regionalization of Lehigh County water and wastewater systems was accomplished through the Concession for the City Systems, which created a regional service approach for many communities in Lehigh County.

LCA currently provides two types of services to communities in the City Division. Through the Water Plant and Distribution System (the City Water System) LCA serves 46,921 residential and business units in the City of Allentown and supplies water under Municipal Services Agreements to Lehigh County Municipalities of South Whitehall, Hanover, Salisbury, Whitehall, and to the LCA service area adjacent to the City of Allentown (the Suburban Division) under various water supply agreements. Through the Sewer Utility System (the City Sewer System) LCA provides sewage collection, treatment and disposal services to 46,901 residential and business units in the City of Allentown and to the Lehigh County Municipalities of Emmaus, Hanover, Salisbury, Lower Macungie and South Whitehall, the Coplay-Whitehall Sewer Authority, and to the LCA Suburban Division under several inter-municipal agreements.

LCA currently provides four types of service to communities in the Suburban Division. Through the Western Lehigh Interceptor System, LCA provides sewage transportation service to the Townships of Lower Macungie, Upper Macungie, Upper Milford, Weisenberg and the Boroughs of Alburtis, Emmaus and Macungie. LCA also owns and operates wastewater collection systems in the Upper Milford, Heidelberg, Lowhill, Lynn, North Whitehall, Weisenberg and Washington Townships serving a total of 2,948 customers. The Authority provides sewage transportation service to Salisbury and South Whitehall Townships along with the other users of the Western Lehigh Interceptor System excluding Emmaus. As of December 31, 2020, the Suburban Water System serves 23,282 residential and business units in the Lehigh County Municipalities of Upper and Lower Macungie, North Whitehall, Washington, Weisenberg, South Whitehall, Heidelberg, Lower Milford, Lowhill, Lynn, Salisbury and Upper Milford Townships and Moore Township in Northampton County.

In aggregate, LCA serves a population of over 200,000 with water, wastewater, or both services throughout its service areas.

Budgetary Control: LCA annually adopts operating and capital budgets based on an assumed level of water and wastewater system operation. Monthly reports are prepared to monitor each budget.

The Finance Department is authorized to transfer budgeted amounts between line items within any budget; however, any revisions that alter the total expenses or revenue of any budget must be approved by the Authority Board. The level of control (level at which expenses may not exceed budget) is the individual budget within each fund. Budgets for all funds are adopted on a basis consistent with generally accepted accounting principles.

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ECONOMIC CONDITIONS

The Lehigh Valley saw unfavorable economic conditions in 2020, with the unemployment rate increasing from 5.0% as of year-end 2019 to 6.4% as of year-end 2020 in Lehigh County. The 2020 year-end unemployment rate of 6.4% is lower than the State rate of 6.9% and the National rate of 6.7%. Over the years, the Lehigh Valley has built a diversified residential and industrial base, which has mitigated the economic volatility experienced in other larger east coast cities. The City of Allentown has experienced significant redevelopment over the past 5 years with projects like the PPL Arena, the NIZ Development Zone, Waterfront Development and other construction.

Increased usage of both water and wastewater services by the Suburban Division's industrial customer base has allowed rates to remain among the lowest in the Commonwealth, although a 6.9% increase was implemented in 2020, and additional increases are expected in the years ahead to ensure revenues are sufficient to keep pace with increased capital improvement requirements. Under the Concession, rates to City residents and businesses rose in 2020 reflecting the change in the Consumer Price Index in 2019 plus Capital Cost Recovery Charges to recover the cost of Major Capital Improvements (>\$1,000,000) completed in 2018 and 2019. The total increase in water and sewer charges to the average residential customer in the Authority's Allentown Division in 2020 was 4.1%.

AWARDS AND ACKNOWLEDGEMENTS

- LCA was recognized by the Government Finance Officers Association of The United States and Canada with a Certificate of Achievement for Excellence in Financial Reporting for its Annual Comprehensive Financial Report for the year ended December 31, 2019. The Certificate of Achievement is a prestigious national award, recognizing conformance with highest standards for preparation of state and local government financial reports.

Operational Awards:

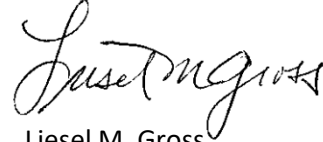
- Eastern Pennsylvania Water Pollution Control Operator's Association: 2020 Laboratory Excellence Award.
- Eastern Pennsylvania Water Pollution Control Operator's Association: 2020 Plant Operation and Maintenance Excellence Award – Greater than 2MGD.
- Eastern Pennsylvania Water Pollution Control Operator's Association: Dan Treat Memorial Award: Gary Saunders Jr., Wastewater Treatment Plant Manager.
- Eastern Pennsylvania Water Pollution Control Operator's Association: The Bolenius-Weist Clean Streams Award: Robert Kerchusky, LCA Wastewater Services Manager (Retired).
- Partnership for Safe Water US EPA and Association of State Drinking Water Administrators: Area Wide Optimization Program Award - Water Treatment Plant (thirteenth consecutive year awarded)

These awards recognize the staff's outstanding efforts towards protecting public health and the environment through the services we provide to the community.

Every drop matters. Every customer counts.


Acknowledgements: We recognize and thank LCA employees and the Board for their focus and dedication which underlie our 2020 accomplishments. We also thank the Board for its continued encouragement and support in planning, operating and managing the Authority's affairs in a forward looking and business-like manner.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Liesel M. Gross". The script is fluid and cursive.

Liesel M. Gross
Chief Executive Officer

Edward C. Klein

A handwritten signature in black ink, appearing to read "Edward C. Klein". The script is fluid and cursive.

Chief Financial Officer

Every drop matters. Every customer counts.



Government Finance Officers Association

Certificate of
Achievement
for Excellence
in Financial
Reporting

Presented to

**Lehigh County Authority
Pennsylvania**

For its Comprehensive Annual
Financial Report
For the Fiscal Year Ended

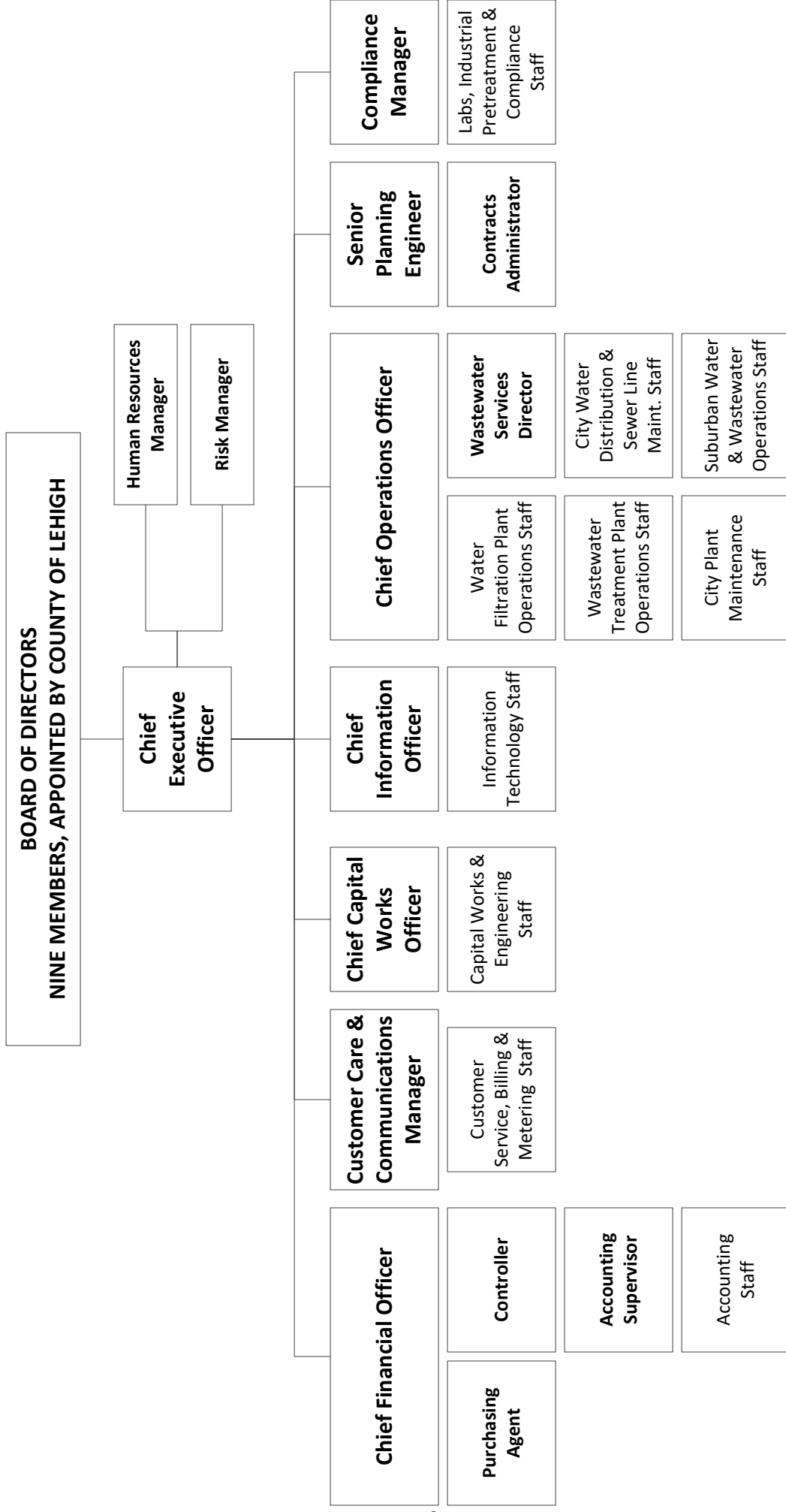
December 31, 2019

Christopher P. Morill

Executive Director/CEO

Lehigh County Authority

Organizational Chart – December 31, 2020



**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA
LIST OF PRINCIPAL OFFICIALS
December 31, 2020**

AUTHORITY BOARD

Brian C. Nagle
Chairman

Scott C. Bieber
Vice Chairman

Ted Lyons
Treasurer

Richard H. Bohner
Secretary

Norma A. Cusick
Assistant Secretary

Jeff Morgan
Member

Linda Rosenfeld
Member

Amir Famili
Member

Kevin Baker
Member

AUTHORITY STAFF

Liesel M. Gross
Chief Executive
Officer

Edward C. Klein
Chief Financial
Officer

John W. Parsons
Chief Operating
Officer

Christopher W. Moughan
Chief Information
Officer

Charles E. Volk
Chief Capital Works
Officer

Andrew D. Moore
Compliance Manager

Kathy A. Martin
Human Resources
Manager

Susan L. Sampson
Communications Manager

Philip M. DePoe
Senior Planning
Engineer

Kevin German
Risk Manager

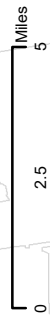
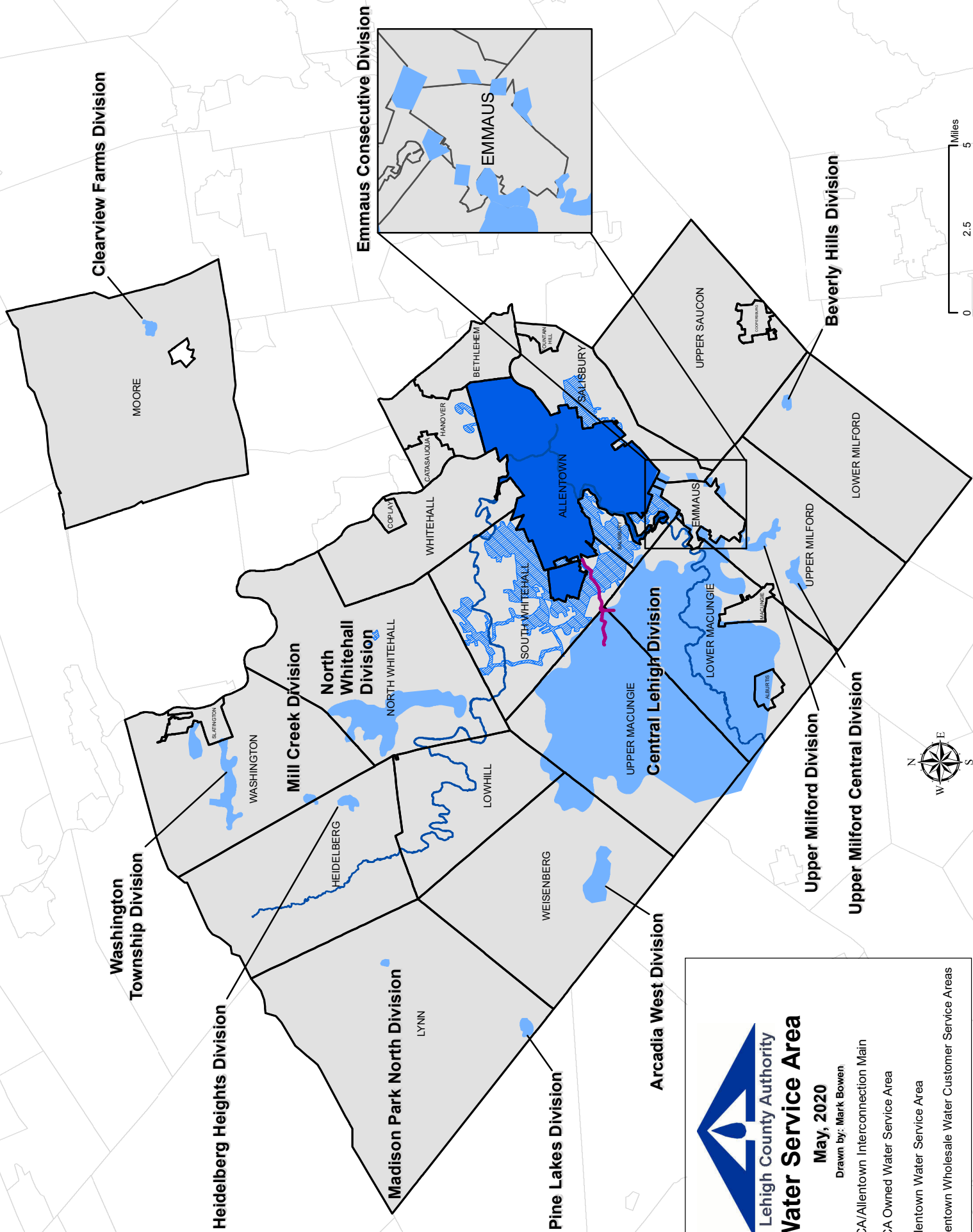
PROFESSIONAL SERVICES

Trustees
Bank of New York Mellon
M & T Bank Corporation

Auditor
Zelenkofske Axelrod LLC

Water Consultant
ARRO Consulting, Inc.

Wastewater Consultant
Arcadis, U.S.



Lehigh County Authority

Water Service Area

May, 2020

Drawn by: Mark Bowen

~~~~~ LCA/Allentown Interconnection Main

LCA Owned Water Service Area

Allentown Water Service Area

Allentown Wholesale Water Customer Service Areas

Washington

Township Division

(Discharge to Slatington Borough)

Slatington Wastewater  
Treatment Plant

Wynnewood Terrace System

Sand Spring System

NORTH  
WHITEHALL

LYNN

Lynn Township System

Heidelberg Heights Division

HEIDELBERG

LOWHILL

Lowhill Township System

Weisenberg Township System

WEISENBERG

Arcadia West System

SOUTH WHITEHALL

ALLERTOWN

BETHLEHEM

HANOVER

CATASQUOGA

WHITEHALL

COPIHAW

EMMAUS

UPPER MACUNGIE

LOWER MACUNGIE

ALBERTUS

MACUNGIE

UPPER MILFORD

LOWER MILFORD

UPPER SAUCON

LOWER SAUCON

UPPER MILFORD

LOWER MILFORD



## Lehigh County Authority Wastewater Service Area

May, 2020

Drawn by: Mark Bowen

● LCA Small Collection Systems WWTP

~ LCA Interceptor System

■ LCA Wastewater (WW) Service Areas

▨ City Signatories include: Coplay-Whitehall Sewer Authority, Emmaus, Salisbury Twp & South Whitehall Twp

## Western Lehigh Service Area

(Transmission from Municipalities  
to Allentown for Treatment)

Signatories include: Allentown, Lower Macungie  
Township, Lowhill Township, Macungie & Upper  
Macungie Township



0 2.5 5  
Miles

## **FINANCIAL SECTION**

**This section is composed of the following four parts:**

**INDEPENDENT AUDITORS' REPORT**

**MANAGEMENTS DISCUSSION AND ANALYSIS**

**FINANCIAL STATEMENTS**

**SUPPLEMENTAL SCHEDULES**



# *Zelenkofske Axelrod LLC*

**CERTIFIED PUBLIC ACCOUNTANTS**

EXPERIENCE | EXPERTISE | ACCOUNTABILITY

## INDEPENDENT AUDITOR'S REPORT

Board of Directors  
Lehigh County Authority  
Allentown, Pennsylvania

### ***Report on the Financial Statements***

We have audited the accompanying financial statements of the business-type activities, each major fund, and the aggregate remaining fund information of Lehigh County Authority, Pennsylvania, as of and for the years ended December 31, 2020 and 2019, and the related notes to the financial statements, which collectively comprise the Lehigh County Authority's basic financial statements as listed in the table of contents.

### ***Management's Responsibility for the Financial Statements***

Lehigh County Authority's management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### ***Auditor's Responsibility***

Our responsibility is to express opinions on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

830 Sir Thomas Court, Suite 100, Harrisburg, PA 17109  
3800 McKnight East Drive, Suite 3805, Pittsburgh, PA 15237  
34745 Burbage Road, Frankford, DE 19945

2370 York Road, Suite A-5, Jamison, PA 18929  
420 Chinquapin Round Road, Suite 2-i, Annapolis, MD 21401  
210 Tollgate Hill Road, Greensburg, PA 15601

[www.zallc.org](http://www.zallc.org)



# *Zelenkofske Axelrod LLC*

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## ***Opinions***

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the business-type activities, each major fund, and the aggregate remaining fund information of Lehigh County Authority, Pennsylvania, as of December 31, 2020 and 2019, and the respective changes in financial position and, where applicable, cash flows, thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

## ***Adoption of Governmental Accounting Standards Board Pronouncements***

As discussed in Note 1 to the financial statements, in 2020 Lehigh County Authority adopted the provisions of GASB Statement No. 83 "*Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements*", GASB Statement No. 90, "*Majority Equity Interest—an amendment of GASB Statements No. 14 and No. 61*" and paragraphs 4 and 5 of GASB Statement No. 97 "*Certain Component Unit Criteria, and Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans—an amendment of GASB Statements No. 14 and No. 84, and a supersession of GASB Statement No. 32*". Our opinion is not modified with respect to these matters.

## ***Other Matters***

### ***Required Supplementary Information***

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 16 through 26 and the schedule of changes in the net pension liability and related ratios, schedule of contributions for the pension plan, schedule of changes in net OPEB liability and related ratios – Suburban Employees, schedule of contributions – Suburban Employees OPEB Plan, schedule of investment returns – Suburban Employees OPEB Plan, and schedule of changes in total OPEB liability and related ratios – City Division, on pages 78 through 83 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

### ***Other Information***

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise Lehigh County Authority's basic financial statements. The Introductory Section, Other Supplementary Information, Supplemental Schedules, and Statistical Section are presented for the purpose of additional analysis and are not a required part of the basic financial statements.



# *Zelenkofske Axelrod LLC*

**CERTIFIED PUBLIC ACCOUNTANTS**

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The Other Supplementary Information and the Supplemental Schedules are the responsibility of management and were derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the Other Supplementary Information and the Supplemental Schedules are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The Introductory and Statistical Sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

*Zelenkofske Axelrod LLC*

ZELENKOFSCHE AXELROD LLC

Harrisburg, Pennsylvania  
December 21, 2021



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

## **INTRODUCTION**

Lehigh County Authority is pleased to present its Annual Financial Report for the year ended December 31, 2020. The Authority is a water and wastewater agency created by the County of Lehigh, Pennsylvania in 1966 under the Pennsylvania Municipality Authorities Act. Management's Discussion and Analysis (MDA) is intended to serve as an introduction to the Authority's basic financial statements.

Certain prior year amounts have been reclassified to conform with current year presentation.

Information in this MDA is presented under the following headings:

- Authority Activities and Highlights
- Overview of the Financial Statements
- Financial Analysis
- Capital Assets & Service Concession Arrangement
- Debt Administration
- Economic Factors and Rates
- Contacting the Authority's Financial Management

## **MANAGEMENT'S DISCUSSION AND ANALYSIS**

### **Response to COVID-19 Pandemic**

In March 2020, an emergency was declared by the Authority's Board of Directors to allow staff to take necessary actions to respond to the global COVID-19 pandemic. The Authority's response plan focused on contingency staffing plans to ensure a safe work environment and maintain reliable essential services for the community. While some additional expenses were incurred to achieve these goals, these increases were offset largely by deferment of non-critical projects.

Revenue impacts associated with the pandemic included decreased commercial water sales and a modest increase in residential water sales. Both of these trends were associated with changes in business operations across the region including shut-downs of many businesses and broad adoption of work-from-home arrangements. The revenue impact of these water sales trends was offset by increases in industrial water sales, driven by food and beverage manufacturers being classified as "essential" business functions and a strong market for food and beverage products during the pandemic. Cash flow impacts included reduction in penalties and fees collected, and delayed collection of customer receivables, as all collections activities were halted during the pandemic. The Authority expects to recover fully from these cash flow impacts when collections activities resume in 2021.



## Authority Activities and Highlights

The Authority's City Division was created on August 7, 2013, when the Authority acquired the rights to lease and operate the City of Allentown's Water and Wastewater Systems for a term of 50 years. This transaction, which was memorialized by the Allentown Water and Sewer Utility System Concession and Lease Agreement, was financed through the issuance of \$307,683,599 of bonds. In 2020, the Authority's Concession agreement with the City was amended to achieve mutual goals related to revenue capacity and operational sustainability of the system, and \$155,915,000 of the bonds were refinanced to support the process, the positive impacts of which are described in the financial statements included in this report.

At the close of 2020, the Authority's total assets and deferred outflows exceeded its liabilities and deferred inflows by \$144,003,517 (net position). The portion of net position that can be used to meet the Authority's on-going obligations to customers and creditors, unrestricted net position, is (\$21,127,950).

The Authority's net position decreased in 2020 by \$1,107,999, with a decrease in the City fund of \$4,289,351 partially offset by an increase in the Suburban Wastewater fund of \$2,724,420 and an increase in the Suburban Water fund of \$456,932.

Operating revenues increased from \$61,088,459 in 2019 to \$65,024,777 in 2020 due to increased Suburban Water Revenues of \$936,134, an increase in Suburban Wastewater revenues of \$2,092,371 and an increase in City Division Revenues of \$907,813. Operating expenses increased from \$48,768,466 in 2019 to \$50,961,442 in 2020 due to inflationary effects on employee cost, higher purchased services, and higher depreciation and amortization.

## Overview of the Financial Statements

Lehigh County Authority's basic financial statements include statements of net position, statements of revenues, expenses and changes in net position, statements of cash flows and notes to the financial statements. This report also includes other supplementary information in addition to the basic financial statements themselves.

The Authority's financial statements are prepared on an accrual basis in accordance with generally accepted accounting principles promulgated by the Governmental Accounting Standards Board (GASB).

**Government-wide financial statements:** The government-wide financial statements are designed to provide readers with a broad overview of the Authority's finances in a manner similar to private sector business.

**Statement of net position:** The statement of net position presents the financial position of the Authority. It presents information on the Authority's assets, deferred outflows of resources, liabilities, and deferred inflows of resources, with the difference between the four reported as net position. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the Authority is improving or deteriorating.

**Statement of revenues, expenses, and changes in net position:** The statement of revenues, expenses, and changes in net position presents information showing how the Authority's net position changed during the most recent fiscal year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of related cash flows. Revenues are recognized when earned, not when they are received. Expenses are recognized when incurred, not when they are paid. Additionally, some revenues and expenses are reported in this statement for items that will result in cash flows in future fiscal periods (e.g. accrued wages).

**Statement of cash flows:** The statement of cash flows presents information on the effects of the changes in assets, liabilities and operations have on cash during the course of the fiscal year.

**Statement of fiduciary net position:** This statement presents the financial position of the Authority's OPEB Trust Fund. It presents information on the funds, assets, and liabilities, with the difference reported as net position held in trust for employees' post-retirement benefits.

**Statement of changes in fiduciary net position:** The statement presents information on the contributions, changes in the fair value of investments and expenses of the Authority's Other Post Employment Benefit (OPEB) Trust Fund.

**Notes to the financial statements:** The notes provide additional information that is essential to a full understanding of the data provided in the Authority-wide financial statements.

**Proprietary funds:** The Authority maintains proprietary funds. Enterprise funds are used to report functions presented as business-type activities, accounting for its suburban water, suburban wastewater, and city division operations.

**Other information:** In addition to the basic financial statements and accompanying notes, this report also presents certain required supplementary information concerning the Authority's obligation to provide pension benefits and OPEB for its employees.

**Financial Analysis**  
**Net Position (City Division):**

A summary of the Authority's City Division Statements of Net Position at December 31 are presented as follows:

|                                      | <u>2020</u>            | <u>2019</u>            | <u>2018</u>            |
|--------------------------------------|------------------------|------------------------|------------------------|
| Current Assets, Unrestricted         | \$ 13,304,647          | \$ 13,707,938          | \$ 9,452,534           |
| Non-current Assets:                  |                        |                        |                        |
| Restricted                           | 59,947,285             | 55,676,307             | 57,849,011             |
| Capital Assets, Net                  | 645,988                | 835,697                | 999,453                |
| Other Assets, Net                    | <u>255,101,102</u>     | <u>244,343,059</u>     | <u>246,854,949</u>     |
| Total Assets                         | 328,999,022            | 314,563,001            | 315,155,947            |
| Deferred Outflows of Resources       | <u>30,422,536</u>      | <u>3,185,591</u>       | <u>1,891,432</u>       |
| Total Assets & Deferred Outflows     | \$ 359,421,558         | \$ 317,748,592         | \$ 317,047,379         |
| Current Liabilities                  | \$ 5,294,229           | \$ 4,466,618           | \$ 5,143,326           |
| Non-current Liabilities              | <u>411,778,591</u>     | <u>368,670,338</u>     | <u>361,819,727</u>     |
| Total Liabilities                    | 417,072,820            | 373,136,956            | 366,963,053            |
| Deferred Inflows of Resources        | <u>2,026,453</u>       | -                      | <u>1,341,769</u>       |
| Total Liabilities & Deferred Inflows | \$ 419,099,273         | \$ 373,136,956         | \$ 368,304,822         |
| Net Position:                        |                        |                        |                        |
| Net Investment in Capital Assets     | \$ 645,988             | \$ 835,697             | \$ 999,453             |
| Unrestricted                         | <u>(60,323,703)</u>    | <u>(56,224,061)</u>    | <u>(52,256,896)</u>    |
| Total Net Position                   | <u>\$ (59,677,715)</u> | <u>\$ (55,388,364)</u> | <u>\$ (51,257,443)</u> |

As would be expected for a water/sewer authority, the largest portion of the City Division's assets are Capital Assets and Other Assets (77.7%). These categories reflect the Authority's total investment in the leased Concession assets and the purchased rolling stock and other fleet of vehicles, less any depreciation and amortization.

- Current and noncurrent assets other than capital assets and other assets in 2020 increased \$3,867,687, or 5.6%. This increase was primarily due to an increase in the amount of unrestricted cash which was partially offset by an increase in net receivable balances offset.
- Capital assets, net and other assets, net in 2020 increased by \$10,568,334, which was the net increase after considering new acquisitions offset by depreciation and amortization of \$6,117,396.
- Current liabilities in 2020 increased by \$827,611 from 2019. This increase was primarily due to an increase in trade payables along with a higher current portion of long-term debt.
- Noncurrent liabilities in 2020 increased by \$43,108,253 from 2019. The increase was Primarily due to additional bond liability as a result of a major refinancing in 2020.
- Current and noncurrent assets other than capital assets and other assets in 2019 increased \$2,082,700, or 3.1%. This increase was primarily due to an increase in the amount of unrestricted cash along with an increase in net receivables balances offset by a reduction in unrestricted balances.
- Capital assets, net and other assets, net in 2019 decreased by \$2,675,646, which was the net decrease after considering new acquisitions offset by depreciation and amortization of \$5,835,507.
- Current liabilities in 2019 decreased by \$676,708 from 2018. This decrease was due to a reduction in trade payables with a partial offset from a higher current portion of long-term debt.
- Noncurrent liabilities in 2019 increased by \$6,850,611 from 2018. This increase was primarily due to accretion on the Series B bonds and the service concession payable along with an increase in the net pension liability.

**Net Position (Suburban Division):**

A three-year condensed summary of the Authority's Suburban Division Statements of Net Position as of December 31 of each year is presented as follows:

|                                      | <b><u>2020</u></b>    | <b><u>2019</u></b>    | <b><u>2018</u></b>    |
|--------------------------------------|-----------------------|-----------------------|-----------------------|
| Current assets, unrestricted         | \$30,641,290          | \$ 33,850,702         | \$ 39,231,844         |
| Non-current Assets:                  |                       |                       |                       |
| Restricted                           | 6,652,373             | 8,149,486             | 14,613,449            |
| Capital assets, net                  | 207,705,204           | 213,588,122           | 200,602,241           |
| Other assets, net                    | <u>12,641,526</u>     | <u>2,859,600</u>      | <u>2,720,567</u>      |
| Total Assets                         | 257,640,393           | 258,447,910           | 257,168,101           |
| Deferred Outflows                    | <u>824,076</u>        | <u>1,102,806</u>      | <u>1,258,552</u>      |
| Total Assets & Deferred Outflows     | <u>\$ 258,464,469</u> | <u>\$ 259,550,716</u> | <u>\$ 258,426,653</u> |
| Current liabilities                  | \$ 7,288,370          | \$ 8,529,904          | \$ 6,706,997          |
| Non-current liabilities              | <u>46,566,256</u>     | <u>50,401,635</u>     | <u>52,873,270</u>     |
| Total Liabilities                    | 53,854,626            | 58,931,539            | 59,580,267            |
| Deferred Inflows                     | <u>928,611</u>        | <u>119,297</u>        | <u>543,267</u>        |
| Total Liabilities & Deferred Inflows | <u>\$ 54,783,237</u>  | <u>\$ 59,050,836</u>  | <u>\$ 60,123,534</u>  |
| Net position:                        |                       |                       |                       |
| Net Investment in Capital Assets     | \$ 163,078,413        | \$ 167,952,249        | \$ 158,792,779        |
| Restricted                           | 1,407,066             | 1,043,094             | 1,380,654             |
| Unrestricted                         | <u>39,195,753</u>     | <u>31,504,537</u>     | <u>38,129,686</u>     |
| Total Net Position                   | <u>\$ 203,681,232</u> | <u>\$ 200,499,880</u> | <u>\$ 198,303,119</u> |

Again, as would be expected for a water/sewer authority, the largest portion of the Suburban Division's total assets & deferred outflows are Capital Assets and Other Assets (85.3%). These categories reflect the Authority's total investment in the capital and other assets (e.g. infrastructure, buildings, machinery and equipment), less any depreciation and amortization.

- Current, and noncurrent assets other than capital assets and other assets in 2020 decreased \$4,706,525, or 11.2%. This decrease was primarily due to a reduction in restricted and unrestricted cash balances.
- Capital assets, net and other assets, net in 2020 increased \$3,899,008 or 1.8%. This was due to capital spending on projects.
- Current liabilities in 2020 decreased \$1,241,534 or 14.6% from 2019. This decrease was primarily due to decreases in trade payables.
- Noncurrent liabilities in 2020 decreased \$3,835,379 or 7.6% from 2019, as a result of a reduction in debt related to 2020 principal repayments along with a reduction in net pension liability.
- Current, and noncurrent assets other than capital assets and other assets in 2019 decreased \$11,845,105, or 22.0%. This decrease was primarily due to reduction in net receivable balances and reduced restricted balances partially offset by increased unrestricted cash balances.
- Capital assets, net and other assets, net in 2019 increased \$13,124,914 or 6.5%. This was due to capital spending on projects.
- Current liabilities in 2019 increased \$1,822,907 or 27.2% from 2018. This increase was primarily due to increases in trade and construction payables along with higher liabilities on developer projects and a higher current portion of long-term debt.
- Noncurrent liabilities in 2019 decreased \$2,471,635 or 4.7% from 2018, as a result of a reduction in debt related to 2019 principal repayments.

**Changes in Net Position (City Division):**

A summary of the Authority's City Division Statement of Revenue, Expenses and Changes in Net Position for the years ended December 31 are presented as follows:

| <b>Operating Revenues:</b>                        | <b>2020</b>            | <b>2019</b>            | <b>2018</b>            |
|---------------------------------------------------|------------------------|------------------------|------------------------|
| User Charges                                      | \$ 37,748,826          | \$ 36,524,337          | \$ 35,747,627          |
| Other Income & Rent                               | <u>234,849</u>         | <u>551,525</u>         | <u>396,813</u>         |
| Total Operating Revenues                          | <u>37,983,675</u>      | <u>37,075,862</u>      | <u>36,144,440</u>      |
| <b>Operating Expenses:</b>                        |                        |                        |                        |
| Salaries, Benefits & Administrative               | 12,495,272             | 13,304,766             | 11,597,632             |
| Utilities, Supplies & Services                    | 5,166,900              | 4,841,867              | 5,603,613              |
| Treatment & Transportation                        | 11,926                 | 9,547                  | 9,827                  |
| Depreciation & Amortization                       | <u>6,117,396</u>       | <u>5,835,507</u>       | <u>5,864,433</u>       |
| Total Operating Expenses                          | <u>23,791,494</u>      | <u>23,991,687</u>      | <u>23,075,504</u>      |
| Operating Income                                  | <u>14,192,181</u>      | <u>13,084,175</u>      | <u>13,068,936</u>      |
| <b>Non-Operating Revenues (Expenses):</b>         |                        |                        |                        |
| Tapping & Capital Recovery Fees                   | 1,901,863              | 1,707,128              | 1,383,876              |
| Meter Sales                                       | 24,595                 | 22,466                 | 8,397                  |
| Inspection, Plan Reviews & Project Reimbursements | 841,585                | 448,402                | 912,225                |
| Interest Earnings                                 | 162,075                | 1,193,618              | 1,047,630              |
| Other Income                                      | 51,620                 | 59,659                 | 65,842                 |
| Interest Expense                                  | (17,257,071)           | (19,386,584)           | (18,810,413)           |
| Other Expense                                     | <u>(4,206,199)</u>     | <u>(1,259,785)</u>     | <u>(3,810,645)</u>     |
| Total Net Non-Operating Revenues (Expenses)       | <u>(18,481,532)</u>    | <u>(17,215,096)</u>    | <u>(19,203,088)</u>    |
| Increase (Decrease) in Net Position               | <u>(4,289,351)</u>     | <u>(4,130,921)</u>     | <u>(6,134,152)</u>     |
| Beginning Net Position, as restated               | <u>(55,388,364)</u>    | <u>(51,257,443)</u>    | <u>(45,123,291)</u>    |
| Ending Net Position                               | <u>\$ (59,677,715)</u> | <u>\$ (55,388,364)</u> | <u>\$ (51,257,443)</u> |

Year over year changes are as follows:

- Operating Revenue for 2020 for the City Division was \$37,983,675, compared to \$37,075,862 in 2019 with most of the increase attributable to a rate increase, and higher Signatory Revenues.
- Operating expenses, net of depreciation and amortization were \$17,674,098 in 2020 compared to \$18,156,180 in 2019, a decrease of \$482,082. The decrease was due to lower pension costs and lower G&A.
- Operating Income, net of depreciation and amortization was \$20,309,577 in 2020 compared to \$18,919,682 in 2019, an increase of \$1,389,895 that was driven mostly by the reduction in operating expenses and higher operating revenues.
- Operating Revenue for 2019 for the City Division was \$37,075,862, compared to \$36,144,440 in 2018 with most of the increase attributable to a rate increase, and higher Signatory Revenues.
- Operating expenses, net of depreciation and amortization were \$18,156,180 in 2019 compared to \$17,211,071 in 2018, an increase of \$945,109. The increase was due to inflationary effects on employee cost and purchased goods and services along with higher spending on outside services.
- Operating Income, net of depreciation and amortization was \$18,919,682 in 2019 compared to \$18,933,669, a decrease of \$13,687 that was driven mostly by the increase in operating expenses with a partial offset from higher operating revenues.

It should be noted that interest expense of \$17,257,071 in 2020 is comprised of actual interest paid (\$10,853,413), accretion (\$3,574,904), amortization of the SCA Payable (\$2,366,077), change in accrued interest payable (-\$143,690) amortization of bond discount (\$266,395) and deferred refunding loss of (\$339,972).

The City Division's Annual Debt Service Coverage Ratio exceeded the indenture requirement of 1.20. The ratio for all years of operation has exceeded 1.20.

#### **Changes in net position (Suburban Division):**

A condensed summary of the Authority's Suburban Division Statements of Revenues, Expenses and Changes in Net Position for the years ended December 31 is presented below:

|                                                                  | <u><b>2020</b></u>    | <u><b>2019</b></u>    | <u><b>2018</b></u>    |
|------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|
| <b>Operating Revenues:</b>                                       |                       |                       |                       |
| User Charges                                                     | \$ 26,814,736         | \$ 23,620,272         | \$ 22,929,861         |
| Other Income & Rent                                              | <u>226,366</u>        | <u>392,325</u>        | <u>433,453</u>        |
| Total Operating Revenues                                         | <u>27,041,102</u>     | <u>24,012,597</u>     | <u>23,363,314</u>     |
| <b>Operating Expenses:</b>                                       |                       |                       |                       |
| Salaries, Benefits & Administrative                              | 4,246,518             | 3,712,170             | 3,238,214             |
| Utilities, Supplies & Services                                   | 11,130,326            | 10,505,790            | 9,803,253             |
| Treatment & Transportation                                       | 2,906,958             | 3,385,568             | 3,543,753             |
| Depreciation & Amortization                                      | <u>8,886,146</u>      | <u>7,173,251</u>      | <u>7,269,156</u>      |
| Total Operating Expenses                                         | <u>27,169,948</u>     | <u>24,776,779</u>     | <u>23,854,376</u>     |
| Operating Income/(Loss)                                          | <u>(128,846)</u>      | <u>(764,182)</u>      | <u>(491,062)</u>      |
| <b>Non-Operating Revenues (Expenses):</b>                        |                       |                       |                       |
| Tapping & Capital Recovery Fees                                  | \$ 4,040,340          | \$ 1,992,524          | \$ 744,950            |
| Meter Sales                                                      | 77,685                | 94,763                | 85,259                |
| Inspection, Plan Reviews & Project Reimbursements                | 326,918               | 435,705               | 220,921               |
| Interest Earnings                                                | 278,884               | 527,047               | 477,866               |
| Other Income                                                     | 111,702               | 94,639                | 87,661                |
| Interest Expense                                                 | (1,642,483)           | (1,758,142)           | ( 1,773,659)          |
| Other Expense                                                    | <u>(100,261)</u>      | <u>(157,012)</u>      | <u>(110,697)</u>      |
| Total Net Non-Operating Revenues (Expenses)                      | <u>\$ 3,092,785</u>   | <u>\$ 1,229,524</u>   | <u>\$ (267,699)</u>   |
| Increase (Decrease) in Net Position before Capital Contributions | <u>\$ 2,963,939</u>   | <u>\$ 465,342</u>     | <u>\$ (758,761)</u>   |
| <b>Capital Contributions:</b>                                    |                       |                       |                       |
| Grants                                                           | -                     | -                     | 212,688               |
| Capital Assets Provided by Developers & Other                    | <u>217,413</u>        | <u>1,731,419</u>      | <u>1,616,004</u>      |
| Total Capital contributions                                      | <u>217,413</u>        | <u>1,731,419</u>      | <u>1,828,692</u>      |
| Increase (Decrease) in Net Position                              | <u>3,181,352</u>      | <u>2,196,761</u>      | <u>1,069,931</u>      |
| Beginning Net Position, as restated                              | <u>\$ 200,499,880</u> | <u>\$ 198,303,119</u> | <u>\$ 197,233,188</u> |
| Ending Net Position                                              | <u>\$ 203,681,232</u> | <u>\$ 200,499,880</u> | <u>\$ 198,303,119</u> |

Changes in the Statements of Revenues, Expenses and Changes in Net Position were as follows:

- Operating Revenue in 2020 for the Suburban Division was \$27,041,102 compared to \$24,012,597 in 2019 and 23,363,314 in 2018. In 2020 the Suburban Division's Water Fund contributed \$10,866,675 in revenue compared to \$9,930,541 in 2019 and \$9,348,885 in 2018, while the Wastewater Fund added another \$16,174,427 in 2020 compared to \$14,082,056 in 2019, and \$14,014,429 in 2018. The primary driver for the increase in Wastewater Fund revenue was higher flows and loads.
- As an indication of the new growth in the Suburban Division territory, the following table illustrates the three-year trend of Water System connections and Wastewater capacity sales to new and expanding users.

|                                              | <u>2020</u>    | <u>2019</u>    | <u>2018</u>   |
|----------------------------------------------|----------------|----------------|---------------|
| <b>Water System # of Units Connected:</b>    |                |                |               |
| Single Family Detached                       | 90             | 100            | 114           |
| Single Family Attached (Townhouses)          | 90             | 97             | 71            |
| Apartments and Mobile Homes                  | 140            | 0              | 709           |
| Commercial                                   | <u>18</u>      | <u>9</u>       | <u>14</u>     |
| Total Water System Connections               | <u>338</u>     | <u>206</u>     | <u>908</u>    |
| <b>Wastewater Capacity Sales in Gallons:</b> |                |                |               |
| Residential                                  | 49,952         | 159,059        | 43,708        |
| Commercial                                   | <u>244,921</u> | <u>72,178</u>  | <u>34,803</u> |
| Total Sales                                  | <u>294,873</u> | <u>231,237</u> | <u>78,511</u> |

The table reflects an increase in new Water System connections for both detached and attached single family homes, apartments, and commercial properties. Wastewater capacity sales trended higher in 2020 primarily as a result of residential and commercial development in the Western Lehigh sewer area.

- The Suburban Water System purchased 7 million gallons per day (mgd) from the interconnection with its City Division in 2019. The purchase obligation remains at 7 mgd in 2020.
- The Suburban Division's Annual Water System Operating Coverage, which is determined by dividing net operating revenues by annual debt service, was above the 110% required by the Suburban Water Bond Indenture.

## Changes in Net Position (Suburban Division Summary):

A summary of the Authority's Statement of Changes in Net Position Suburban Division is presented as follows:

### Statement of Changes in Net Position Year Ended December 31, 2020

|                           | <u>Beginning<br/>Balance</u> | <u>Increased /<br/>(Decreased)</u> | <u>Ending<br/>Balance</u> |
|---------------------------|------------------------------|------------------------------------|---------------------------|
| Net Investment in Capital |                              |                                    |                           |
| Assets                    | \$ 167,952,249               | \$ (4,873,836)                     | \$ 163,078,413            |
| Restricted Net Position   | 1,043,094                    | 363,972                            | 1,407,066                 |
| Unrestricted Net Position | <u>31,504,537</u>            | <u>7,691,216</u>                   | <u>39,195,753</u>         |
| Total Net Position        | <u>\$ 200,499,880</u>        | <u>\$ 3,181,352</u>                | <u>\$ 203,681,232</u>     |

## Other Selected Information:

|                                                  | <u>2020</u>  | <u>2019</u>  | <u>2018</u>  |
|--------------------------------------------------|--------------|--------------|--------------|
| <b>Equivalent Fulltime Employees at Year-End</b> | 157          | 162          | 160          |
| <b>Units Served:</b>                             |              |              |              |
| <u>Suburban Division:</u>                        |              |              |              |
| Water – Residential                              | 22,522       | 22,166       | 22,003       |
| Water – Industrial & Commercial                  | <u>760</u>   | <u>735</u>   | <u>734</u>   |
| Total Water Billable Units                       | 23,282       | 22,901       | 22,737       |
| Wastewater Collection – Residential              | 2,820        | 2,763        | 2,696        |
| Wastewater Collection – Commercial               | <u>128</u>   | <u>127</u>   | <u>127</u>   |
| Total Wastewater Billable Units                  | 2,948        | 2,890        | 2,823        |
| <u>City Division:</u>                            |              |              |              |
| Water:                                           |              |              |              |
| Water – Residential                              | 41,742       | 41,377       | 41,198       |
| Water – Industrial & Commercial                  | <u>5,179</u> | <u>5,146</u> | <u>5,139</u> |
| Total Water Billable Units                       | 46,921       | 46,523       | 46,337       |
| Wastewater:                                      |              |              |              |
| Wastewater – Residential                         | 41,767       | 41,347       | 41,176       |
| Wastewater – Commercial                          | <u>5,140</u> | <u>5,136</u> | <u>5,129</u> |
| Total Wastewater Billable Units                  | 46,907       | 46,483       | 46,305       |
| <b>Customers:</b>                                | <u>2020</u>  | <u>2019</u>  | <u>2018</u>  |
| <u>Suburban Division:</u>                        |              |              |              |
| Water – Residential                              | 19,883       | 19,694       | 19,501       |
| Water – Industrial & Commercial                  | <u>756</u>   | <u>731</u>   | <u>730</u>   |
| Total Water Customers                            | 20,639       | 20,425       | 20,231       |
| Wastewater Collection – Residential              | 2,460        | 2,403        | 2,336        |
| Wastewater Collection – Commercial               | <u>124</u>   | <u>123</u>   | <u>123</u>   |
| Total Wastewater Customers                       | 2,584        | 2,526        | 2,459        |
| <u>City Division:</u>                            |              |              |              |
| Water – Residential                              | 30,408       | 30,392       | 30,368       |
| Water – Industrial & Commercial                  | <u>3,029</u> | <u>3,023</u> | <u>3,021</u> |
| Total Water Customers                            | 33,437       | 33,415       | 33,389       |



|                                     | <u>2020</u>  | <u>2019</u>  | <u>2018</u>  |
|-------------------------------------|--------------|--------------|--------------|
| Wastewater Collection – Residential | 30,391       | 30,347       | 30,346       |
| Wastewater Collection – Commercial  | <u>3,014</u> | <u>3,010</u> | <u>3,011</u> |
| Total Wastewater Customers          | 33,405       | 33,357       | 33,357       |

#### **Ratios**

##### **Suburban Division:**

##### **Ratio of Operating Revenue to:**

|                                                        |      |      |      |
|--------------------------------------------------------|------|------|------|
| Operating Expenses, Net of Depreciation & Amortization | 1.48 | 1.36 | 1.41 |
| Total Assets                                           | .10  | 0.09 | 0.11 |
| Total Net Position                                     | .13  | 0.12 | 0.12 |

##### **Debt Related Ratios:**

|                                                    |      |      |      |
|----------------------------------------------------|------|------|------|
| Net Position to Long-Term Debt                     | 4.37 | 3.98 | 3.75 |
| Current Ratio (Current Assets/Current Liabilities) | 4.20 | 3.97 | 5.85 |

##### **City Division:**

##### **Ratio of Operating Revenue to:**

|                                                        |      |      |      |
|--------------------------------------------------------|------|------|------|
| Operating Expenses, Net of Depreciation & Amortization | 2.15 | 2.04 | 2.10 |
| Total Assets (Annualized)                              | .12  | 0.12 | 0.11 |
| Total Net Position                                     | N/A  | N/A  | N/A  |

##### **Debt Related Ratios:**

|                                                    |      |      |      |
|----------------------------------------------------|------|------|------|
| Net Position to Long-Term Debt                     | N/A  | N/A  | N/A  |
| Current Ratio (Current Assets/Current Liabilities) | 2.51 | 3.07 | 1.84 |

#### **Capital Contributions**

The Authority received no grants related to construction in 2020 and had none last year. Another major source of capital contributions is derived from developer installed Systems donated to the Authority \$217,413 was received in 2020 compared to \$1,731,419 in 2019.

#### **Capital Assets & Service Concession Arrangement:**

The largest investment in the Authority's history occurred on August 7, 2013 with the financing of the acquisition of the City of Allentown's Water and Sewer System through a 50-year lease concession. The Authority's Net Capital Investment in intangible and other assets increased from \$241,126,076 in 2019 to \$251,926,662 in 2020, and the City Divisions net capital assets decreased from \$835,697 in 2019 to \$645,988 in 2020. More detail on the Service Concession Arrangement can be found in Note 6 to the financial statements.

Net capital assets in the Suburban Systems decreased by \$5,882,918. This decrease can be attributed to increased accumulated depreciation which more than offset capital projects executed in 2020. More detail on the Authority's capital assets can be found in Note 5 to the financial statements.

#### **Debt Administration:**

In 2013 the Authority issued \$307,683,599 million in three series of bonds to fund the upfront payment to the City of Allentown, capital improvements, create various reserves necessary under the Indenture and to fund financing and other transaction costs related to the Concession. Increases to debt in 2018 consisted of issuance of the Series 2018 Bond and accreted interest on the 2013 Series B Capital Appreciation Revenue Bonds. The Series C Bonds were refinanced in 2018 and a portion of the Series A bonds were refinanced in 2020.

In 2020 the Authority issued City Division Water and Sewer Revenue Bond Series 2020 and Series A of 2020 in the amounts of \$161,035,000 and \$18,150,000, respectively. The Series 2020 Bonds were issued to advance refund a portion of the City Divisions Series 2013 A Bonds, fund a debt service reserve, and pay the costs and expenses of issuing the Bonds. The Series A 2020 Bonds were issued to currently refund the City Divisions Series 2018 Bonds fund a debt service reserve and pay the costs and expenses of issuing the Bonds.

See note 8 of the Notes to the Financial Statements for further detail on outstanding debt.

#### **Economic Factors and Rates:**

##### **Suburban Division:**

From the Suburban Division perspective, the Authority elected to increase water rates in 2020 to cover the funding of capital projects. The Suburban Division's rates continue to be among the lowest in the Lehigh Valley region.

With higher treatment and transportation costs from the former City of Allentown water and wastewater departments and significant maintenance required on the Authority's Interceptor System, annual Wastewater rate increases have been enacted since 2007. The last wastewater collection system rate increase was on January 1, 2013, a 5% increase.

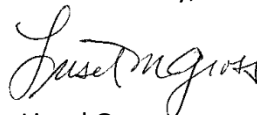
##### **City Division:**

City Division rates increased by 4.1% in January 2020 per the Concession agreement. An additional increase of approximately 15% was implemented October 1, 2020 as a result of an amendment to the agreement, which included a multi-year phase-in of higher rates required to support the mutual goals of the Authority and the City of Allentown related to revenue capacity and operational sustainability of the system.

#### **Contacting the Authority's Financial Management:**

This financial report is designed to provide our customers, creditors, and funding agencies with a general overview of the Authority's finances and to show the Authority's accountability for the money it receives. If you have any questions about this report or need additional information, contact Edward C. Klein, the Lehigh County Authority's Chief Financial Officer, P.O. Box 3348, Allentown, PA 18106.

Submitted by,



Liesel Gross

Chief Executive Officer



Edward C. Klein

Chief Financial Officer

LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA

STATEMENTS OF NET POSITION  
December 31, 2020 AND 2019

- ASSETS AND DEFERRED OUTFLOWS OF RESOURCES -

|                                                        | Suburban       |                | Suburban        |                | City Division  |                | Total          |                |
|--------------------------------------------------------|----------------|----------------|-----------------|----------------|----------------|----------------|----------------|----------------|
|                                                        | Water Fund     |                | Wastewater Fund |                | Fund           |                |                |                |
|                                                        | 2020           | 2019           | 2020            | 2019           | 2020           | 2019           | 2020           | 2019           |
| <b>Current Assets:</b>                                 |                |                |                 |                |                |                |                |                |
| Cash and Cash Equivalents (Note 2)                     | \$ 7,243,472   | \$ 9,242,611   | \$ 7,455,004    | \$ 7,057,187   | \$ 1,548,255   | \$ 3,783,046   | \$ 16,246,731  | \$ 20,082,844  |
| Certificates of Deposit (Note 2)                       | 2,497,825      | 3,136,930      | 6,387,746       | 7,757,276      | -              | -              | 8,885,571      | 10,894,206     |
| Accounts Receivable:                                   |                |                |                 |                |                |                |                |                |
| Customers                                              | 2,129,490      | 1,760,403      | 3,286,041       | 3,188,238      | 8,081,987      | 6,542,331      | 13,497,518     | 11,490,972     |
| Financing Contracts (Note 4)                           | -              | -              | 194,495         | 323,767        | -              | -              | 194,495        | 323,767        |
| Others                                                 | 391,974        | 280,007        | 646,233         | 675,091        | 3,301,267      | 2,941,050      | 4,339,474      | 3,896,188      |
| Due from (to) Other Funds (Note 9)                     | 1,619,206      | 1,599,692      | (1,582,995)     | (1,570,176)    | (36,211)       | (29,516)       | -              | -              |
| Inventory                                              | 24,597         | 36,074         | -               | -              | -              | -              | 24,597         | 36,074         |
| Accrued Interest Receivable                            | 1,614          | 6,411          | 22,588          | 39,898         | 491            | 56,425         | 24,693         | 102,734        |
| Prepaid Expenses                                       | 195,918        | 185,993        | 128,082         | 131,300        | 408,858        | 414,562        | 732,858        | 731,855        |
| Total Current Assets                                   | 14,104,096     | 16,248,121     | 16,537,194      | 17,602,581     | 13,304,647     | 13,707,938     | 43,945,937     | 47,558,640     |
| <b>Noncurrent Assets:</b>                              |                |                |                 |                |                |                |                |                |
| <b>Restricted:</b>                                     |                |                |                 |                |                |                |                |                |
| Cash and Cash Equivalents (Note 2)                     | 1,858,493      | 3,575,275      | 338,204         | 337,932        | 59,947,285     | 55,676,307     | 62,143,982     | 59,589,514     |
| Certificates of Deposit (Note 2)                       | -              | 25,527         | -               | -              | -              | -              | -              | 25,527         |
| Investment U.S. Treasury Obligations (Note 2)          | 244,924        | -              | -               | -              | -              | -              | 244,924        | -              |
| Developer Escrow Deposit (Note 3)                      | 4,210,752      | 4,210,752      | -               | -              | -              | -              | 4,210,752      | 4,210,752      |
| Total Restricted Assets                                | 6,314,169      | 7,811,554      | 338,204         | 337,932        | 59,947,285     | 55,676,307     | 66,599,658     | 63,825,793     |
| <b>Capital Assets: (Notes 1 and 5)</b>                 |                |                |                 |                |                |                |                |                |
| Land                                                   | 2,232,552      | 2,114,884      | 1,896,050       | 1,888,430      | -              | -              | 4,128,602      | 4,003,314      |
| Construction in progress                               | 7,143,221      | 12,504,370     | 8,665,170       | 18,974,421     | -              | -              | 15,808,391     | 31,478,791     |
| Wells & Reservoirs                                     | 9,891,800      | 9,709,252      | 3,494,643       | 3,494,643      | -              | -              | 13,386,443     | 13,203,895     |
| Transmission & Distribution Mains                      | 85,446,377     | 80,498,411     | -               | -              | -              | -              | 85,446,377     | 80,498,411     |
| Services & Hydrants                                    | 17,672,546     | 17,571,410     | -               | -              | -              | -              | 17,672,546     | 17,571,410     |
| Interceptor & Collector Systems                        | -              | -              | 38,265,579      | 38,259,619     | -              | -              | 38,265,579     | 38,259,619     |
| Building Structure & Appurtenances                     | 27,139,327     | 23,797,378     | 61,301,596      | 55,828,047     | -              | -              | 88,440,923     | 79,625,425     |
| Metering System                                        | 10,800,051     | 10,672,043     | 429,778         | 429,778        | -              | -              | 11,229,829     | 11,101,821     |
| Equipment and Furnishings                              | 8,689,068      | 7,769,506      | 23,175,502      | 23,175,502     | -              | -              | 35,552,818     | 34,214,287     |
| Capacity                                               | 1,207,901      | 1,207,901      | 877,877         | 953,831        | 3,257,879      | 3,268,879      | 2,085,778      | 2,161,732      |
| Less accumulated depreciation                          | (45,892,072)   | (43,055,279)   | (55,162,131)    | (52,206,425)   | (2,611,891)    | (2,433,182)    | (103,666,094)  | (97,694,886)   |
| Total Capital Assets                                   | 124,330,771    | 122,789,876    | 83,374,433      | 90,798,246     | 645,988        | 835,697        | 208,351,192    | 214,423,819    |
| <b>Other Assets:</b>                                   |                |                |                 |                |                |                |                |                |
| Long-Term Portion of Receivables -                     |                |                |                 |                |                |                |                |                |
| Financing Contracts (Note 4)                           | -              | -              | 1,330,142       | 1,532,516      | -              | -              | 1,330,142      | 1,532,516      |
| Intangible Service Concession                          | -              | -              | -               | -              | -              | -              | -              | -              |
| Arrangement (Note 6)                                   | -              | -              | -               | -              | 251,926,662    | 241,126,076    | 251,926,662    | 241,126,076    |
| OPEB Asset (Note 12)                                   | 1,389,099      | 1,244,053      | -               | -              | -              | -              | 1,389,099      | 1,244,053      |
| Other Assets                                           | -              | -              | -               | -              | 3,174,440      | 3,216,983      | 3,174,440      | 3,216,983      |
| Facilities Planning Costs                              | 59,838         | 24,442         | 9,862,447       | 58,589         | -              | -              | 9,922,285      | 83,031         |
| (Net of Accumulated Amortization) (Note 7)             |                |                |                 |                |                |                |                |                |
| Total Other Assets                                     | 1,448,937      | 1,268,495      | 11,192,589      | 1,591,105      | 255,101,102    | 244,343,059    | 267,742,628    | 247,202,659    |
| Total Noncurrent Assets                                | 132,093,877    | 131,869,925    | 94,905,226      | 92,727,283     | 315,694,375    | 300,855,063    | 542,693,478    | 525,452,271    |
| <b>Total Assets</b>                                    | 146,197,973    | 148,118,046    | 111,442,420     | 110,329,864    | 328,999,022    | 314,563,001    | 586,639,415    | 573,010,911    |
| <b>Deferred Outflows of Resources</b>                  |                |                |                 |                |                |                |                |                |
| Pensions                                               | 533,395        | 679,620        | 268,506         | 342,115        | 1,980,544      | 2,523,498      | 2,782,445      | 3,545,233      |
| OPEB                                                   | 22,175         | 56,117         | -               | -              | 989,255        | 662,093        | 1,011,430      | 718,210        |
| Refunding Loss on Bonds                                | -              | 24,954         | -               | -              | 27,452,737     | -              | 27,452,737     | 24,954         |
| <b>Total Deferred Outflows</b>                         | 555,570        | 760,691        | 268,506         | 342,115        | 30,422,536     | 3,185,591      | 31,246,612     | 4,288,397      |
| <b>Total Assets and Deferred Outflows of Resources</b> | \$ 146,753,543 | \$ 148,878,737 | \$ 111,710,926  | \$ 110,671,979 | \$ 359,421,558 | \$ 317,748,592 | \$ 617,886,027 | \$ 577,299,308 |

This statement is continued on the next page

The accompanying notes are an integral part of the financial statements.

LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA

STATEMENTS OF NET POSITION (CONTINUED)  
December 31, 2020 AND 2019

- LIABILITIES AND NET POSITION -

|                                                                          | Suburban<br>Water Fund |                | Suburban<br>Wastewater Fund |                | City Division<br>Fund |                | Total          |                |
|--------------------------------------------------------------------------|------------------------|----------------|-----------------------------|----------------|-----------------------|----------------|----------------|----------------|
|                                                                          | 2020                   | 2019           | 2020                        | 2019           | 2020                  | 2019           | 2020           | 2019           |
| <b>Current Liabilities:</b>                                              |                        |                |                             |                |                       |                |                |                |
| Accounts Payable - Trade                                                 | \$ 1,258,966           | \$ 1,374,709   | \$ 1,840,344                | \$ 2,819,043   | \$ 1,507,525          | \$ 997,972     | \$ 4,606,835   | \$ 5,191,724   |
| Accounts Payable - Capital                                               | 269,149                | 246,336        | 301,306                     | 312,403        | 60,850                | 10,714         | 631,305        | 569,453        |
| Accrued Interest Payable                                                 | 228,440                | 233,600        | 3,346                       | 3,346          | 962,090               | 1,105,780      | 1,193,876      | 1,342,726      |
| Notes Payable (Note 8)                                                   | 253,032                | 248,378        | 434,775                     | 427,162        | -                     | -              | 687,807        | 675,540        |
| Revenue Bonds Payable (Note 8)                                           | 1,848,653              | 1,832,994      | 114,595                     | 114,905        | 2,514,642             | 1,837,406      | 4,477,890      | 3,785,305      |
| Developer Deposits and Other (Note 10)                                   | 455,865                | 554,977        | 18,204                      | 2,950          | 24,877                | 19,805         | 498,946        | 577,732        |
| Accrued Payroll & Other                                                  | 170,102                | 226,234        | 91,593                      | 132,867        | 224,245               | 494,941        | 485,940        | 854,042        |
| Total Current Liabilities                                                | 4,484,207              | 4,717,228      | 2,804,163                   | 3,812,676      | 5,294,229             | 4,466,618      | 12,582,599     | 12,996,522     |
| <b>Noncurrent Liabilities:</b>                                           |                        |                |                             |                |                       |                |                |                |
| Developer Deposits and Other (Note 10)                                   | 4,210,752              | 4,210,752      | 3,810                       | 19,064         | -                     | 10,000         | 4,214,562      | 4,239,816      |
| SCA Payable (Note 6)                                                     | -                      | -              | -                           | -              | 64,261,077            | 47,694,490     | 64,261,077     | 47,694,490     |
| Notes Payable (Note 8)                                                   | 1,985,076              | 2,238,109      | 5,167,681                   | 5,602,455      | -                     | -              | 7,152,757      | 7,840,564      |
| OPEB Liability                                                           | -                      | -              | -                           | -              | 3,825,143             | 2,944,923      | 3,825,143      | 2,944,923      |
| Net Pension Liability                                                    | 187,303                | 956,221        | 94,286                      | 481,353        | 695,473               | 3,550,538      | 977,062        | 4,988,112      |
| Revenue Bonds Payable                                                    | 33,664,851             | 35,526,589     | 1,252,497                   | 1,367,092      | 342,996,898           | 314,470,387    | 377,914,246    | 351,364,068    |
| (Net of Premium/Discount) (Note 8)                                       | 40,047,982             | 42,931,671     | 6,518,274                   | 7,469,964      | 411,778,591           | 368,670,338    | 458,344,847    | 419,071,973    |
| Total Noncurrent Liabilities                                             | 44,532,189             | 47,648,899     | 9,322,437                   | 11,282,640     | 417,072,820           | 373,136,956    | 470,927,446    | 432,068,495    |
| <b>Total Liabilities</b>                                                 |                        |                |                             |                |                       |                |                |                |
|                                                                          |                        |                |                             |                |                       |                |                |                |
| <b>Deferred Inflows of Resources</b>                                     |                        |                |                             |                |                       |                |                |                |
| Pensions                                                                 | 545,758                | -              | 274,730                     | -              | 2,026,453             | -              | 2,846,941      | -              |
| OPEB                                                                     | 108,123                | 119,297        | -                           | -              | -                     | -              | 108,123        | 119,297        |
| <b>Total Deferred Inflows</b>                                            | 653,881                | 119,297        | 274,730                     | -              | 2,026,453             | -              | 2,955,064      | 119,297        |
| <b>Net Position: (Notes 1 and 13)</b>                                    |                        |                |                             |                |                       |                |                |                |
| Net Investment in Capital Assets                                         | 86,673,528             | 84,665,617     | 76,404,885                  | 83,286,632     | 645,988               | 835,697        | 163,724,401    | 168,787,946    |
| Restricted for Debt Service                                              | 1,407,066              | 1,403,094      | -                           | -              | -                     | -              | 1,407,066      | 1,403,094      |
| Unrestricted                                                             | 13,486,879             | 15,041,830     | 25,708,874                  | 16,102,707     | (60,323,703)          | (56,224,061)   | (21,127,950)   | (25,079,524)   |
| Total Net Position                                                       | 101,567,473            | 101,110,541    | 102,113,759                 | 99,389,339     | (59,677,715)          | (55,388,364)   | 144,003,517    | 145,111,516    |
| <b>Total Liabilities, Deferred Inflows of Resources and Net Position</b> | \$ 146,753,543         | \$ 148,878,737 | \$ 111,710,926              | \$ 110,671,979 | \$ 359,421,558        | \$ 317,748,592 | \$ 617,886,027 | \$ 577,299,308 |

The accompanying notes are an integral part of the financial statements.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION  
For the Years Ended December 31, 2020 and 2019**

|                                                                  | Suburban<br>Water Fund |                | Suburban<br>Wastewater Fund |               | City Division<br>Fund |                 | Total          |                |
|------------------------------------------------------------------|------------------------|----------------|-----------------------------|---------------|-----------------------|-----------------|----------------|----------------|
|                                                                  | 2020                   | 2019           | 2020                        | 2019          | 2020                  | 2019            | 2020           | 2019           |
| <b>OPERATING REVENUES:</b>                                       |                        |                |                             |               |                       |                 |                |                |
| Charges for Services                                             | \$ 10,834,135          | \$ 9,780,116   | \$ 15,980,601               | \$ 13,840,156 | \$ 37,748,826         | \$ 36,524,337   | \$ 64,563,562  | \$ 60,144,609  |
| Rent                                                             | -                      | 125,253        | -                           | -             | -                     | -               | -              | 125,253        |
| Other Income                                                     | 32,540                 | 25,172         | 193,826                     | 241,900       | 234,849               | 551,525         | 461,215        | 818,597        |
| Total Operating Revenues                                         | 10,866,675             | 9,930,541      | 16,174,427                  | 14,082,056    | 37,983,675            | 37,075,862      | 65,024,777     | 61,088,459     |
| <b>OPERATING EXPENSES</b>                                        |                        |                |                             |               |                       |                 |                |                |
| Salaries and Wages                                               | 1,697,918              | 1,540,532      | 800,670                     | 815,017       | 7,498,713             | 7,493,744       | 9,997,301      | 9,849,293      |
| Employee Benefits                                                | 878,994                | 738,001        | 491,429                     | 449,673       | 3,513,822             | 4,096,958       | 4,884,145      | 5,284,632      |
| General and Administrative                                       | 300,465                | 100,179        | 77,142                      | 68,768        | 1,482,737             | 1,714,064       | 1,860,344      | 1,883,011      |
| Utilities                                                        | 419,493                | 446,898        | 296,419                     | 384,574       | 1,815,047             | 2,058,999       | 2,530,959      | 2,890,471      |
| Materials and Supplies                                           | 279,430                | 399,747        | 232,039                     | 350,431       | 1,393,271             | 1,362,852       | 1,904,740      | 2,113,030      |
| Miscellaneous Services                                           | 3,645,096              | 2,685,900      | 6,257,849                   | 6,238,240     | 1,958,582             | 1,420,016       | 11,861,527     | 10,344,156     |
| Treatment and Transportation                                     | -                      | -              | 2,906,958                   | 3,385,568     | 11,926                | 9,547           | 2,918,884      | 3,395,115      |
| Depreciation and Amortization                                    | 2,948,963              | 2,602,179      | 5,937,183                   | 4,571,072     | 6,117,396             | 5,835,507       | 15,003,542     | 13,008,758     |
| Total Operating Expenses                                         | 10,170,259             | 8,513,436      | 16,999,689                  | 16,263,343    | 23,791,494            | 23,991,687      | 50,961,442     | 48,768,466     |
| <b>OPERATING INCOME (LOSS)</b>                                   | 696,416                | 1,417,105      | (825,262)                   | (2,181,287)   | 14,192,181            | 13,084,175      | 14,063,335     | 12,319,993     |
| <b>NONOPERATING REVENUES (EXPENSES):</b>                         |                        |                |                             |               |                       |                 |                |                |
| Tapping and Capital Recovery Fees                                |                        |                |                             |               |                       |                 |                |                |
| Meter Sales                                                      | 464,648                | 418,775        | 3,575,692                   | 1,573,749     | 1,901,863             | 1,707,128       | 5,942,203      | 3,699,652      |
| Inspection, Plan Reviews, and Project Reimbursements             | 77,685                 | 94,763         | -                           | -             | 24,595                | 22,466          | 102,280        | 117,229        |
| Investment Earnings                                              | 318,263                | 393,187        | 8,655                       | 42,518        | 841,585               | 448,402         | 1,168,503      | 884,107        |
| Interest Expense                                                 | 84,958                 | 194,200        | 193,926                     | 332,847       | 162,075               | 1,193,618       | 440,959        | 1,720,665      |
| Other Expense                                                    | (1,442,776)            | (1,545,028)    | (199,707)                   | (213,114)     | (17,257,071)          | (19,386,584)    | (18,899,554)   | (21,144,726)   |
| Other Income                                                     | (57,563)               | (113,255)      | (42,698)                    | (43,757)      | (4,206,199)           | (1,259,785)     | (4,306,460)    | (1,416,797)    |
| Total Nonoperating Revenues/(Expenses)                           | 105,508                | 93,928         | 6,194                       | 711           | 51,620                | 59,659          | 163,322        | 154,298        |
|                                                                  | (449,277)              | (463,430)      | 3,542,062                   | 1,692,954     | (18,481,532)          | (17,215,096)    | (15,388,747)   | (15,985,572)   |
| Increase (Decrease) in net position before capital contributions | 247,139                | 953,675        | 2,716,800                   | (488,333)     | (4,289,351)           | (4,130,921)     | (1,325,412)    | (3,685,579)    |
| <b>Capital Contributions:</b>                                    |                        |                |                             |               |                       |                 |                |                |
| Capital Grant                                                    | -                      | -              | -                           | -             | -                     | -               | -              | -              |
| Capital Assets Provided by Developers and Others                 | 209,793                | 1,716,419      | 7,620                       | 15,000        | -                     | -               | 217,413        | 1,731,419      |
| Total Capital Contributions                                      | 209,793                | 1,716,419      | 7,620                       | 15,000        | -                     | -               | 217,413        | 1,731,419      |
| <b>Increase (Decrease) in Net Position</b>                       | 456,932                | 2,670,094      | 2,724,420                   | (473,333)     | (4,289,351)           | (4,130,921)     | (1,107,999)    | (1,934,160)    |
| <b>Net Position at Beginning of Year</b>                         | 101,110,541            | 98,440,447     | 99,389,339                  | 99,862,672    | (55,388,364)          | (51,257,443)    | 145,111,516    | 147,045,676    |
| <b>Net Position at End of Year</b>                               | \$ 101,567,473         | \$ 101,110,541 | \$ 102,113,759              | \$ 99,389,339 | \$ (59,677,715)       | \$ (55,388,364) | \$ 144,003,517 | \$ 145,111,516 |

The accompanying notes are an integral part of the financial statements.

LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA

STATEMENTS OF CASH FLOWS  
Years Ended December 31, 2020 AND 2019

**CASH FLOWS FROM OPERATING ACTIVITIES**

Cash Received From Customers  
Cash Payments To Suppliers For  
Goods And Services  
Cash Payments To Employees For Services  
Other Operating Cash Receipts

**Net Cash Provided By Operating Activities**

|                                                   | Suburban<br>Water Fund | Suburban<br>Wastewater Fund | City Division<br>Fund | Total         |
|---------------------------------------------------|------------------------|-----------------------------|-----------------------|---------------|
|                                                   | 2020                   | 2019                        | 2020                  | 2019          |
| Cash Received From Customers                      | \$ 10,465,048          | \$ 9,683,543                | \$ 16,243,302         | \$ 14,529,734 |
| Cash Payments To Suppliers For Goods And Services | (4,458,210)            | (3,214,436)                 | (10,666,746)          | (9,982,775)   |
| Cash Payments To Employees For Services           | (3,132,622)            | (2,355,530)                 | (1,449,243)           | (1,292,510)   |
| Other Operating Cash Receipts                     | (79,427)               | 73,566                      | 193,826               | 241,900       |
| <b>Net Cash Provided By Operating Activities</b>  | 2,794,789              | 4,187,143                   | 4,319,139             | 3,496,349     |

**CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES**

Interest Paid on Revenue Bonds and Notes  
Facility Improvement Payments  
Payments to the City of Allentown  
Transfers From Other Funds  
Transfers To Other Funds

|                                                                       | Suburban<br>Water Fund | Suburban<br>Wastewater Fund | City Division<br>Fund | Total        |
|-----------------------------------------------------------------------|------------------------|-----------------------------|-----------------------|--------------|
|                                                                       | 2020                   | 2019                        | 2020                  | 2019         |
| Interest Paid on Revenue Bonds and Notes                              | -                      | -                           | -                     | -            |
| Facility Improvement Payments                                         | -                      | -                           | -                     | -            |
| Payments to the City of Allentown                                     | -                      | -                           | (2,071,742)           | (3,148,442)  |
| Transfers From Other Funds                                            | (19,514)               | 5,976,539                   | (533,258)             | (524,861)    |
| Transfers To Other Funds                                              | -                      | -                           | 6,695                 | (10,364,712) |
| <b>Net Cash Provided By (Used in) Noncapital Financing Activities</b> | (19,514)               | 5,976,539                   | (13,451,718)          | (27,454,764) |

**CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES**

Receipts/(Release) of Developer Deposits  
Payments of Developer Deposits  
Payments of Facilities Planning Costs  
Acquisition and Construction of Property and Equipment  
Cash Received from Tapping and Capital Recovery Fees  
Cash Received from Meter Sales  
Cash Received from Inspection, Plan Reviews, and Project Reimbursement  
Other Capital Cash Receipts  
Other Capital Cash Payments  
Revenue Bond and Note Issuance Proceeds  
Payments to Escrow Agents  
Principal Paid On Revenue Bonds  
Principal Paid On Revenue Notes  
Interest Paid On Revenue Bonds and Notes

|                                                                                | Suburban<br>Water Fund | Suburban<br>Wastewater Fund | City Division<br>Fund | Total       |
|--------------------------------------------------------------------------------|------------------------|-----------------------------|-----------------------|-------------|
|                                                                                | 2020                   | 2019                        | 2020                  | 2019        |
| Receipts/(Release) of Developer Deposits                                       | -                      | 476,525                     | -                     | -           |
| Payments of Developer Deposits                                                 | (99,112)               | (705,174)                   | -                     | -           |
| Payments of Facilities Planning Costs                                          | (78,153)               | (23,211)                    | (1,640,963)           | (10,800)    |
| Acquisition and Construction of Property and Equipment                         | (4,214,495)            | (8,560,755)                 | (6,666,645)           | (9,612,987) |
| Cash Received from Tapping and Capital Recovery Fees                           | 464,648                | 418,775                     | 3,575,692             | 1,573,749   |
| Cash Received from Meter Sales                                                 | 77,695                 | 94,763                      | -                     | -           |
| Cash Received from Inspection, Plan Reviews, and Project Reimbursement         | 318,263                | 393,187                     | 8,655                 | 42,518      |
| Other Capital Cash Receipts                                                    | 105,508                | 93,928                      | (47,601)              | 118,522     |
| Other Capital Cash Payments                                                    | (57,563)               | (113,255)                   | -                     | -           |
| Revenue Bond and Note Issuance Proceeds                                        | -                      | -                           | -                     | -           |
| Payments to Escrow Agents                                                      | -                      | -                           | -                     | -           |
| Principal Paid On Revenue Bonds                                                | (1,833,012)            | (1,481,325)                 | (114,905)             | (78,904)    |
| Principal Paid On Revenue Notes                                                | (248,379)              | (243,812)                   | (427,161)             | (420,205)   |
| Interest Paid On Revenue Bonds and Notes                                       | (1,436,049)            | (1,468,257)                 | (199,707)             | (213,114)   |
| <b>Net Cash Provided by (Used in) Capital and Related Financing Activities</b> | (7,000,659)            | (11,118,611)                | (5,514,635)           | (8,585,226) |

**CASH FLOWS FROM INVESTING ACTIVITIES**

Maturities of Certificates Of Deposit  
Purchase of Certificates Of Deposit  
Purchase of U.S. Treasury Obligations  
Maturities of U.S. Treasury Obligations  
Interest Received On Investments

|                                                            | Suburban<br>Water Fund | Suburban<br>Wastewater Fund | City Division<br>Fund | Total        |
|------------------------------------------------------------|------------------------|-----------------------------|-----------------------|--------------|
|                                                            | 2020                   | 2019                        | 2020                  | 2019         |
| Maturities of Certificates Of Deposit                      | 2,910,486              | 3,808,000                   | 4,543,273             | 14,866,203   |
| Purchase of Certificates Of Deposit                        | (2,239,000)            | (2,572,668)                 | (3,155,000)           | (16,147,680) |
| Purchase of U.S. Treasury Obligations                      | (244,924)              | -                           | -                     | -            |
| Maturities of U.S. Treasury Obligations                    | -                      | 2,230,000                   | -                     | -            |
| Interest Received On Investments                           | 82,901                 | 171,504                     | 192,493               | 296,686      |
| <b>Net Cash Provided by (Used in) Investing Activities</b> | 509,463                | 3,636,836                   | 1,580,766             | (984,791)    |

**Net Increase (Decrease) in Cash**

Cash:

Beginning

Ending

|                                 | Suburban<br>Water Fund | Suburban<br>Wastewater Fund | City Division<br>Fund | Total       |
|---------------------------------|------------------------|-----------------------------|-----------------------|-------------|
|                                 | 2020                   | 2019                        | 2020                  | 2019        |
| Net Increase (Decrease) in Cash | (3,715,921)            | 2,661,907                   | 398,089               | (1,665,495) |

**Cash Consisted of the Following:**

Cash and Cash Equivalents  
Restricted Cash and Cash Equivalents  
Total Cash and Cash Equivalents

|                                      | Suburban<br>Water Fund | Suburban<br>Wastewater Fund | City Division<br>Fund | Total        |
|--------------------------------------|------------------------|-----------------------------|-----------------------|--------------|
|                                      | 2020                   | 2019                        | 2020                  | 2019         |
| Cash and Cash Equivalents            | \$ 9,101,965           | \$ 12,817,886               | \$ 7,793,208          | \$ 7,395,119 |
| Restricted Cash and Cash Equivalents | 7,243,472              | 9,242,611                   | 1,548,255             | 3,783,046    |
| Total Cash and Cash Equivalents      | \$ 9,101,965           | \$ 12,817,886               | \$ 7,793,208          | \$ 7,395,119 |

This statement is continued on the next page  
The accompanying notes are an integral part of the financial statements.

LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA

**STATEMENTS OF CASH FLOWS (CONTINUED)**  
Years Ended December 31, 2020 AND 2019

|                                                                                                        | Suburban<br>Water Fund |                     | Suburban<br>Wastewater Fund |                     | City Division<br>Fund |                      | Total                |                      |
|--------------------------------------------------------------------------------------------------------|------------------------|---------------------|-----------------------------|---------------------|-----------------------|----------------------|----------------------|----------------------|
|                                                                                                        | 2020                   | 2019                | 2020                        | 2019                | 2020                  | 2019                 | 2020                 | 2019                 |
| <b>Reconciliation Of Operating Income (Loss) To Net Cash Provided By Operating Activities</b>          |                        |                     |                             |                     |                       |                      |                      |                      |
| Operating Income (Loss)                                                                                | \$ 696,416             | \$ 1,417,105        | \$ (825,262)                | \$ (2,181,287)      | \$ 14,192,181         | \$ 13,084,175        | \$ 14,063,335        | \$ 12,319,993        |
| Adjustments to Reconcile Operating Income (Loss) to Net Cash Provided by/Used In Operating Activities: |                        |                     |                             |                     |                       |                      |                      |                      |
| Depreciation and Amortization                                                                          | 2,948,963              | 2,602,179           | 5,937,183                   | 4,571,072           | 6,117,396             | 5,835,507            | 15,003,542           | 13,008,758           |
| Change in Assets and Liabilities:                                                                      |                        |                     |                             |                     |                       |                      |                      |                      |
| (Increase)/Decrease in Accounts Receivable Customers                                                   | (369,087)              | (96,573)            | (97,803)                    | 538,625             | (1,539,656)           | 64,252               | (2,006,546)          | 506,304              |
| (Increase)/Decrease in Financing Contract Receivable                                                   | -                      | -                   | 331,646                     | 316,797             | -                     | -                    | 331,646              | 316,797              |
| (Increase)/Decrease in Other Operating Receivable                                                      | (111,967)              | (76,859)            | 28,858                      | (165,844)           | (360,177)             | 1,206,462            | (443,286)            | 963,759              |
| (Increase)/Decrease in Inventory                                                                       | 11,477                 | (19,884)            | -                           | -                   | -                     | -                    | 11,477               | (19,884)             |
| (Increase)/Decrease in Prepaid Expense                                                                 | (9,925)                | 12,138              | 3,218                       | (8,274)             | 5,704                 | (39,566)             | (1,003)              | (35,702)             |
| Increase in OPEB Liability                                                                             | -                      | -                   | -                           | -                   | 880,220               | 924,844              | 880,220              | 924,844              |
| Increase in OPEB Asset                                                                                 | (145,046)              | (507,345)           | -                           | -                   | -                     | -                    | (145,046)            | (507,345)            |
| Increase/(Decrease) in Accounts Payable - Trade                                                        | (115,743)              | 325,855             | (978,699)                   | 384,312             | 509,553               | (1,174,746)          | (584,889)            | (464,579)            |
| Increase in Net Pension Liability                                                                      | (768,918)              | 619,355             | (387,067)                   | 311,778             | (2,855,065)           | 2,289,724            | (4,011,050)          | 3,230,857            |
| (Increase) in Pension Deferred Outflows                                                                | 146,225                | (170,226)           | 73,609                      | (85,691)            | 542,954               | (632,066)            | 762,788              | (887,983)            |
| (Increase) in OPEB Deferred Outflows                                                                   | 33,942                 | 317,726             | -                           | -                   | (327,162)             | (662,093)            | (293,220)            | (344,367)            |
| Increase in OPEB Deferred Inflows                                                                      | (11,174)               | 119,297             | -                           | -                   | -                     | -                    | (11,174)             | 119,297              |
| Increase in Pension Deferred Inflows                                                                   | 545,758                | (361,361)           | 274,730                     | (181,906)           | 2,026,453             | (1,341,769)          | 2,846,941            | (1,885,036)          |
| Increase/(Decrease) in Accrued Wages and Other                                                         | (56,132)               | 5,736               | (41,274)                    | (3,233)             | (270,696)             | 59,133               | (368,102)            | 61,636               |
| <b>Net Cash Provided By Operating Activities</b>                                                       | <b>\$ 2,794,789</b>    | <b>\$ 4,187,143</b> | <b>\$ 4,319,139</b>         | <b>\$ 3,496,349</b> | <b>\$ 18,321,705</b>  | <b>\$ 19,623,857</b> | <b>\$ 26,035,633</b> | <b>\$ 27,307,349</b> |
| <b>Noncash Investing, Capital, and Financing Activities</b>                                            |                        |                     |                             |                     |                       |                      |                      |                      |
| Noncash Capital Activities, Contribution of Capital                                                    |                        |                     |                             |                     |                       |                      |                      |                      |
| Assets From Developers and Others                                                                      | \$ 209,793             | \$ 1,716,419        | \$ 7,620                    | \$ 15,000           | \$ -                  | \$ -                 | \$ 217,413           | \$ 1,731,419         |
| Noncash Noncapital Activities, Accretion on Bonds Payable                                              | -                      | -                   | -                           | -                   | 3,574,904             | 3,392,575            | 3,574,904            | 3,392,575            |
| Value of SCA Asset                                                                                     | -                      | -                   | -                           | -                   | (14,733,768)          | -                    | (14,733,768)         | -                    |
| Noncash Noncapital Activities, Change in Present Value of SCA Asset                                    | -                      | -                   | -                           | -                   | -                     | -                    | -                    | -                    |
| Noncash Noncapital Activities, Change in Present Value of SCA Payable                                  | (6,854)                | (31,009)            | (18,743)                    | (20,095)            | 17,099,845            | 2,283,222            | 17,099,845           | 2,283,222            |
| Change in Fair Value of Investments                                                                    | -                      | -                   | -                           | -                   | -                     | (59,360)             | (25,597)             | (110,464)            |

The accompanying notes are an integral part of the financial statements.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**STATEMENTS OF FIDUCIARY NET POSITION  
FIDUCIARY FUND  
DECEMBER 31, 2020 and 2019**

|                                                                |    | Component Unit<br>Suburban<br>Post Employment Health Fund |              |
|----------------------------------------------------------------|----|-----------------------------------------------------------|--------------|
|                                                                |    | 2020                                                      | 2019         |
| Assets                                                         |    |                                                           |              |
| Investments:                                                   |    |                                                           |              |
| Cash Equivalents                                               | \$ | 203,795                                                   | \$ 3,385,901 |
| Mutual Funds - Equity                                          |    | 1,375,076                                                 | -            |
| Mutual Funds - Fixed Income                                    |    | 343,311                                                   | -            |
| Stocks                                                         |    | 1,265,583                                                 | -            |
| U.S. Treasury Obligations                                      |    | 130,076                                                   | -            |
| U.S. Agencies                                                  |    | 67,168                                                    | -            |
| Corporate Bonds                                                |    | 293,278                                                   | -            |
| Total Assets                                                   | \$ | 3,678,287                                                 | \$ 3,385,901 |
| Liabilities                                                    |    |                                                           |              |
| Accounts Payable                                               | \$ | 88,255                                                    | \$ -         |
| Total Liabilities                                              | \$ | 88,255                                                    | \$ -         |
| Net Position Restricted for<br>Post Retirement Health Benefits | \$ | 3,590,032                                                 | \$ 3,385,901 |

The accompanying notes are an integral part of the financial statements.



**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION  
FIDUCIARY FUND  
FOR THE YEARS ENDED DECEMBER 31, 2020 and 2019**

|                                                              | Component Unit<br>Suburban<br>Post Employment Health Fund |              |
|--------------------------------------------------------------|-----------------------------------------------------------|--------------|
|                                                              | 2020                                                      | 2019         |
| Additions:                                                   |                                                           |              |
| Contributions:                                               |                                                           |              |
| Employer                                                     | \$ 27,393                                                 | \$ 22,928    |
| Total Contributions                                          | 27,393                                                    | 22,928       |
| Investment Income:                                           |                                                           |              |
| Net Increase/(Decrease) in Fair Value of Investments         | 297,312                                                   | 648,168      |
| Less Investment Expense                                      | (4,926)                                                   | (3,047)      |
| Net Investment Income/(Loss)                                 | 292,386                                                   | 645,121      |
| Total Additions                                              | 319,779                                                   | 668,049      |
| Deductions:                                                  |                                                           |              |
| Reimbursement of Benefits Expense                            | 115,648                                                   | 110,336      |
| Total Deductions                                             | 115,648                                                   | 110,336      |
| Net Increase/(Decrease) in Net Position                      | 204,131                                                   | 557,713      |
| Net Position Restricted for Post Retirement Health Benefits: |                                                           |              |
| Beginning of Year                                            | 3,385,901                                                 | 2,828,188    |
| End of Year                                                  | \$ 3,590,032                                              | \$ 3,385,901 |

The accompanying notes are an integral part of the financial statements.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

**A. Reporting Entity**

The Lehigh County Authority (the Authority) was incorporated under the Pennsylvania Municipal Authorities Act, by the Lehigh County Commissioners in 1966, "... for the purpose of accumulating, conserving, and distributing fresh water ..." Under the Act, an authority is an independent municipal corporation and a separate governmental agency of the state. In 1969, the County Commissioners advanced the Authority from a paper organization to an operating unit to plan and construct a water supply system and a wastewater interceptor system to serve residential, commercial and industrial users in the western part of Lehigh County. In 2013, the Authority started serving other areas of Lehigh County when it acquired the rights to lease and operate the City of Allentown's Water and Sewer Systems under a 50-year Concession and Lease Agreement (the Concession). As a result of this Agreement, the Authority created both City and Suburban Divisions, in recognition of the various agreements and financings, related to each entity.

The Authority currently provides two types of services to communities in the City Division. Through the Water Plant and Distribution System (the City Water System) the Authority serves 46,921 residential and business units in the City of Allentown and supplies water under Municipal Services Agreements to Lehigh County Municipalities of South Whitehall, Hanover, Salisbury, Whitehall, Bethlehem and to the Suburban Division under a previously executed water supply agreement. Through the Sewer Utility System (the City Sewer System) the Authority provides sewage collection, treatment and disposal services to 46,907 residential and business units in the City of Allentown and to the Lehigh County Municipalities of Coplay-Whitehall, Emmaus, Hanover, Salisbury, Lower Macungie, South Whitehall and to the Suburban Division, under a previously executed sewer services agreement.

The Authority currently provides four types of service to communities in the Suburban Division. Through the Western Lehigh Interceptor System, the Authority provides sewage transportation service to the Townships of Lower Macungie, Lowhill, Upper Macungie, Upper Milford, and Weisenberg and the Boroughs of Alburtis, Emmaus and Macungie. The Authority owns and operates wastewater collection systems in the Townships of Upper Milford, Heidelberg, Lynn, North Whitehall and Weisenberg serving a total of 2,948 customers as of December 31, 2020. Through the Little Lehigh Relief Interceptor System, the Authority provides sewage transportation service to Salisbury and South Whitehall Townships along with the other users of the Western Lehigh Interceptor System excluding Emmaus. As of December 31, 2020 the Water System serves 23,282 residential and business units in the Lehigh County Municipalities of Upper and Lower Macungie, North Whitehall, Washington, Weisenberg, South Whitehall, Heidelberg, Lower Milford, Lowhill, Lynn, Salisbury and Upper Milford Townships and in Moore Township of Northampton County.

The accompanying financial statements include all funds which are "controlled by or are dependent on" the Authority. The funds included are the Suburban Water Fund, both operating and capital, the Suburban Wastewater Fund, both operating and capital for the Western Lehigh Interceptor System, Little Lehigh Relief Interceptor System, Wastewater Collector Systems in Upper Milford, Weisenberg, Washington, Lynn, Heidelberg and North Whitehall Townships, a Wastewater Treatment Plant and planning activity for providing wastewater service, and the City Division Fund, both operating and capital.

Accordingly, the accompanying financial statements do not include the financial activities of the County of Lehigh (the County), nor are the Authority's financial activities included in the County's financial statements, since each is considered a separate entity under the Governmental Accounting Standards Board (GASB) criteria.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

For purposes of financial reporting, the Authority is a related organization to the County. The criteria used in determining the scope of the reporting entity are outlined below.

The Authority members are appointed to five-year terms by the County Executive, with concurrence by the County Commissioners, in an authoritative, official capacity. After confirmation, only the Court of Common Pleas can remove a member for cause. While there is continuing communication with the County, there is little linkage to the elected County officials thereafter.

The management and employees of the Authority responsible for the operations of the Authority are appointed by and held accountable to the Authority. The County does not possess powers of appointment over any Authority employee.

The Authority reviews and approves all budgets, sets rates, and exercises control over facilities, property and policies relating to the services provided by the Authority. The County is under no obligation to finance operating deficits and does not have claim to any surpluses. The Authority has the power to issue bonds and other financing, with the County having no legal responsibility for debt issued by the Authority.

The accounting policies of the Lehigh County Authority conform to generally accepted accounting principles as established by the Governmental Accounting Standards Board. The following is a summary of the significant policies:

**B. Measurement Focus, Basis of Accounting and Financial Statement Presentation**

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and deferred outflows of resources, liabilities and deferred inflows of resources, and net position and disclosures at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

The financial statements are reported using the economic resources measurement focus and the accrual basis of accounting. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of timing of related cash flows. Grants and similar items are recognized as revenues as soon as all eligibility requirements imposed by the provider have been met.

Operating revenues and expenses are distinguished from non-operating items in the statement of revenues, expenses and changes in net position. Operating revenues and expenses result from providing services in connection with the Authority's principal ongoing operations. Principal operating revenues of the Authority are charges to customers for water use and wastewater collection, transmission and treatment. When calculating user fees charged to customers, the Authority includes a component for the repayment of principal on the Authority's outstanding debt. Operating expenses include the cost of providing water and wastewater services, administrative expenses and depreciation on capital assets. All revenues and expenses not meeting this definition are reported as non-operating revenues and expenses. The principal non-operating revenues of the Authority are capital recovery fees, plan review and inspection fees and investment income. The principal non-operating expenses of the Authority include interest expense and cost of goods sold.

Capital grant funding represents amounts received from capital project grants, which are restricted to capital acquisition or construction. The Authority recognizes capital grant funding when the grants are earned which is generally when the related capital expenditure is made.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

The funds and component unit of the Authority are grouped in the financial statements in this report as follows:

1. Proprietary Funds:

Enterprise Funds - are used to account for business-like activities provided to the general public. These activities are financed primarily by user charges, and the measurement of financial activity focuses on net income measurement similar to the private sector. The reporting entity includes the following enterprise funds, which are reported as major funds:

Suburban Water Fund - Used to account for the operations of the suburban water supply and distribution system. The suburban water system is a public utility service, which is intended to be maintained on a self-supporting basis.

Suburban Wastewater Fund - Used to account for the operations of the suburban wastewater interceptor, collector systems, and treatment facilities. The suburban wastewater system is a public utility service, which intends to be maintained on a self-supporting basis.

City Division Fund – Used to account for the operations of the City Concessioned System. The City Division Fund is a public utility service, which intends to be maintained on a self-supporting basis. This fund was added in 2013 because of the Service Concession Arrangement discussed in Note 6.

2. Fiduciary Component Unit:

The Suburban Post-Employment Health Trust Plan (the “Plan”) was created in 2010 to accumulate assets to be used for payment of health benefits to qualified retirees. The Plan is included in the financial reporting entity as a fiduciary component unit because the Plan is (1) considered to be a separate legal entity, (2) the Authority appoints a voting majority of the governing board, and (3) the plan imposes a financial burden on the Authority as it is having assumed an obligation to make contributions to the Plan.

**C. Budgets and Budgetary Accounting**

The Lehigh County Authority follows these procedures in establishing the annual budgets:

1. Over the summer months, department heads develop a preliminary budget, including personnel needs, for all capital and operating programs and for all line items for the coming calendar year. Supporting detail provides justification for each budget component, including calculations, quotations, project timetables, outlines, etc.
2. The budget is given to the Authority Board in late September for review. A formal presentation is made the second week of October with final adoption at the Authority’s final October meeting. The final copy of the budget includes an individual budget for City and Suburban Divisions, including Water and Wastewater Operating, and Water and Wastewater Capital sections. The officially adopted budget is the financial plan for the ensuing year.
3. Monthly financials are prepared and distributed to the board and to department heads. The report cites monthly and year-to-date activity as well as unused budgeted monies. All department heads are responsible for evaluating their areas for compliance with the budget and taking appropriate remedial action.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

4. The Finance Department is authorized to transfer budgeted amounts between line items, however, any revisions that alter the total expenses or revenues of any fund must be approved by the Authority Board. For the year ended December 31, 2020, there were no budget amendments.
5. The level of control (level at which expenses may not exceed budget) is the individual budgets within each fund. Budgets lapse at year-end.
6. Budgets for the Enterprise Funds are adopted on a basis consistent with accounting principles generally accepted in the United States of America. The budgets of the Authority are maintained and are prepared using the accrual basis of accounting. Budgeted amounts are as originally adopted, as amended by the Finance Department, or as amended by the Authority Board.

**D. Cash and Cash Equivalents**

For purposes of the statement of cash flows, the Authority considers all highly liquid investments, including investments in external investment pools and money market mutual funds as discussed in Note 2, with a maturity of three months or less when purchased to be cash equivalents.

Restricted Cash and Certificates of Deposit include escrow accounts established in the Authority's name for maintenance security by developers, funds held by the trustee in debt service accounts, and other special purpose trustee accounts which include unspent bond proceeds.

**E. Trade Receivables**

All trade receivables are shown net of an allowance for uncollectables, as applicable, trade receivables are evaluated for collectability and an allowance is established, as deemed necessary based on the best information available and in an amount that management believes is adequate. Trade receivables are written off when deemed uncollectible. Recoveries of trade receivables previously written off are recorded when received.

**F. Inventory**

Inventory of the Suburban Water Fund consists of meters and related components and is stated at cost (first-in, first-out). It is the policy of the Authority to expense all other materials and supplies on a current basis for all funds.

**G. Investments, External Investment Pools, Certificates of Deposit**

The Authority invests its idle funds in various instruments, including external investment pools which invest in government secured instruments and certificates of deposit with federally insured financial institutions. The investments, as listed on the balance sheet, include an equity security held in escrow as security for Developer system extensions. This investment is valued at fair value. The Authority's investment in external investment pools, as discussed in Note 2, and government secured money market instruments are valued at fair value, or amortized cost, which approximates cost and is classified as cash and cash equivalents in the balance sheet. The Authority invests in both negotiable and non-negotiable certificates of deposit (CD) in federally insured financial institutions. Negotiable CD's are valued at fair value while non-negotiable CD's are valued at cost because they are considered non-participating contracts for which redemption terms do not consider market rates.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

**H. Capital Assets & Depreciation, and Service Concession Arrangement & Amortization**

The Authority uses a capitalization threshold of \$5,000 to record capital assets purchased and constructed. The expenses are recorded at cost including any liability for contract retainage and construction costs payable. In addition, the Authority included any water rights associated with a project as part of the cost of that project and depreciated them accordingly. Intangible assets acquired in the Service Concession Arrangement are amortized over 50 years. Intangible assets with an indefinite life are not subject to amortization. The construction accounts have also been charged with applicable administrative expenses.

Contributed assets are carried at estimated acquisition value at the time of contribution. Depreciation is determined using the straight-line method based upon the following estimated useful lives:

|                                                        | <u>Years</u> |
|--------------------------------------------------------|--------------|
| Wells                                                  | 45           |
| Transmission and Distribution Mains                    | 100          |
| Services                                               | 60           |
| Fire Hydrants                                          | 65           |
| Reservoirs                                             | 55           |
| Pumping Station – Structures                           | 45           |
| Pumping Station - Electrical and Pumping Appurtenances | 35           |
| Pumping Station – Purification                         | 33.5         |
| Metering System                                        | 20           |
| Transportation and Computer Equipment                  | 5            |
| Communication and Miscellaneous Equipment              | 5 - 20       |
| Wastewater Collector System                            | 100          |
| Western Lehigh Interceptor System                      | 50           |
| Relief Interceptor Systems                             | 100          |
| Office Equipment and Furnishings                       | 10           |
| Office Building and Site Improvements                  | 20 - 40      |
| Water Capacity                                         | 40           |

Normal maintenance and repairs are charged to operations as incurred. Renewals and betterments are capitalized and depreciated based upon the expected life of such improvements.

Interest is capitalized on assets acquired with tax-exempt debt. The amount of interest to be capitalized is calculated by offsetting interest expense incurred from the date of the borrowing until completion of the project with interest earned on invested proceeds over the same period.

Non-exchange transactions, such as donated system assets and assets acquired by contributions, are recognized as capital contributions in accordance with GASB Statement No. 33.

**I. Facilities Planning Costs**

The Authority has adopted a policy of amortizing planning costs related to all Water and Wastewater activity. With the exception of the development of a Water System hydraulic model, a Financial Information System Selection, an Integrated Computer System study, a Methane Gas Energy Study and the costs of negotiating a lease agreement with the County of Lehigh for oversight of a wastewater treatment plant, all of which are being amortized over 7 years, and a future water supply drilling program and a wastewater hydraulic model, which are being amortized over 10 years, all other planning costs are amortized over a 3-year period.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

The period over which the costs are amortized and the amortization expense for 2020 and 2019 are as follows:

|                                  | <u>Amortization<br/>Period (Years)</u> | <u>2020<br/>Amortization</u> | <u>2019<br/>Amortization</u> |
|----------------------------------|----------------------------------------|------------------------------|------------------------------|
| <b>Suburban Water Fund:</b>      |                                        |                              |                              |
| Facilities Planning Costs        | 3-10                                   | \$ 42,756                    | \$ 23,516                    |
| <b>Suburban Wastewater Fund:</b> |                                        |                              |                              |
| Facilities Planning Costs        | 3-7                                    | <u>2,968,848</u>             | <u>55,033</u>                |
| Total Amortization               |                                        | <u>\$ 3,011,604</u>          | <u>\$ 78,549</u>             |

**J. Compensated Absences**

The Authority has an incentive excused absence policy, which annually compensates employees who are absent from work less than a specific number of days during the year. Excused absences include employee and dependent illness, medical or dental appointments, or any other valid reason approved by the employee's immediate supervisor. There is no carryover of the excused absence allowance.

Employees may carry over any remaining time in excess of ten days, if they have taken at least ten vacation days in the current year. Employees cannot carry over more vacation hours than the vacation hours they will earn in the next year.

The following table summarizes unused vacation liability:

|                              | <u>2020</u>       | <u>2019</u>       |
|------------------------------|-------------------|-------------------|
| Balance at Beginning of Year | \$ 307,524        | \$ 283,062        |
| Additions                    | 319,277           | 307,524           |
| Retirements                  | <u>(307,524)</u>  | <u>(283,062)</u>  |
| Balance at End of Year       | <u>\$ 319,277</u> | <u>\$ 307,524</u> |

Unused vacation days are generally utilized within 12 months and are reported in current liabilities as a component of Accrued Payroll and Other.

**K. Deferred Outflows of Resources**

The statement of Net Position reports a separate section for deferred outflows of resources. This separate financial statement element represents consumption of net position that applies to a future period(s) and so will not be recognized as an outflow of resources (expense) until then. The Authority has three items that qualify for reporting in this category: deferred outflows related to pensions, OPEB and refunding losses on bonds.

**L. Reclassifications**

Certain prior year amounts have been reclassified to conform with current year presentation.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

**M. Deferred Inflows of Resources**

The statement of Net Position reports a separate section for deferred inflows of resources. This separate financial statement element represents acquisition of net position that applies to future period(s) and will not be recognized as an inflow of resources (revenue) until that time. The Authority has two items that qualify for reporting in this category: deferred inflows related to pensions and OPEB.

**N. Adoption of Governmental Accounting Standards Board Statements**

The Authority adopted the provisions of GASB Statement No. 83, "*Certain Asset Retirement Obligations*", GASB Statement No. 84, "*Fiduciary Activities*", GASB Statement No. 88 "*Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements*", GASB Statement No. 90, "*Majority Equity Interest—an amendment of GASB Statements No. 14 and No. 61*" and paragraphs 4 and 5 of GASB Statement No. 97 "*Certain Component Unit Criteria, and Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans—an amendment of GASB Statements No. 14 and No. 84, and a supersession of GASB Statement No. 32*". The adoption of GASB Statement No. 84 changed the presentation of the Statement of Fiduciary Net Position and the Statement of Changes in Fiduciary Net position. The adoption of the remaining statements had no effect on previously reported amounts.

**O. Pending Changes in Accounting Principles**

In June 2017, the GASB issued Statement No. 87, "*Leases*". The Authority is required to adopt statement No. 87 for its calendar year 2022 financial statements.

In June 2018, the GASB issued Statement No. 89, "*Accounting for Interest Cost Incurred before the End of a Construction Period*". The Authority is required to adopt statement No. 89 for its calendar year 2021 statements.

In May 2019, the GASB issued Statement No. 91, "*Conduit Debt Obligations*". The Authority is required to adopt statement No. 91 for its calendar year 2022 statements.

In January 2020, the GASB issued Statement No. 92, "*Omnibus 2020*". The Authority is required to adopt statement No. 92 for its calendar year 2022 statements.

In March 2020, the GASB issued Statement No. 93, "*Replacement of Interbank Offered Rates*". The Authority is required to adopt statement No. 93 for its calendar year 2021 statements, except for the requirements of paragraphs 11b, 13, and 14 which are effective for the Authority's calendar year 2022 statements.

In March 2020, the GASB issued Statement No. 94, "*Public-Private and Public-Public Partnerships and Availability Payment Arrangements*". The Authority is required to adopt statement No. 94 for its calendar year 2023 statements.

In May 2020, the GASB issued Statement No. 96, "*Subscription-Based Information Technology Arrangements*". The Authority is required to adopt statement No. 96 for its calendar year 2023 statements.

In June 2020, the GASB issued Statement No. 97, "*Certain Component Unit Criteria, and Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans—an amendment of GASB Statements No. 14 and No. 84, and a supersession of GASB Statement No. 32*". The Authority is required to adopt the remaining provisions of statement No. 97 for its calendar year 2022 statements.

The Authority has not yet completed the various analysis required to estimate the financial statement impact of these new pronouncements.



**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 2 – DEPOSITS AND INVESTMENTS**

The carrying amounts of the cash and investments at December 31 consist of the following:

|                                                    | <u><b>2020</b></u>          | <u><b>2019</b></u>          |
|----------------------------------------------------|-----------------------------|-----------------------------|
| Demand deposit, money market, and savings accounts | \$ 73,127,505               | \$ 68,548,201               |
| Certificates of deposit, nonnegotiable             | 1,000,000                   | 2,425,527                   |
| Overnight repurchase                               | 1,264,010                   | 8,545,022                   |
| Certificates of deposit, negotiable                | 7,885,571                   | 8,494,206                   |
| U.S. Treasury Obligations                          | 244,924                     | -                           |
| Pennsylvania School District Liquid Asset Fund     | 3,999,198                   | 2,579,135                   |
| OPEB Investments:                                  |                             |                             |
| Cash Equivalents                                   | 203,795                     | -                           |
| Mutual Funds - Equity                              | 1,375,076                   | 3,385,901                   |
| Mutual Funds – Fixed Income                        | 343,311                     | -                           |
| Stocks                                             | 1,265,583                   | -                           |
| U.S. Treasury Obligations                          | 130,076                     | -                           |
| U.S. Agencies                                      | 67,168                      | -                           |
| Corporate Bonds                                    | 293,278                     | -                           |
|                                                    | <u><u>\$ 91,199,495</u></u> | <u><u>\$ 93,977,992</u></u> |
| Classification per statements of net position:     |                             |                             |
| Unrestricted current assets                        |                             |                             |
| Cash and cash equivalents                          | \$ 16,246,731               | \$ 20,082,844               |
| Certificates of deposit                            | 8,885,571                   | 10,894,206                  |
| Restricted non-current assets                      |                             |                             |
| Cash and cash equivalents                          | 62,143,982                  | 59,589,514                  |
| Certificates of deposit                            | -                           | 25,527                      |
| Investment U.S. treasury obligations               | 244,924                     | -                           |
| OPEB Investments:                                  |                             |                             |
| Cash Equivalents                                   | 203,795                     | -                           |
| Mutual Funds - Equity                              | 1,375,076                   | 3,385,901                   |
| Mutual Funds – Fixed Income                        | 343,311                     | -                           |
| Stocks                                             | 1,265,583                   | -                           |
| U.S. Treasury Obligations                          | 130,076                     | -                           |
| U.S. Agencies                                      | 67,168                      | -                           |
| Corporate Bonds                                    | 293,278                     | -                           |
|                                                    | <u><u>\$ 91,199,495</u></u> | <u><u>\$ 93,977,992</u></u> |

**Deposits:**

The Authority has a policy that requires all deposits and investments, other than U.S. government obligations, to be covered by Federal insurance or to be fully collateralized by the financial institution issuing the investment or acquiring the deposit. Deposits that are not insured by the Federal Deposit Insurance Corporation are collateralized using the pooled asset method to 100% of value as required by Pennsylvania Law.

The securities pledged as collateral are held by the trust department of a financial institution or by its agent in the financial institution's name. When certificates of deposit are purchased, the Authority or its agent either holds the actual certificate of deposit or receives a safekeeping certificate as its proof of ownership.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 2 – DEPOSITS AND INVESTMENTS (Continued)**

The Authority has custodial credit risk on cash and investment deposits. This is the risk that, in the event of a financial institution failure, the Authority's deposits may not be returned. On December 31, 2020 and 2019, the carrying amounts of the Authority's bank deposits were \$10,123,311 and \$17,293,108 respectively, and the bank balance of \$11,610,289 and \$18,269,919, respectively. As of December 31, 2020, and 2019, \$9,860,289 and \$15,094,393 of deposits were exposed to custodial risk because they were uninsured and collateralized with securities held by the pledging financial institution's trust department or agent, but not in the Authority's name. On December 31, 2020 and 2019 none of the Authority's investments were subject to custodial credit risk.

**Investments:**

Pennsylvania Law limits investment and deposit types the Authority may purchase as follows:

- (a) U.S. Treasury bills
- (b) Short-term obligations of the U.S. government or its agencies
- (c) Demand, savings and time deposits with institutions insured by the FDIC or the National Credit Union Share Funds or collateralized with securities as provided by law.
- (d) Obligations of the United States or any of its agencies, the Commonwealth of Pennsylvania or any of its agencies or any political subdivisions of the Commonwealth of Pennsylvania or any of its agencies providing the obligations are backed by the full faith and credit of the political subdivisions.

Pennsylvania School District Liquid Asset Fund

The Authority has funds invested with the Pennsylvania School District Liquid Asset Fund (PSDLAF), an investment pool managed by RBC Capital Markets. In 2001, PSDLAF amended its bylaws to allow Pennsylvania municipal entities besides school districts to participate in the fund. The purpose of the pool is to enhance investment potential through cash pooling while providing security and liquidity. Pool participants are allocated a pro-rata share of each investment purchased by the pool.

Purchased securities, placed in the name of PSDLAF, serve as collateral and are held in safekeeping at PNC Bank. A liquid fund and MAX fund require no advance notice for withdrawals; however, since the MAX fund does not provide check writing services, a higher rate of return is earned.

In addition, each member can purchase certificates of deposit and other investments through the pool. Security for collateralized certificate of deposit purchases is held at the Bank of New York or the Federal Reserve Bank of Boston. The PSDLAF fund is regulated by the Municipal Securities Rulemaking Board. Investment policy is guided by Pennsylvania statute. The Authority's fair value of its position in the pool is measured at amortized cost and is the same as the value of the pool shares.

Money Market Funds

The Authority invest in various money market mutual funds. The money market accounts are secured only by the investments within the fund, which are generally U.S. Government obligations.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 2 – DEPOSITS AND INVESTMENTS (Continued)**

Investment Maturities

As of December 31, 2020 and 2019, the Authority had the following investments and maturities:

|                                                |                     |                          |                              | <b><u>2020</u></b>                          |                                          |                                         |                                          |
|------------------------------------------------|---------------------|--------------------------|------------------------------|---------------------------------------------|------------------------------------------|-----------------------------------------|------------------------------------------|
|                                                |                     |                          |                              | <b>Investment Maturities<br/>(In Years)</b> |                                          |                                         |                                          |
| <b><u>Investment Type</u></b>                  | <b><u>Cost</u></b>  | <b><u>Fair Value</u></b> | <b><u>% Of<br/>Total</u></b> | <b><u>Less than<br/>One Year</u></b>        | <b><u>One-to-<br/>Five<br/>Years</u></b> | <b><u>Six-to-<br/>Ten<br/>Years</u></b> | <b><u>More<br/>than 10<br/>Years</u></b> |
| Certificates of Deposit, negotiable            | \$7,833,000         | \$7,885,571              | 65.01%                       | \$3,715,629                                 | \$4,169,942                              | -                                       | -                                        |
| U.S. Treasury Obligations                      | 244,682             | 244,924                  | 2.02%                        | 244,924                                     | -                                        | -                                       | -                                        |
| Pennsylvania School District Liquid Asset Fund | <u>3,999,198</u>    | <u>3,999,198</u>         | <u>32.97%</u>                | <u>3,999,198</u>                            | <u>-</u>                                 | <u>-</u>                                | <u>-</u>                                 |
| Total                                          | <u>\$12,076,880</u> | <u>\$12,129,693</u>      | <u>100.00%</u>               | <u>\$7,959,751</u>                          | <u>\$4,169,942</u>                       | <u>\$ -</u>                             | <u>\$ -</u>                              |
| <u>Fiduciary Fund</u>                          |                     |                          |                              |                                             |                                          |                                         |                                          |
| U.S. Government Agencies                       | \$67,217            | \$67,168                 | 8.06%                        | -                                           | -                                        | \$6,056                                 | \$61,112                                 |
| U.S. Government Treasury Obligations           | 134,008             | 130,076                  | 15.60%                       | -                                           | 55,111                                   | -                                       | 74,965                                   |
| Corporate Bonds                                | 293,225             | 293,278                  | 35.17%                       | 12,336                                      | 169,895                                  | 82,609                                  | 28,438                                   |
| Fixed Income Mutual Bonds                      | <u>327,821</u>      | <u>343,311</u>           | <u>41.17%</u>                | <u>-</u>                                    | <u>-</u>                                 | <u>-</u>                                | <u>343,311</u>                           |
| Total                                          | <u>\$822,271</u>    | <u>\$833,833</u>         | <u>100.00%</u>               | <u>\$12,336</u>                             | <u>\$225,006</u>                         | <u>\$88,665</u>                         | <u>\$507,826</u>                         |

|                                                |                     |                          |                              | <b><u>2019</u></b>                          |                                     |
|------------------------------------------------|---------------------|--------------------------|------------------------------|---------------------------------------------|-------------------------------------|
|                                                |                     |                          |                              | <b>Investment Maturities<br/>(In Years)</b> |                                     |
| <b><u>Investment Type</u></b>                  | <b><u>Cost</u></b>  | <b><u>Fair Value</u></b> | <b><u>% Of<br/>Total</u></b> | <b><u>Less than<br/>One Year</u></b>        | <b><u>One-to-Five<br/>Years</u></b> |
| Certificates of Deposit, negotiable            | \$8,460,000         | \$8,494,206              | 76.71%                       | \$2,559,542                                 | \$5,934,664                         |
| Pennsylvania School District Liquid Asset Fund | <u>2,579,135</u>    | <u>2,579,135</u>         | <u>23.29%</u>                | <u>2,579,135</u>                            | <u>-</u>                            |
| Total                                          | <u>\$11,039,135</u> | <u>\$11,073,341</u>      | <u>100.00%</u>               | <u>\$5,138,677</u>                          | <u>\$5,934,664</u>                  |

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 2 – DEPOSITS AND INVESTMENTS (Continued)**

**Interest Rate Risk:**

As a means of managing its exposure to fair value losses arising from increasing interest rates, the Authority's investment policy limits the value of investments with maturities to no greater than five years.

**Credit Risk:**

The Authority limits the type of investments permitted as defined in the Municipality Authorities Act and the related trust indentures. Permitted investments are defined above. The Authority's investment policy is consistent with these limitations.

As of December 31, 2020, the Authority's investments were rated by Standard and Poor's as follows:

| Investment Type                    | Credit Quality<br>Rating | Percent of<br>Investment Type |
|------------------------------------|--------------------------|-------------------------------|
| U.S Government Agencies            | AAA                      | 100%                          |
| Corporate Bonds                    | AAA                      | 4.3%                          |
| Corporate Bonds                    | A+                       | 7.5%                          |
| Corporate Bonds                    | A                        | 1.8%                          |
| Corporate Bonds                    | A-                       | 14.7%                         |
| Corporate Bonds                    | BBB                      | 23.8%                         |
| Corporate Bonds                    | BBB+                     | 47.9%                         |
| Pennsylvania School District       |                          |                               |
| Liquid Asset Fund                  | AAA                      | 100%                          |
| Certificates of Deposit Negotiable | NR                       | 100%                          |

As of December 31, 2019, the Authority's investments were rated by Standard and Poor's as follows:

| Investment Type                    | Credit Quality<br>Rating | Percent of<br>Investment Type |
|------------------------------------|--------------------------|-------------------------------|
| Pennsylvania School District       |                          |                               |
| Liquid Asset Fund                  | AAA                      | 100%                          |
| Certificates of Deposit Negotiable | NR                       | 100%                          |

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 2 – DEPOSITS AND INVESTMENTS (Continued)**

**Fair Value:**

The Authority categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the assets. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs.

The Authority's investments in negotiable certificates of deposit, stocks, fixed income mutual funds, and equity mutual funds are valued using quoted market prices (Level 1 inputs).

The Authority's investments in U.S. Treasury Obligations, U.S. Government Agencies, and Corporate Bonds are valued using a matrix pricing model (Level 2 inputs).

|                                        | 12/31/2020    | Quoted Prices<br>in Active<br>Markets for<br>Identical<br>Assets<br>(Level 1) | Significant<br>Other<br>Observable<br>Inputs<br>(Level 2) | Significant<br>Unobservable<br>Inputs<br>(Level 3) |
|----------------------------------------|---------------|-------------------------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------|
| <b>Investments by fair value level</b> |               |                                                                               |                                                           |                                                    |
| <b>Debt securities</b>                 |               |                                                                               |                                                           |                                                    |
| Fixed Income Mutual Funds              | \$ 343,311    | \$ 343,311                                                                    | \$ -                                                      | \$ -                                               |
| U.S. Government Agency Obligations     | 67,168        | -                                                                             | 67,168                                                    | -                                                  |
| U.S. Government Treasury Obligations   | 375,000       | -                                                                             | 375,000                                                   | -                                                  |
| Corporate Bonds                        | 293,278       | -                                                                             | 293,278                                                   | -                                                  |
| Total debt securities                  | 1,078,757     | 343,311                                                                       | 735,446                                                   | -                                                  |
| <b>Equity securities</b>               |               |                                                                               |                                                           |                                                    |
| Negotiable Certificates of Deposit     | 7,885,571     | 7,885,571                                                                     | -                                                         | -                                                  |
| Stocks                                 | 1,265,583     | 1,265,583                                                                     | -                                                         | -                                                  |
| Equity Mutual Funds                    | 1,375,077     | 1,375,076                                                                     | -                                                         | -                                                  |
| Total equity securities                | 10,526,231    | 10,526,230                                                                    | -                                                         | -                                                  |
| Total investments by fair value        | \$ 11,604,988 | \$ 10,869,541                                                                 | \$ 735,446                                                | \$ -                                               |

**NOTE 3 – DEVELOPER ESCROW DEPOSIT**

The Authority requires developers to provide improvement security for system extensions. To meet this requirement, most developers provide such security in cash or a letter of credit. With one larger developer, however, the Authority has agreed to hold 350,896 shares of stock as collateral. Although the stock certificate is issued in the developer's name, the Authority holds the original stock certificate. Each quarter the fair value of the shares held is compared to total maintenance security required for all the developer's extensions to ensure that enough security is being held. An offsetting liability for all developer deposits is shown as a current and non-current liability on the Statement of Net Position.

**NOTE 4 – RECEIVABLES – DEVELOPER CONTRACTS**

As of December 31, 2020 the Authority has four agreements with customers, which allow for the financing of wastewater capital recovery fees over a multi-year period. The purpose of these arrangements is to make it more affordable for high-volume wastewater users to locate in the Authority service area. The total amounts of unpaid fees have been recorded as current (\$194,495) and long-term receivables (\$1,330,142). At year-end 2019, there were five agreements, and the unpaid fees were recorded as current (\$323,767) and long-term receivables (\$1,532,516). The Authority is recording interest income on the receivables in the year of receipt, which is not materially different than the accrual method.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 5 – CAPITAL ASSETS**

Capital assets of the Authority for 2020 and 2019 consist of the following:

|                                            | <b>Balance at<br/>12/31/19</b> | <b>Additions</b>     | <b>Retirements</b>     | <b>Balance at<br/>12/31/20</b> |
|--------------------------------------------|--------------------------------|----------------------|------------------------|--------------------------------|
| <b>Suburban Water Fund</b>                 |                                |                      |                        |                                |
| Non-depreciable Assets:                    |                                |                      |                        |                                |
| Land                                       | \$ 2,114,884                   | \$ 117,668           | \$ -                   | \$ 2,232,552                   |
| Construction in progress                   | 12,504,370                     | 5,043,931            | (10,405,080)           | 7,143,221                      |
| Total Capital Assets Not Being Depreciated | 14,619,254                     | 5,161,599            | (10,405,080)           | 9,375,773                      |
| Depreciable Assets:                        |                                |                      |                        |                                |
| Wells & Reservoirs                         | 9,709,252                      | 182,548              | -                      | 9,891,800                      |
| Transmission & Distribution Mains          | 80,498,411                     | 4,947,966            | -                      | 85,446,377                     |
| Service & Hydrants                         | 17,571,410                     | 101,136              | -                      | 17,672,546                     |
| Building Structure & Appurtenances         | 23,797,378                     | 3,341,949            | -                      | 27,139,327                     |
| Metering System                            | 10,672,043                     | 128,008              | -                      | 10,800,051                     |
| Equipment                                  | 7,769,506                      | 988,975              | (69,413)               | 8,689,068                      |
| Capacity                                   | 1,207,901                      | -                    | -                      | 1,207,901                      |
| Total Capital Assets Being Depreciated     | 151,225,901                    | 9,690,582            | (69,413)               | 160,847,070                    |
| Less Accumulated Depreciation for:         |                                |                      |                        |                                |
| Wells & Reservoirs                         | (3,365,888)                    | (180,796)            | -                      | (3,546,684)                    |
| Transmission & Distribution Mains          | (13,722,746)                   | (828,139)            | -                      | (14,550,885)                   |
| Service & Hydrants                         | (4,580,883)                    | (287,054)            | -                      | (4,867,937)                    |
| Building Structure & Appurtenances         | (9,294,442)                    | (671,272)            | -                      | (9,965,714)                    |
| Metering System                            | (5,332,817)                    | (466,262)            | -                      | (5,799,079)                    |
| Equipment                                  | (6,007,460)                    | (440,849)            | 69,413                 | (6,378,896)                    |
| Capacity                                   | (751,043)                      | (31,834)             | -                      | (782,877)                      |
| Total Accumulated Depreciation             | (43,055,279)                   | (2,906,206)          | 69,413                 | (45,892,072)                   |
| Total Net Capital Assets Being Depreciated | 108,170,622                    | 6,784,376            | -                      | 114,954,998                    |
| Total Capital Assets, Net                  | <u>\$ 122,789,876</u>          | <u>\$ 11,945,975</u> | <u>\$ (10,405,080)</u> | <u>\$ 124,330,771</u>          |

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 5 – CAPITAL ASSETS (Continued)**

|                                            | <u>Balance at<br/>12/31/19</u> | <u>Additions</u>     | <u>Retirements</u>     | <u>Balance at<br/>12/31/20</u> |
|--------------------------------------------|--------------------------------|----------------------|------------------------|--------------------------------|
| <b>Suburban Wastewater Fund</b>            |                                |                      |                        |                                |
| Non-depreciable Assets:                    |                                |                      |                        |                                |
| Land                                       | \$ 1,888,430                   | \$ 7,620             | \$ -                   | \$ 1,896,050                   |
| Capacity                                   | 953,831                        | -                    | (75,954)               | 877,877                        |
| Construction in progress                   | 18,974,421                     | 8,381,452            | (18,690,703)           | 8,665,170                      |
| Total Capital Assets Not Being Depreciated | 21,816,682                     | 8,389,072            | (18,766,657)           | 11,439,097                     |
| Depreciable Assets:                        |                                |                      |                        |                                |
| Interceptor & Collector Systems            | 38,259,619                     | 5,960                | -                      | 38,265,579                     |
| Wells & Reservoirs                         | 3,494,643                      | -                    | -                      | 3,494,643                      |
| Building Structure & Appurtenances         | 55,828,047                     | 5,473,549            | -                      | 61,301,596                     |
| Metering System                            | 429,778                        | -                    | -                      | 429,778                        |
| Equipment                                  | 23,175,902                     | 442,598              | (12,629)               | 23,605,871                     |
| Total Capital Assets Being Depreciated     | 121,187,989                    | 5,922,107            | (12,629)               | 127,097,467                    |
| Less Accumulated Depreciation for:         |                                |                      |                        |                                |
| Interceptor & Collector Systems            | (11,136,593)                   | (442,820)            | -                      | (11,579,413)                   |
| Wells & Reservoirs                         | (603,220)                      | (63,538)             | -                      | (666,758)                      |
| Building Structure & Appurtenances         | (20,126,163)                   | (1,883,192)          | -                      | (22,009,355)                   |
| Metering System                            | (264,381)                      | (11,319)             | -                      | (275,700)                      |
| Equipment                                  | (20,076,068)                   | (567,466)            | 12,629                 | (20,630,905)                   |
| Total Accumulated Depreciation             | (52,206,425)                   | (2,968,335)          | 12,629                 | (55,162,131)                   |
| Total Net Capital Assets Being Depreciated | 68,981,564                     | 2,953,772            | -                      | 71,935,336                     |
| Total Capital Assets, Net                  | <u>\$ 90,798,246</u>           | <u>\$ 11,342,844</u> | <u>\$ (18,766,657)</u> | <u>\$ 83,374,433</u>           |

|                                            | <u>Balance at<br/>12/31/19</u> | <u>Additions</u>    | <u>Retirements</u> | <u>Balance at<br/>12/31/20</u> |
|--------------------------------------------|--------------------------------|---------------------|--------------------|--------------------------------|
| <b>City Division Fund</b>                  |                                |                     |                    |                                |
| Non-depreciable Assets:                    |                                |                     |                    |                                |
| Construction in progress                   | \$ -                           | \$ -                | \$ -               | \$ -                           |
| Total Capital Assets Not Being Depreciated | -                              | -                   | -                  | -                              |
| Depreciable Assets:                        |                                |                     |                    |                                |
| Transportation Equipment                   | 2,996,782                      | -                   | (11,000)           | 2,985,782                      |
| Miscellaneous Equipment & Computers        | 248,981                        | -                   | -                  | 248,981                        |
| Office Furniture & Equipment               | 23,116                         | -                   | -                  | 23,116                         |
| Total Capital Assets Being Depreciated     | 3,268,879                      | -                   | (11,000)           | 3,257,879                      |
| Less Accumulated Depreciation for:         |                                |                     |                    |                                |
| Transportation Equipment                   | (2,180,625)                    | (173,090)           | 11,000             | (2,342,715)                    |
| Miscellaneous Equipment & Computers        | (229,441)                      | (16,619)            | -                  | (246,060)                      |
| Office Furniture & Equipment               | (23,116)                       | -                   | -                  | (23,116)                       |
| Total Accumulated Depreciation             | (2,433,182)                    | (189,709)           | 11,000             | (2,611,891)                    |
| Total Net Capital Assets Being Depreciated | 835,697                        | (189,709)           | -                  | 645,988                        |
| Total Capital Assets, Net                  | <u>\$ 835,697</u>              | <u>\$ (189,709)</u> | <u>\$ -</u>        | <u>\$ 645,988</u>              |

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 5 – CAPITAL ASSETS (Continued)**

|                                            | <u>Balance at<br/>12/31/19</u> | <u>Additions</u>     | <u>Retirements</u>     | <u>Balance at<br/>12/31/20</u> |
|--------------------------------------------|--------------------------------|----------------------|------------------------|--------------------------------|
| <b>Total Funds</b>                         |                                |                      |                        |                                |
| Total Capital Assets Not Being Depreciated | \$ 36,435,936                  | \$ 13,550,671        | \$ (29,171,737)        | \$ 20,814,870                  |
| Total Capital Assets Being Depreciated     | 275,682,769                    | 15,612,689           | (93,042)               | 291,202,416                    |
| Total Accumulated Depreciation             | (97,694,886)                   | (6,064,250)          | 93,042                 | (103,666,094)                  |
| Total Net Capital Assets Being Depreciated | 177,987,883                    | 9,548,439            | -                      | 187,536,322                    |
| Total Capital Assets, Net                  | <u>\$ 214,423,819</u>          | <u>\$ 23,099,110</u> | <u>\$ (29,171,737)</u> | <u>\$ 208,351,192</u>          |
|                                            |                                |                      |                        |                                |
|                                            | <u>Balance at<br/>12/31/18</u> | <u>Additions</u>     | <u>Retirements</u>     | <u>Balance at<br/>12/31/19</u> |
| <b>Suburban Water Fund</b>                 |                                |                      |                        |                                |
| Non-depreciable Assets:                    |                                |                      |                        |                                |
| Land                                       | \$ 2,043,265                   | \$ 71,619            | \$ -                   | \$ 2,114,884                   |
| Construction in progress                   | 5,023,631                      | 8,764,955            | (1,284,216)            | 12,504,370                     |
| Total Capital Assets Not Being Depreciated | 7,066,896                      | 8,836,574            | (1,284,216)            | 14,619,254                     |
| Depreciable Assets:                        |                                |                      |                        |                                |
| Wells & Reservoirs                         | 9,554,770                      | 154,482              | -                      | 9,709,252                      |
| Transmission & Distribution Mains          | 78,963,688                     | 1,534,723            | -                      | 80,498,411                     |
| Service & Hydrants                         | 17,144,642                     | 426,768              | -                      | 17,571,410                     |
| Building Structure & Appurtenances         | 23,632,286                     | 165,092              | -                      | 23,797,378                     |
| Metering System                            | 10,539,291                     | 132,752              | -                      | 10,672,043                     |
| Equipment                                  | 7,283,092                      | 486,414              | -                      | 7,769,506                      |
| Capacity                                   | 1,207,901                      | -                    | -                      | 1,207,901                      |
| Total Capital Assets Being Depreciated     | 148,325,670                    | 2,900,231            | -                      | 151,225,901                    |
| Less Accumulated Depreciation for:         |                                |                      |                        |                                |
| Wells & Reservoirs                         | (3,188,014)                    | (177,874)            | -                      | (3,365,888)                    |
| Transmission & Distribution Mains          | (12,927,020)                   | (795,726)            | -                      | (13,722,746)                   |
| Service & Hydrants                         | (4,298,105)                    | (282,778)            | -                      | (4,580,883)                    |
| Building Structure & Appurtenances         | (8,677,088)                    | (617,354)            | -                      | (9,294,442)                    |
| Metering System                            | (4,866,455)                    | (466,362)            | -                      | (5,332,817)                    |
| Equipment                                  | (5,800,726)                    | (206,734)            | -                      | (6,007,460)                    |
| Capacity                                   | (719,210)                      | (31,833)             | -                      | (751,043)                      |
| Total Accumulated Depreciation             | (40,476,618)                   | (2,578,661)          | -                      | (43,055,279)                   |
| Total Net Capital Assets Being Depreciated | 107,849,052                    | 321,570              | -                      | 108,170,622                    |
| Total Capital Assets, Net                  | <u>\$ 114,915,948</u>          | <u>\$ 9,158,144</u>  | <u>\$ (1,284,216)</u>  | <u>\$ 122,789,876</u>          |



**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 5 – CAPITAL ASSETS (Continued)**

|                                            | <b>Balance at<br/>12/31/18</b> | <b>Additions</b>    | <b>Retirements</b>    | <b>Balance at<br/>12/31/19</b> |
|--------------------------------------------|--------------------------------|---------------------|-----------------------|--------------------------------|
| <b>Suburban Wastewater Fund</b>            |                                |                     |                       |                                |
| Non-depreciable Assets:                    |                                |                     |                       |                                |
| Land                                       | \$ 1,837,891                   | \$ 50,539           | \$ -                  | \$ 1,888,430                   |
| Capacity                                   | 2,062,956                      | -                   | (1,109,125)           | 953,831                        |
| Construction in progress                   | 10,052,683                     | 10,671,538          | (1,749,800)           | 18,974,421                     |
| Total Capital Assets Not Being Depreciated | 13,953,530                     | 10,722,077          | (2,858,925)           | 21,816,682                     |
| Depreciable Assets:                        |                                |                     |                       |                                |
| Interceptor & Collector Systems            | 38,036,405                     | 223,214             | -                     | 38,259,619                     |
| Wells & Reservoirs                         | 3,494,643                      | -                   | -                     | 3,494,643                      |
| Building Structure & Appurtenances         | 54,910,406                     | 917,641             | -                     | 55,828,047                     |
| Metering System                            | 429,777                        | 1                   | -                     | 429,778                        |
| Equipment                                  | 22,551,923                     | 623,979             | -                     | 23,175,902                     |
| Total Capital Assets Being Depreciated     | 119,423,154                    | 1,764,835           | -                     | 121,187,989                    |
| Less Accumulated Depreciation for:         |                                |                     |                       |                                |
| Interceptor & Collector Systems            | (10,694,920)                   | (441,673)           | -                     | (11,136,593)                   |
| Wells & Reservoirs                         | (539,682)                      | (63,538)            | -                     | (603,220)                      |
| Building Structure & Appurtenances         | (18,332,952)                   | (1,793,211)         | -                     | (20,126,163)                   |
| Metering System                            | (252,576)                      | (11,805)            | -                     | (264,381)                      |
| Equipment                                  | (17,870,261)                   | (2,205,807)         | -                     | (20,076,068)                   |
| Total Accumulated Depreciation             | (47,690,391)                   | (4,516,034)         | -                     | (52,206,425)                   |
| Total Net Capital Assets Being Depreciated | 71,732,763                     | (2,751,199)         | -                     | 68,981,564                     |
| Total Capital Assets, Net                  | <u>\$ 85,686,293</u>           | <u>\$ 7,970,878</u> | <u>\$ (2,858,925)</u> | <u>\$ 90,798,246</u>           |
|                                            | <b>Balance at<br/>12/31/18</b> | <b>Additions</b>    | <b>Retirements</b>    | <b>Balance at<br/>12/31/19</b> |
| <b>City Division Fund</b>                  |                                |                     |                       |                                |
| Non-depreciable Assets:                    |                                |                     |                       |                                |
| Construction in progress                   | \$ -                           | \$ -                | \$ -                  | \$ -                           |
| Total Capital Assets Not Being Depreciated | -                              | -                   | -                     | -                              |
| Depreciable Assets:                        |                                |                     |                       |                                |
| Transportation Equipment                   | 2,920,803                      | 128,624             | (52,645)              | 2,996,782                      |
| Miscellaneous Equipment & Computers        | 248,981                        | -                   | -                     | 248,981                        |
| Office Furniture & Equipment               | 23,116                         | -                   | -                     | 23,116                         |
| Total Capital Assets Being Depreciated     | 3,192,900                      | 128,624             | (52,645)              | 3,268,879                      |
| Less Accumulated Depreciation for:         |                                |                     |                       |                                |
| Transportation Equipment                   | (1,977,573)                    | (255,697)           | 52,645                | (2,180,625)                    |
| Miscellaneous Equipment & Computers        | (192,758)                      | (36,683)            | -                     | (229,441)                      |
| Office Furniture & Equipment               | (23,116)                       | -                   | -                     | (23,116)                       |
| Total Accumulated Depreciation             | (2,193,447)                    | (292,380)           | 52,645                | (2,433,182)                    |
| Total Net Capital Assets Being Depreciated | 999,453                        | (163,756)           | -                     | 835,697                        |
| Total Capital Assets, Net                  | <u>\$ 999,453</u>              | <u>\$ (163,756)</u> | <u>\$ -</u>           | <u>\$ 835,697</u>              |

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 5 – CAPITAL ASSETS (Continued)**

|                                | <u>Balance at<br/>12/31/18</u> | <u>Additions</u> | <u>Retirements</u> | <u>Balance at<br/>12/31/19</u> |
|--------------------------------|--------------------------------|------------------|--------------------|--------------------------------|
| <b>Total Funds</b>             |                                |                  |                    |                                |
| Total Capital Assets Not Being |                                |                  |                    |                                |
| Depreciated                    | \$ 21,020,426                  | \$ 19,558,651    | \$ (4,143,141)     | \$ 36,435,936                  |
| Total Capital Assets Being     |                                |                  |                    |                                |
| Depreciated                    | 270,941,724                    | 4,793,690        | (52,645)           | 275,682,769                    |
| Total Accumulated Depreciation | (90,360,456)                   | (7,387,075)      | 52,645             | (97,694,886)                   |
| Total Net Capital Assets Being |                                |                  |                    |                                |
| Depreciated                    | 180,581,268                    | (2,593,385)      | -                  | 177,987,883                    |
| Total Capital Assets, Net      | \$ 201,601,694                 | \$ 16,965,266    | \$ (4,143,141)     | \$ 214,423,819                 |

In 2020 the Authority transferred \$12,772,706 from construction in progress to facilities planning costs in the Suburban Wastewater fund.

Under an agreement dated December 29, 1981, the Authority acquired 1,400,000 gallons per day of sewage treatment capacity ("grandfathered capacity") from the City of Allentown in addition to the amortized costs. This capacity was available to municipalities in Western Lehigh County for developments connected to the wastewater system. When a municipality required capacity to serve a business or residence, a fee was paid and recorded as a sale of capacity on the Authority's books. In addition, on an as-needed basis, the Authority purchases sewage treatment capacity from the City for non-grandfathered users ("General Pool Capacity"). This capacity is recorded on the books at the date of purchase and is reduced as such capacity is sold to the various municipalities and is included as a capital asset in the above table. At year-end 2020 and 2019 the total value of this capacity was \$877,877 and \$953,831 respectively.

**NOTE 6 – SERVICE CONCESSION ARRANGEMENT**

On August 7, 2013, the Lehigh County Authority ("LCA") entered into the Allentown Water and Sewer Utility System Concession and Lease Agreement (the "Service Concession Arrangement") with the City of Allentown, under which the LCA leased the Water and Sewer Utility Systems and retained the right and related obligation to operate those systems as the Concessionaire for 50 years. The LCA is required to operate and maintain the systems in accordance with the Service Concession Arrangement. The LCA entered into the Service Concession Arrangement to aid further regionalization of water and sewer services in the Lehigh Valley and to benefit the ratepayers with the overall organizational efficiencies. The LCA paid the City an upfront payment of \$211,332,218. The LCA also agreed to make required annual payments of \$500,000 starting in 2016, and every year thereafter, adjusted for inflation using the consumer price index. In addition to the required annual payments, the LCA must establish a Capex Fund (held in trust) no later than January 1, 2033. The LCA is required to make annual deposits into the Capex Fund in the amounts of \$1,000,000 for years 2033 to 2042, \$2,000,000 for years 2043 to 2052, and \$3,000,000 for years 2053 to 2062, adjusted for inflation using the consumer price index. These funds can be withdrawn by the LCA to pay costs incurred with respect to major capital improvements meeting certain requirements of the concession agreement. On the reversion date of the Water and Sewer Utility System, any moneys or securities held in the Capex Fund shall be applied first to pay any unpaid termination compensation, AA-Compensation and Concession Compensation and any amount remaining shall be remitted to the City. In conjunction with the execution of the service concession arrangement capital assets with an approximate fair value of \$1,485,804 were conveyed to LCA from the City.

This transaction meets the criteria for reporting under Governmental Accounting Standards Board (GASB) Statement No. 60 "Accounting and Financial Reporting for Service Concession Arrangements".

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 6 – SERVICE CONCESSION ARRANGEMENT (Continued)**

As a result, an intangible asset (Service Concession Arrangement) of \$246,205,824, representing: I) the upfront payment, less the fair value of conveyed capital assets, II) the discounted future annual payments, and III) the discounted future Capex Fund funding requirements was recorded by LCA on the execution date. The intangible asset will be amortized on the straight-line method over the life of the agreement (50 years). Cost of improvements to the facility during the term of the Service Concession Arrangement that increase capacity or efficiency of the facility are recorded as increases to the intangible asset and amortized systematically over the term of the arrangement. Costs of \$1,994,503 and \$1,716,684 were recorded as increases to the intangible asset in 2020 and 2019, respectively. Amortization expense in the amount of \$5,927,686 and \$5,543,128 was recognized in 2020 and 2019, respectively related to the intangible asset. The net book value of the asset was \$251,926,661 and \$241,126,076 at December 31, 2020 and 2019, respectively.

In addition to the intangible asset, LCA recorded an initial liability ("SCA Payable") of \$36,359,411 representing: I) the present value of future annual payments, and II) the present value of future Capex Fund deposit requirements on the execution date. This liability is adjusted annually to reflect the present value of the future payments. Interest expense of \$2,283,222 and \$2,198,697 was recognized in 2019 and 2018, respectively. The liability was \$47,694,490 and \$45,936,129 on December 31, 2019 and 2018, respectively.

As part of the Service Concession Agreement the LCA was required to offer employment to substantially all existing employees of the Water and Sewer System. The LCA was required to provide existing levels of certain benefits to these employees, including OPEB and Pension. This resulted in the adoption of a new OPEB plan in 2013 (Note 12) and the addition of new employees into the LCA Pension. The impact of the addition of these new employees into the plan resulted in an unfunded actuarial accrued liability of \$220,059 on August 8, 2013.

In 2020 the Authority and the City of Allentown entered into an agreement which modified certain terms of original Service Concession Arrangement. The modified terms included future payments to be made by the Authority to the City, as well as changes to the terms in which the Authority may increase rates to customers of the system. This agreement resulted in the Authority recording additions of \$14,733,768 to the intangible asset and SCA Payable liability in 2020.

**NOTE 7 – FACILITIES PLANNING COSTS**

Facilities Planning Costs for 2020 and 2019 consist of the following:

|                                          | <u>As of</u><br><u>12/31/19</u> | <u>Additions</u>    | <u>Retirements</u> | <u>As of</u><br><u>12/31/20</u> |
|------------------------------------------|---------------------------------|---------------------|--------------------|---------------------------------|
| <b>Suburban Water Fund</b>               |                                 |                     |                    |                                 |
| Facilities Planning Costs                | \$ 70,548                       | \$ 78,152           | \$ (20,430)        | \$ 128,270                      |
| Less Accumulated Amortization            | <u>(46,106)</u>                 | <u>(42,756)</u>     | <u>20,430</u>      | <u>(68,432)</u>                 |
| Total Suburban Water Facilities          |                                 |                     |                    |                                 |
| Costs - Net                              | <u>24,442</u>                   | <u>35,396</u>       | <u>-</u>           | <u>59,838</u>                   |
| <b>Suburban Wastewater Fund</b>          |                                 |                     |                    |                                 |
| Facilities Planning Costs                | 515,995                         | 12,772,706          | (131)              | 13,288,570                      |
| Less Accumulated Amortization            | <u>(457,406)</u>                | <u>(2,968,848)</u>  | <u>131</u>         | <u>(3,426,123)</u>              |
| Total Suburban Wastewater                |                                 |                     |                    |                                 |
| Facilities Planning Costs - Net          | <u>58,589</u>                   | <u>9,803,858</u>    | <u>-</u>           | <u>9,862,447</u>                |
| <b>Total Facilities Planning Costs -</b> |                                 |                     |                    |                                 |
| Net                                      | <u>\$ 83,031</u>                | <u>\$ 9,839,254</u> | <u>\$ -</u>        | <u>\$ 9,922,285</u>             |

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 7 – FACILITIES PLANNING COSTS (Continued)**

|                                                           | <u>As of<br/>12/31/18</u> | <u>Additions</u>   | <u>Retirements</u> | <u>As of<br/>12/31/19</u> |
|-----------------------------------------------------------|---------------------------|--------------------|--------------------|---------------------------|
| <b>Suburban Water Fund</b>                                |                           |                    |                    |                           |
| Facilities Planning Costs                                 | \$ 687,551                | \$ 23,209          | \$ (640,212)       | \$ 70,548                 |
| Less Accumulated Amortization                             | <u>(662,802)</u>          | <u>(23,516)</u>    | <u>640,212</u>     | <u>(46,106)</u>           |
| Total Suburban Water Facilities Planning Costs - Net      | <u>24,749</u>             | <u>(307)</u>       | <u>-</u>           | <u>24,442</u>             |
| <b>Suburban Wastewater Fund</b>                           |                           |                    |                    |                           |
| Facilities & Planning Costs                               | 508,900                   | 10,795             | (3,700)            | 515,995                   |
| Less Accumulated Amortization                             | <u>(406,073)</u>          | <u>(55,033)</u>    | <u>3,700</u>       | <u>(457,406)</u>          |
| Total Suburban Wastewater Planning Facilities Costs - Net | <u>102,827</u>            | <u>(44,238)</u>    | <u>-</u>           | <u>58,589</u>             |
| Total Planning Facilities Costs - Net                     | <u>\$ 127,576</u>         | <u>\$ (44,545)</u> | <u>\$ -</u>        | <u>\$ 83,031</u>          |

In 2020 the Authority transferred \$12,772,706 from construction in progress to facilities planning costs in the Suburban Wastewater fund.

**NOTE 8 – LONG-TERM DEBT**

Long-term debt for 2020 and 2019 consists of the following:

|                                                            | <u>Balance<br/>Outstanding As<br/>of 12/31/19</u> | <u>Additions /<br/>Accretions</u> | <u>Retirements</u>    | <u>Balance<br/>Outstanding As<br/>of 12/31/20</u> | <u>Principal Due<br/>Within One<br/>Year</u> |
|------------------------------------------------------------|---------------------------------------------------|-----------------------------------|-----------------------|---------------------------------------------------|----------------------------------------------|
| <b>Suburban Water Fund Bonds</b>                           |                                                   |                                   |                       |                                                   |                                              |
| Water Revenue Bonds Series of 2010 A                       | \$ 11,590,000                                     | \$ -                              | \$ -                  | \$ 11,590,000                                     | \$ -                                         |
| Water Revenue Bonds Series of 2011                         | 313,289                                           | -                                 | (122,062)             | 191,227                                           | 125,448                                      |
| Water Revenue Bonds Series of 2015                         | 2,161,555                                         | -                                 | (1,072,850)           | 1,088,705                                         | 1,088,705                                    |
| Water Revenue Bonds Series of 2015 A                       | 8,035,400                                         | -                                 | (318,100)             | 7,717,300                                         | 304,500                                      |
| Water Revenue Bonds Series of 2017                         | 14,900,000                                        | -                                 | (320,000)             | 14,580,000                                        | 330,000                                      |
| Subtotal                                                   | <u>\$ 37,000,244</u>                              | <u>\$ -</u>                       | <u>\$ (1,833,012)</u> | <u>\$ 35,167,232</u>                              | <u>\$ 1,848,653</u>                          |
| Add Bond Premium                                           | 359,339                                           | -                                 | (13,067)              | 346,272                                           |                                              |
| Total Suburban Water Fund Bonds                            | <u>\$ 37,359,583</u>                              | <u>\$ -</u>                       | <u>\$ (1,846,079)</u> | <u>\$ 35,513,504</u>                              |                                              |
| Less Current Maturities                                    |                                                   |                                   |                       | <u>(1,848,653)</u>                                |                                              |
| Net Suburban Water Fund Long-Term Bonds                    |                                                   |                                   |                       | <u>\$ 33,664,851</u>                              |                                              |
| <b>Notes from Direct Borrowings</b>                        |                                                   |                                   |                       |                                                   |                                              |
| 2007 State Pennworks Note                                  | \$ 1,479,091                                      | \$ -                              | \$ (176,182)          | \$ 1,302,909                                      | \$ 179,737                                   |
| 2011 Pennsylvania Infrastructure Investment Authority Note | 1,007,396                                         | -                                 | (72,197)              | 935,199                                           | 73,295                                       |
| Total Suburban Water Fund Direct Borrowings                | <u>\$ 2,486,487</u>                               | <u>\$ -</u>                       | <u>\$ (248,379)</u>   | <u>\$ 2,238,108</u>                               | <u>\$ 253,032</u>                            |
| Less Current Maturities                                    |                                                   |                                   |                       | <u>(253,032)</u>                                  |                                              |
| Net Suburban Water Fund Long-Term Direct Borrowings        |                                                   |                                   |                       | <u>\$ 1,985,076</u>                               |                                              |

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 8 – LONG-TERM DEBT (Continued)**

|                                                 | Balance<br>Outstanding As of<br>12/31/19 | Additions /<br>Accretions | Retirements      | Balance<br>Outstanding As<br>of 12/31/20 | Principal Due<br>Within One<br>Year |
|-------------------------------------------------|------------------------------------------|---------------------------|------------------|------------------------------------------|-------------------------------------|
| <b>Suburban Wastewater Fund</b>                 |                                          |                           |                  |                                          |                                     |
| <b>Bonds</b>                                    |                                          |                           |                  |                                          |                                     |
| 2011 Sewer Revenue Bonds                        |                                          |                           |                  |                                          |                                     |
| Series A                                        | \$ 1,481,997                             | \$ -                      | \$ (114,905)     | \$ 1,367,092                             | \$ 114,595                          |
| Less Current Maturities                         |                                          |                           |                  | (114,595)                                |                                     |
| Net Suburban Wastewater Fund                    |                                          |                           |                  |                                          |                                     |
| Long-Term Bonds                                 |                                          |                           |                  | \$ 1,252,497                             |                                     |
| <b>Notes from Direct Borrowings</b>             |                                          |                           |                  |                                          |                                     |
| 2009 Pennsylvania Infrastructure                |                                          |                           |                  |                                          |                                     |
| Investment Authority Note                       | \$ 3,204,180                             | \$ -                      | \$ (253,464)     | \$ 2,950,716                             | \$ 259,995                          |
| 2013 Pennsylvania Infrastructure                |                                          |                           |                  |                                          |                                     |
| Investment Authority Note                       | 2,158,904                                | -                         | (135,942)        | 2,022,962                                | 138,009                             |
| 2015 Pennsylvania Infrastructure                |                                          |                           |                  |                                          |                                     |
| Investment Authority Note                       | 666,533                                  | -                         | (37,755)         | 628,778                                  | 36,771                              |
| Total Suburban Wastewater Fund Direct Borrowing | \$ 6,029,617                             | \$ -                      | \$ (427,161)     | \$ 5,602,456                             | \$ 434,775                          |
| Less Current Maturities                         |                                          |                           |                  | (434,775)                                |                                     |
| Net Suburban Wastewater Fund                    |                                          |                           |                  |                                          |                                     |
| Long-Term Direct Borrowings                     |                                          |                           |                  | \$ 5,167,681                             |                                     |
| Total Net Suburban Water Fund Long Term         |                                          |                           |                  | \$ 6,420,178                             |                                     |
| <b>City Division Fund</b>                       |                                          |                           |                  |                                          |                                     |
| <b>Bonds</b>                                    |                                          |                           |                  |                                          |                                     |
| 2013 Water and Sewer Revenue                    |                                          |                           |                  |                                          |                                     |
| Bonds, Series A                                 | \$ 245,590,000                           | \$ -                      | \$ (137,975,000) | \$ 107,615,000                           | \$ -                                |
| 2013 Water and Sewer Capital                    |                                          |                           |                  |                                          |                                     |
| Appreciation Revenue Bonds,                     |                                          |                           |                  |                                          |                                     |
| Series B                                        | 61,643,216                               | 3,574,904                 | (915,000)        | 64,303,120                               | 1,339,642                           |
| 2018 Water and Sewer Revenue                    |                                          |                           |                  |                                          |                                     |
| Bonds (Federally Taxable)                       | 17,940,000                               | -                         | (17,940,000)     | -                                        | -                                   |
| 2020 Water and Sewer Revenue                    |                                          |                           |                  |                                          |                                     |
| Bonds                                           | -                                        | 161,035,000               | -                | 161,035,000                              | -                                   |
| Subtotal                                        | \$ 325,173,216                           | \$ 164,609,904            | \$ (156,830,000) | \$ 332,953,120                           | \$ 1,339,642                        |
| Less Bond Discount                              | (8,865,423)                              | -                         | 4,398,843        | (4,466,580)                              |                                     |
| Total City Division Fund Bonds                  | \$ 316,307,793                           | \$ 164,609,904            | \$ (152,431,157) | 328,486,540                              |                                     |
| Less Current Maturities                         |                                          |                           |                  | (1,339,642)                              |                                     |
| Net City Division Fund Long-Term Bonds          |                                          |                           |                  | \$ 327,146,898                           |                                     |
| <b>Direct Borrowings</b>                        |                                          |                           |                  |                                          |                                     |
| 2020 Series A Refunding Bonds                   | \$ -                                     | \$ 18,150,000             | \$ (1,125,000)   | \$ 17,025,000                            | \$ 1,175,000                        |
| Less Current Maturities                         |                                          |                           |                  | (1,175,000)                              |                                     |
| Net City Division Fund Long-Term                |                                          |                           |                  |                                          |                                     |
| Direct Borrowings                               |                                          |                           |                  | \$ 15,850,000                            |                                     |
| Total Net City Division Fund Long Term          |                                          |                           |                  | \$ 342,996,898                           |                                     |
| Total Net Long-Term Debt                        |                                          |                           |                  | \$ 385,067,003                           |                                     |

|                                 | Balance<br>Outstanding As<br>of 12/31/18 | Additions /<br>Accretions | Retirements    | Balance<br>Outstanding As<br>of 12/31/19 | Principal Due<br>Within One<br>Year |
|---------------------------------|------------------------------------------|---------------------------|----------------|------------------------------------------|-------------------------------------|
| <b>Suburban Water Fund</b>      |                                          |                           |                |                                          |                                     |
| <b>Bonds</b>                    |                                          |                           |                |                                          |                                     |
| Water Revenue Bonds             |                                          |                           |                |                                          |                                     |
| Series of 2010 A                | \$ 11,590,000                            | \$ -                      | \$ -           | \$ 11,590,000                            | \$ -                                |
| Water Revenue Bonds             |                                          |                           |                |                                          |                                     |
| Series of 2011                  | 432,034                                  | -                         | (118,745)      | 313,289                                  | 122,044                             |
| Water Revenue Bonds             |                                          |                           |                |                                          |                                     |
| Series of 2015                  | 3,212,735                                | -                         | (1,051,180)    | 2,161,555                                | 1,072,850                           |
| Water Revenue Bonds             |                                          |                           |                |                                          |                                     |
| Series of 2015 A                | 8,346,800                                | -                         | (311,400)      | 8,035,400                                | 318,100                             |
| Water Revenue Bonds             |                                          |                           |                |                                          |                                     |
| Series of 2017                  | 14,900,000                               | -                         | -              | 14,900,000                               | 320,000                             |
| Subtotal                        | \$ 38,481,569                            | \$ -                      | \$ (1,481,325) | \$ 37,000,244                            | \$ 1,832,994                        |
| Add Bond Premium                | 372,406                                  | -                         | (13,067)       | 359,339                                  |                                     |
| Total Suburban Water Fund Bonds | \$ 38,853,975                            | \$ -                      | \$ (1,494,392) | \$ 37,359,583                            |                                     |
| Less Current Maturities         |                                          |                           |                | (1,832,994)                              |                                     |
| Net Suburban Water Fund         |                                          |                           |                |                                          |                                     |
| Long-Term Bonds                 |                                          |                           |                | \$ 35,526,589                            |                                     |

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 8 – LONG-TERM DEBT (Continued)**

|                                                                         | Balance<br>Outstanding As of<br><u>12/31/18</u> | Additions /<br><u>Accretions</u> | <u>Retirements</u> | Balance<br>Outstanding As of<br><u>12/31/19</u> | Principal Due<br>Within One<br><u>Year</u> |
|-------------------------------------------------------------------------|-------------------------------------------------|----------------------------------|--------------------|-------------------------------------------------|--------------------------------------------|
| <b>Suburban Water Fund</b>                                              |                                                 |                                  |                    |                                                 |                                            |
| <b>Notes from Direct Borrowings</b>                                     |                                                 |                                  |                    |                                                 |                                            |
| 2007 State Pennworks<br>Note                                            | 1,651,787                                       | -                                | (172,696)          | 1,479,091                                       | 176,181                                    |
| 2011 Pennsylvania Infrastructure<br>Investment Authority Note           | 1,078,512                                       | -                                | (71,116)           | 1,007,396                                       | 72,197                                     |
| Total Suburban Water Fund Direct Borrowings                             | \$ 2,730,299                                    | \$ -                             | \$ (243,812)       | \$ 2,486,487                                    | \$ 248,378                                 |
| Less Current Maturities                                                 |                                                 |                                  |                    | (248,378)                                       |                                            |
| Net Suburban Water Fund<br>Long-Term Direct Borrowings                  |                                                 |                                  |                    | \$ 2,238,109                                    |                                            |
| Total Net Suburban Water Fund Long-Term                                 |                                                 |                                  |                    | \$ 37,764,698                                   |                                            |
| <b>Suburban Wastewater Fund</b>                                         |                                                 |                                  |                    |                                                 |                                            |
| <b>Sewer Revenue Bonds</b>                                              |                                                 |                                  |                    |                                                 |                                            |
| 2011 Sewer Revenue Bonds<br>Series A                                    | \$ 1,560,901                                    | \$ -                             | \$ (78,904)        | \$ 1,481,997                                    | \$ 114,905                                 |
| Less Current Maturities                                                 |                                                 |                                  |                    | (114,905)                                       |                                            |
| Net Suburban Wastewater Fund<br>Long-Term Bonds                         |                                                 |                                  |                    | \$ 1,367,092                                    |                                            |
| <b>Direct Borrowings</b>                                                |                                                 |                                  |                    |                                                 |                                            |
| 2009 Pennsylvania Infrastructure<br>Investment Authority Note           | \$ 3,451,275                                    | \$ -                             | \$ (247,095)       | \$ 3,204,180                                    | \$ 253,464                                 |
| 2013 Pennsylvania Infrastructure<br>Investment Authority Note           | 2,294,634                                       | -                                | (135,730)          | 2,158,904                                       | 135,942                                    |
| 2015 Pennsylvania Infrastructure<br>Investment Authority Note           | 703,913                                         | -                                | (37,380)           | 666,533                                         | 37,756                                     |
| Total Suburban Wastewater Fund Direct Borrowings                        | \$ 6,449,822                                    | \$ -                             | \$ (420,205)       | \$ 6,029,617                                    | \$ 427,162                                 |
| Less Current Maturities                                                 |                                                 |                                  |                    | (427,162)                                       |                                            |
| Net Suburban Wastewater Fund<br>Long-Term Direct Borrowings             |                                                 |                                  |                    | \$ 5,602,455                                    |                                            |
| Net Suburban Wastewater Fund Long Term                                  |                                                 |                                  |                    | \$ 6,969,547                                    |                                            |
| <b>City Division Fund</b>                                               |                                                 |                                  |                    |                                                 |                                            |
| <b>Bonds</b>                                                            |                                                 |                                  |                    |                                                 |                                            |
| 2013 Water and Sewer Revenue<br>Bonds, Series A                         | \$ 245,590,000                                  | \$ -                             | \$ -               | \$ 245,590,000                                  | \$ -                                       |
| 2013 Water and Sewer Capital<br>Appreciation Revenue Bonds,<br>Series B | 58,700,641                                      | 3,392,575                        | (450,000)          | 61,643,216                                      | 882,406                                    |
| 2018 Water and Sewer Revenue<br>Bonds (Federally Taxable)               | 18,735,000                                      | -                                | (795,000)          | 17,940,000                                      | 955,000                                    |
| Subtotal                                                                | \$ 304,290,641                                  | \$ 3,392,575                     | \$ (1,245,000)     | \$ 325,173,216                                  | \$ 1,837,406                               |
| Less Bond Discount                                                      | (9,182,043)                                     | -                                | 316,620            | (8,865,423)                                     |                                            |
| Total City Division Fund Debt                                           | \$ 295,108,598                                  | \$ 3,392,575                     | \$ (928,380)       | 316,307,793                                     |                                            |
| Less Current Maturities                                                 |                                                 |                                  |                    | (1,837,406)                                     |                                            |
| Net City Division Fund Long-Term Debt                                   |                                                 |                                  |                    | \$ 314,470,387                                  |                                            |
| Total Net Long-Term Debt                                                |                                                 |                                  |                    | \$ 359,204,632                                  |                                            |

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 8 – LONG-TERM DEBT (Continued)**

The Authority's direct borrowings contain provisions that in the event of certain defaults the notes or bonds become immediately due and payable at the discretion of the lenders.

A summary of the long-term payable is provided in the ensuing paragraphs.

**A. Suburban Division Water Fund**

On December 21, 2011, the Authority issued \$1,185,400 of 2011 Water Bonds to refinance the balance of the 2001 Pennvest loan and to cover financing costs. The maturity date for the new bonds remained at July 1, 2022 and carries a fixed interest rate of 2.75%. The loan is secured by a pledge of the gross receipts and revenues of the water system and resulted in a 2% present value savings of refunded principal.

On October 10, 2007 the Authority entered into an agreement with the Commonwealth of Pennsylvania for a "Pennworks" loan and grant. The \$3,000,000 loan was used to reimburse the Authority for a portion of the cost of various Water projects with a \$2,000,000 grant also available to cover additional expenditures. The loan that matures on November 1, 2027 are secured by water system revenues and carry a 2% interest rate.

On March 30, 2010, the Authority issued Series A taxable Build America Bonds in the amount of \$11,590,000 to be used to finance water capital projects over the next several years. The bond issue matures in November 2031 and carries a net effective interest rate of 3.75876% when considering a 35% subsidy interest expense return from the Federal government. Water system revenue serves as collateral for the bonds.

On May 20, 2015, the Authority issued Water Revenue Bond Series 2015 in the amount of \$6,486,000. The bonds were issued to currently refund the 2010 outstanding water revenue bonds Series AA bonds and to fund issuance costs. The bond carries a fixed interest rate of 1.6% per annum, payable commencing on November 1, 2015 and semi-annually thereafter on the interest payment date until November 1, 2020, at which time the fixed rate shall be reset by the Bank to a floating or variable interest rate equivalent to the rate which is 60% of the National Prime Rate of Interest as published in the Wall Street Journal. At no time and in no instance shall the variable interest rate exceed 2.75% during the variable rate period. The bond matures in November 2021 and is secured by a pledge of system revenues. The refunding decreased the Authority's total debt service payments by \$755,492 and resulted in an economic gain of \$757,165.

In determining the variable interest rate for the issue, the Authority used the National Prime Interest Rate as published in the Wall Street Journal as of December 31, 2020 to calculate an applicable effective rate of 1.95%.

On October 29, 2015 the Authority issued Water Revenue Bond Series A of 2015 in the amount of \$9,232,000. The bond was issued to currently refund the 2008 outstanding water revenue bond and to fund issuance costs. The bond carries a fixed interest rate of 2.41% per annum, payable commencing on May 1, 2016 and semi-annually thereafter on the interest payment date until November 1, 2023, at which time the fixed rate shall be reset to a floating or variable interest rate equivalent to the rate which is 66% of the 30 day London Inter Bank Offering Rate ("30 Day LIBOR) plus 135 basis points or its equivalent. At no time and in no instance shall the variable interest rate exceed 3.75% during the variable rate period. The bond matures in November 2026 and is secured by a pledge of system revenues. The refunding increased the Authority's total debt service payments by \$719,340 and resulted in an economic loss of \$684,295. In determining the variable interest rate for the issue, the Authority used the 30 Day LIBOR as of December 31, 2020 to calculate an applicable effective rate of 1.44830%.

On June 29, 2011, Pennvest approved a \$1,660,303 loan to the Authority for a Water Meter Replacement program. Terms of the loan provide that the Authority will be reimbursed up to the limit of the loan amount. Interest payments commenced on November 1, 2011. Principal payments began on October 1, 2012. The loan carries a 1% interest rate for the first five years and a 1.51% annual interest rate for the remainder of the 20-year term. The debt is secured by the project collateral.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 8 – LONG-TERM DEBT (Continued)**

On June 20, 2017, the Authority issued Water Revenue Bond Series 2017 in the amount of \$14,900,000. The bond was issued to fund capital projects under the Authority's Capital Improvements Program, fund a deposit to the Debt Service Reserve Fund, and pay the costs related to the issuance of the Bonds. Interest payments commenced on November 1, 2017 and are payable every May and November. Principal payments begin on November 1, 2020 and commence on November 1, 2047. The bonds carry fixed annual interest rates ranging from 3% to 5%.

The schedule of principal maturity and annual debt service for the suburban water fund is as follows:

| <u>Year</u> | <u>Bonds</u>                |                           | <u>Notes from<br/>Direct Borrowings</u> |                           |
|-------------|-----------------------------|---------------------------|-----------------------------------------|---------------------------|
|             | <u>Principal<br/>Amount</u> | <u>Total<br/>Interest</u> | <u>Principal<br/>Amount</u>             | <u>Total<br/>Interest</u> |
| 2021        | \$ 1,848,653                | \$ 1,359,586              | \$ 253,032                              | \$ 38,033                 |
| 2022        | 1,880,879                   | 1,317,878                 | 257,775                                 | 33,290                    |
| 2023        | 1,939,000                   | 1,271,443                 | 262,607                                 | 28,458                    |
| 2024        | 1,926,500                   | 1,180,826                 | 267,531                                 | 23,533                    |
| 2025        | 2,004,800                   | 1,140,139                 | 272,550                                 | 18,515                    |
| 2026-2030   | 12,522,400                  | 4,457,266                 | 774,603                                 | 34,233                    |
| 2031-2035   | 4,950,000                   | 1,739,812                 | 150,010                                 | 2,085                     |
| 2036-2040   | 2,985,000                   | 1,168,357                 | -                                       | -                         |
| 2041-2045   | 3,525,000                   | 632,136                   | -                                       | -                         |
| 2046-2047   | 1,585,000                   | 80,662                    | -                                       | -                         |
|             | <u>\$ 35,167,232</u>        | <u>\$ 14,348,105</u>      | <u>\$ 2,238,108</u>                     | <u>\$ 178,147</u>         |

**B. Suburban Wastewater Fund**

On December 21, 2011, the balance of the 2000 Pennvest loan was refinanced by the 2011 Sewer Series A bonds. The new bonds (\$2,166,100) also provided additional funds to pay for a portion of the Vera Cruz sewer project and to cover bond issue financing costs. The maturity date for the new bonds is November 1, 2031. The revenues of the common rate collector systems are serving as loan collateral. The loan carries an interest rate of 2.25% for the first 5 years and a variable rate thereafter, which equates to 70% of the 10 year average prime rate with 3% minimum and 5.5% maximum rate caps.

On November 16, 2009, the Pennsylvania Infrastructure Investment Authority (Pennvest) approved a loan of \$5,878,847 to the Authority to fund the design and construction of a 3 million gallon flow equalization basin and pump station. The purpose of the project is to shave off and hold wet weather flows to address system capacity deficiencies during precipitation events. The loan carries an annual interest rate of 1.274% for the first five years and 2.547% for the remainder of the loan.

The loan is secured by a pledge of gross receipts and revenues obtained from users of the Western Lehigh Interceptor System. The Authority may not prepay at any time all or any portion of the unpaid principal without the prior written consent of Pennvest. As of December 31, 2012, the Authority received all (\$5,389,323) of the reimbursements for project expenditures. The Authority began paying both interest and principal on February 1, 2011.

On June 19, 2013 the Pennsylvania Infrastructure Investment Authority (Pennvest) approved a loan of \$2,931,170 to the Authority to fund the design and construction of a 40,000 gpd wastewater treatment plant to be built at Arcadia West to replace the existing plant. As of December 31, 2015 the Authority received all (\$2,931,170) of the reimbursement for project expenditures. The loan carries an interest rate of 1% for the first 5 years and 1.51% thereafter, for a period of 15 years.



**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 8 – LONG-TERM DEBT (Continued)**

On February 25, 2015 the Pennsylvania Infrastructure Investment Authority (Pennvest) approved a loan of \$1,000,000 to the Authority to fund the Wynnewood Terrace pump station and force main replacement. The loan carries an interest rate of 1% for the first 5 years and 1.743% thereafter, for a period of 15 years.

The schedule of principal maturity and debt service for the suburban wastewater fund is as follows:

| <u>Year</u> | <u>Bonds</u>                |                           | <u>Notes from<br/>Direct Borrowings</u> |                           |
|-------------|-----------------------------|---------------------------|-----------------------------------------|---------------------------|
|             | <u>Principal<br/>Amount</u> | <u>Total<br/>Interest</u> | <u>Principal<br/>Amount</u>             | <u>Total<br/>Interest</u> |
| 2021        | \$ 114,595                  | \$ 72,843                 | \$ 434,775                              | \$ 111,229                |
| 2022        | 118,358                     | 66,456                    | 443,723                                 | 102,955                   |
| 2023        | 122,605                     | 59,840                    | 453,375                                 | 93,303                    |
| 2024        | 127,003                     | 52,987                    | 463,248                                 | 83,431                    |
| 2025        | 131,560                     | 45,888                    | 473,347                                 | 73,332                    |
| 2026-2030   | 732,078                     | 113,708                   | 2,526,510                               | 206,879                   |
| 2031-2035   | 20,893                      | 237                       | 795,770                                 | 25,289                    |
| 2036        | -                           | -                         | 11,708                                  | 34                        |
|             | <u>\$ 1,367,092</u>         | <u>\$ 411,959</u>         | <u>\$ 5,602,456</u>                     | <u>\$ 696,452</u>         |

**C. CITY DIVISION FUND**

On July 31, 2013, the Authority issued, in aggregate \$307,683,599 of Water and Sewer Revenue Bonds comprised of \$245,590,000 of Series 2013A Revenue Bonds, \$43,358,599 of Series 2013B Capital Appreciation Revenue Bonds and \$18,735,000 of Series 2013C Federally Taxable Revenue Bonds. The bonds were issued at a discount of \$10,923,458.

The 2013 bonds were issued to provide funding for i) a single, up-front concession and lease payment to the City of Allentown pursuant to the Allentown Water and Sewer utility system Concession and Lease Agreement, ii) projected capital improvements to the Concessioned System, iii) deposits to certain reserve and other funds, and iv) transaction costs and expenses incurred in connection with the acquisition of the Concessioned System and the issuance of the 2013 Bonds.

The 2013 Bonds were issued under and secured by a Trust Indenture between the Authority and Manufacturers and Traders Trust Company, the concession trustee. The 2013 Bonds are payable from and secured by a pledge and an assignment by the authority of all the concessionaire interest, including revenues derived from operating the Concessioned System certain service charges imposed by the Authority for use of the Concessioned System and certain payments received from the municipal customers of the Concessioned System.

The 2013 Bonds are also secured by a Debt Service Reserve Fund initially funded at \$28,090,273 and held by the Concession Trustee and other funds including an Operations and Maintenance Reserve Fund and a Major Maintenance Reserve Fund in the amounts of \$9,199,515 and \$7,500,000 respectively. These funds are available to pay shortfalls in the scheduled debt service on the 2013 Bonds.

The Series 2013A bonds bear interest of 5% - 5.125% with final maturity on December 1, 2047. The Series 2013 Appreciation bonds bear interest of 3.21% - 6.21% with final maturity on December 1, 2038.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 8 – LONG TERM DEBT (Continued)**

In October 2018, the Authority issued Water and Sewer Revenue Bond, Series 2018 (Federally Taxable) in the amount of \$18,735,000. Proceeds of the bond together with other funds of the Authority were used to currently refund the 2013 Series C bonds, fund a debt service reserve, and pay the costs and expenses of issuing the Bond. The bond carries a fixed interest rate of 4.75% per annum, payable commencing on June 1, 2019 and semi-annually thereafter on the interest payment date until June 1, 2029, at which time the fixed rate shall be reset to a floating or variable interest rate of one month LIBOR plus 165 basis points. At no time and in no instance shall the variable interest rate exceed 6.5% during the variable rate period. The bond matures on December 1, 2033 and is secured by the Authority's interest in the Concessioned System. The refunding increased the Authority's total debt service payments by \$7,817,099 and resulted in an economic loss of \$2,503,652.

In September 2020, the Authority issued Water and Sewer Revenue Bonds, Series 2020 (Federally Taxable) in the amount of \$161,035,000. Proceeds of the bonds together with other funds of the Authority were used to (i) advance refund a portion of the Authority's Water and Sewer Revenue Bond (City of Allentown Concession), Series 2013A; (ii) fund a debt service reserve fund with respect to the 2020 Bonds; and (iii) pay transaction costs and expenses in connection with the issuance of the bonds. Interest rates on the bonds range from 3.232% to 3.632% per annum, payable commencing on December 1, 2020 and semi-annually thereafter on the interest payment date until maturity. The bonds are payable from and secured by a pledge and assignment by the Authority of all the Concessionaire Interest in and to the Concessioned System created by the Concession Agreement. The refunding resulted in a deferred refunding loss of \$27,792,709, an increase in the Authority's total debt service payments of \$55,617,288, and resulted in an economic gain of \$9,929,809.

In October 2020, the Authority issued Water and Sewer Revenue Bond, Series A of 2020 (Federally Taxable) in the amount of \$18,150,000. Proceeds of the bond together with other funds of the Authority were used to currently refund the 2018 Series bonds, fund a debt service reserve, and pay the costs and expenses of issuing the Bond. The bond carries a fixed interest rate of 2.90% per annum, payable commencing on December 1, 2020 and semi-annually thereafter on the interest payment date until June 1, 2026, at which time the fixed rate shall be reset to 5.00%. The bond matures on December 1, 2033 and is secured by the Authority's interest in the Concessioned System. The refunding decreased the Authority's total debt service payments by \$1,928,034 and resulted in an economic gain of \$1,419,618.

The schedule of principal maturity and debt service for the City division is as follows:

| <u>Year</u> | <b>Bonds</b>                |                           | <b>Notes from<br/>Direct Borrowings</b> |                           |
|-------------|-----------------------------|---------------------------|-----------------------------------------|---------------------------|
|             | <u>Principal<br/>Amount</u> | <u>Total<br/>Interest</u> | <u>Principal<br/>Amount</u>             | <u>Total<br/>Interest</u> |
| 2021        | \$ 1,339,642                | \$ 11,106,719             | \$ 1,175,000                            | \$ 493,726                |
| 2022        | 1,735,649                   | 11,210,712                | 1,210,000                               | 459,650                   |
| 2023        | 2,097,077                   | 11,364,284                | 1,245,000                               | 424,560                   |
| 2024        | 2,421,819                   | 11,574,542                | 1,280,000                               | 388,456                   |
| 2025        | 2,710,368                   | 11,835,993                | 1,320,000                               | 351,336                   |
| 2026-2030   | 16,754,950                  | 64,936,856                | 6,245,000                               | 2,105,000                 |
| 2031-2035   | 20,994,037                  | 80,287,769                | 4,550,000                               | 462,750                   |
| 2036-2040   | 37,469,578                  | 83,482,728                | -                                       | -                         |
| 2041-2045   | 62,220,000                  | 43,475,975                | -                                       | -                         |
| 2046-2050   | 58,565,000                  | 28,851,309                | -                                       | -                         |
| 2051-2055   | 65,455,000                  | 18,105,701                | -                                       | -                         |
| 2056-2059   | 61,190,000                  | 5,655,024                 | -                                       | -                         |
|             | <u>\$ 332,953,120</u>       | <u>\$ 381,887,612</u>     | <u>\$ 17,025,000</u>                    | <u>\$ 4,685,478</u>       |

On December 31, 2020 \$137,975,000 of bonds outstanding were considered defeased.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 9 – INTERFUND BALANCES**

During its operations, the Authority has numerous transactions between funds to finance operations and provide services. The Suburban Water fund has financed the construction and expansion of the Authority's Operation Center and Information Technology Upgrades and is being reimbursed over time by the Suburban Wastewater fund for its share of the costs. Certain cost incurred by the City Division fund, were initially paid by the Suburban Water fund, and will be reimbursed to the Suburban Water fund from the City Division fund. For reporting purposes, the transactions of the Internal Service are included with the Suburban Water and Suburban Wastewater and City Division funds on a proportional basis. The interfund receivables and payables are as follows:

| <b>Fund</b>         | <b>2020</b>                             |                                      | <b>2019</b>                             |                                      |
|---------------------|-----------------------------------------|--------------------------------------|-----------------------------------------|--------------------------------------|
|                     | <b><u>Interfund<br/>Receivables</u></b> | <b><u>Interfund<br/>Payables</u></b> | <b><u>Interfund<br/>Receivables</u></b> | <b><u>Interfund<br/>Payables</u></b> |
| Enterprise Funds:   |                                         |                                      |                                         |                                      |
| City Division       | \$ -                                    | \$ 36,211                            | \$ -                                    | \$ 29,516                            |
| Suburban Water      | 1,619,206                               | -                                    | 1,599,692                               | -                                    |
| Suburban Wastewater | -                                       | 1,582,995                            | -                                       | 1,570,176                            |
| Total               | <u>\$ 1,619,206</u>                     | <u>\$ 1,619,206</u>                  | <u>\$ 1,599,692</u>                     | <u>\$ 1,599,692</u>                  |

**NOTE 10 – DEVELOPER DEPOSITS**

Developer Deposits represent funds received by the Authority from developers to cover the costs of plan reviews and project inspections and to ensure that infrastructure improvements are constructed in accordance with approved plans. Deposits for developments to be completed within one year are recorded as current liabilities in the amount of \$484,602 and \$577,732 as of December 31, 2020 and 2019, respectively. Deposits for developments not expected to be completed by the end of one year are recorded as long-term liabilities in the amount of \$4,214,562 and \$4,239,816 as of December 31, 2020 and 2019, respectively.

**NOTE 11 – COMMITMENTS & CONTINGENCIES**

In addition to the commitments disclosed in Note 6 related to the Service Concession Arrangement, the Authority as of December 31, 2020, through contractual agreements, had construction commitments of \$6,347,837 for various capital projects as compared to \$13,128,891 at year-end 2019. Operating and Capital reserves, construction note proceeds and grants will fund these expenditures.

The effects of the Coronavirus pandemic continue to evolve and are dependent upon future developments, the impact of the Coronavirus on the Authority's operations and financial results are uncertain at this time. Because of the Coronavirus the Authority suspended normal collection activities such as applying later fees, and terminating service to non-paying customers. This has resulted in an increase in customer receivables and an increase in the Authority's allowance for uncollectible accounts.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 12 – OTHER POSTEMPLOYMENT BENEFITS**

**A. Health & Welfare Plan for Suburban Employees (Suburban Plan)**

Suburban Plan:

*Plan Description:* The Authority through the Pennsylvania Municipal Health Insurance Cooperative offers a single employer defined benefit plan to eligible retirees for health insurance benefits. The Suburban Plan is reported as the Post Employment Health Trust Fund in the accompanying financial statements and does not issue stand-alone statements.

Management of the Suburban Plan is vested in the Authority's nine members Board of Directors, who are appointed by the Lehigh County Executive and approved by the Lehigh County Commissioners.

*Suburban Plan Membership:* At January 1, 2019 Plan membership consisted of the following:

|                                                                             |           |
|-----------------------------------------------------------------------------|-----------|
| Inactive plan members or beneficiaries currently receiving benefit payments | 18        |
| Inactive plan members entitled to but not yet receiving benefit payments    | -         |
| Active plan members                                                         | 16        |
| Total                                                                       | <u>34</u> |

The Suburban Plan is closed to new entrants (employees) hired on or after January 1, 2005.

*Benefits Provided:* Any employee hired prior to January 1, 2005 and retiring with at least 10 years of service is eligible to receive medical and prescription drug coverage at age 65 (as a supplement to Medicare). This coverage will include the spouse of the retiree if the retiree is living. The authority to establish and amend the benefit terms of the Suburban Plan resides with the nine-member Board of Directors.

*Contributions:* The authority to establish and amend the contribution requirements of the Authority and plan members also resides with the nine-member Board of Directors. The Board establishes rates based on an actuarially determined rate. Based on the funded status of the Suburban Plan and the latest actuarial valuations neither the plan members or the Authority were required to make contributions for the years ended December 31, 2020, and 2019.

*Investments:* The Suburban Plan's policy in regard to the allocation of invested assets is established and may be amended by the nine member Board of Directors. It is the policy of the Board of Directors to pursue an investment strategy that reduces risk through diversification of the portfolio by investing in a variety of equities and fixed income securities. The following is the Suburban Plan's target asset allocation as of December 31, 2020 and 2019:

| <b>2020</b>        |                          |                      |                          |
|--------------------|--------------------------|----------------------|--------------------------|
| <u>Asset Class</u> | <u>Target Allocation</u> | <u>Asset Class</u>   | <u>Target Allocation</u> |
| Domestic Equity    |                          | International Equity | 10.1%                    |
| Large Cap          | 34.6%                    | Emerging Markets     | 2.7%                     |
| Mid/Small Cap      | 14.8%                    | Non-US Debt          | 1.8%                     |
| Bonds              | 30.4%                    | Blend                | 0.0%                     |
| Cash               | 5.5%                     |                      |                          |

| <b>2019</b>        |                          |
|--------------------|--------------------------|
| <u>Asset Class</u> | <u>Target Allocation</u> |
| Mutual funds       | 100%                     |

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 12 – OTHER POSTEMPLOYMENT BENEFITS (Continued)**

The annual money-weighted rate of return on investments, net of investment expense, was 8.6% and 23.20%, for the years ended December 31, 2020 and 2019, respectively. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

See Note 2 to the financial statements for additional details on the plan's investments.

*Net OPEB Liability of the Suburban Plan:* The components of the net OPEB liability of the Suburban Plan at December 31, 2020, and 2019, were as follows:

|                                                                                    | 2020                  | 2019                  |
|------------------------------------------------------------------------------------|-----------------------|-----------------------|
| Total Plan OPEB Liability                                                          | \$ 2,200,933          | \$ 2,141,848          |
| Plan Fiduciary Net Position                                                        | 3,590,032             | 3,385,901             |
| Plan's Net OPEB Liability/(Asset)                                                  | <u>\$ (1,389,099)</u> | <u>\$ (1,244,053)</u> |
| Plan Fiduciary Net Position as a Percentage of<br>the Total OPEB Liability/(Asset) | 163.1%                | 158.1%                |

*Actuarial Assumptions:* The Suburban Plan's net OPEB liability was measured as of December 31, 2020 and 2019, and the plan's total OPEB liability used to calculate the net OPEB liability was determined by actuarial valuation as of January 1, 2019. The actuary utilized update procedures to roll forward the Suburban Plan's total OPEB liability in the January 1, 2019 actuarial valuation to the December 31, 2020 and 2019 measurement dates.

The Suburban Plan's total OPEB liability in the January 1, 2019 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

|                                         |                                                                                                                                                              |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inflation                               | 2.3 %                                                                                                                                                        |
| Salary Increases                        | 5.0%, average, including inflation.                                                                                                                          |
| Investment Rate of Return               | 8.0%, net of OPEB plan investment expense, including inflation.                                                                                              |
| Healthcare Cost Trend Rates (1/1/2019)  | 20% during 2020 followed by 8.25% during 2021 reduced by .25% per year to an ultimate rate of 5% per year.                                                   |
| Cost Sharing with Inactive Plan Members | Eligible retirees who retired prior to January 1, 2005 contribute 50% of premiums, retirees who retire after January 1, 2005 contribute 21% of the premiums. |

Mortality rates were based on the RP-2014 at 2006 Blue Collar Generational Tables using Scale MP-2017.

**LEHIGH COUNTY AUTHORITY  
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**Notes to Financial Statements**

**NOTE 12 – OTHER POSTEMPLOYMENT BENEFITS (Continued)**

It is assumed that 100% of eligible retirees and spouses will participate in the plan.

The actuarial assumptions used in the January 1, 2019 valuation were based on historical results, as a recent experience study was not completed.

The long-term expected rate of return on the Suburban Plan's OPEB investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the target asset allocation as of December 31, 2020 and 2019 are summarized in the following tables:

| <u>Asset Class</u> | <u>Long-Term Expected<br/>Real Rate of Return</u> | <u>Asset Class</u>   | <u>Long-Term Expected<br/>Real Rate of Return</u> |
|--------------------|---------------------------------------------------|----------------------|---------------------------------------------------|
| Domestic Equity    |                                                   | International Equity | 6.92%                                             |
| Large Cap          | 6.19%                                             | Emerging Markets     | 9.16%                                             |
| Mid Cap            | 7.37%                                             | Non-US Debt          | 0.36%                                             |
| Bonds              | 1.57%                                             | Blend                | 0.00%                                             |
| Cash               | 0.11%                                             |                      |                                                   |

| <u>Asset Class</u> | <u>Long-Term Expected<br/>Real Rate of Return</u> |
|--------------------|---------------------------------------------------|
| Mutual funds       | 6.0%                                              |

*Discount Rate:* The discount rate used to measure the Suburban Plan's total OPEB liability was 8.0% at December 31, 2020 and 2019. The projection of cash flows used to determine the discount rate assumed that the Authority's contributions to the plan will be made at rates equal to the actuarially determined contribution rates. Based on those assumptions, the Suburban Plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on Suburban Plan's investments was applied to all periods of projected benefit payments to determine the Suburban Plan's total OPEB liability.

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**Notes to Financial Statements**

**NOTE 12 – OTHER POSTEMPLOYMENT BENEFITS (Continued)**

Changes in the net OPEB liability for the Suburban plan for the year ended December 31, 2020 were as follows:

|                                                       | Increase (Decrease)            |                                       |                                            |
|-------------------------------------------------------|--------------------------------|---------------------------------------|--------------------------------------------|
|                                                       | Total OPEB<br>Liability<br>(a) | Plan Fiduciary<br>Net Position<br>(b) | Net OPEB<br>Liability/(asset)<br>(a) - (b) |
| Balances as of 12/31/19                               | \$ 2,141,848                   | \$ 3,385,901                          | \$ (1,244,053)                             |
| Service cost                                          | 7,418                          | -                                     | 7,418                                      |
| Interest cost                                         | 167,315                        | -                                     | 167,315                                    |
| Differences between expected<br>and actual experience | -                              | -                                     | -                                          |
| Changes in Assumptions                                | -                              | -                                     | -                                          |
| Contributions - employer                              | -                              | 27,393                                | (27,393)                                   |
| Contributions - members                               | -                              | -                                     | -                                          |
| Net investment income                                 | -                              | 292,386                               | (292,386)                                  |
| Benefit payments                                      | (115,648)                      | (115,648)                             | -                                          |
| Plan administrative expenses                          | -                              | -                                     | -                                          |
| Other changes                                         | -                              | -                                     | -                                          |
| Net Changes                                           | 59,085                         | 204,131                               | (145,046)                                  |
| Balances as of 12/31/20                               | <u>\$ 2,200,933</u>            | <u>\$ 3,590,032</u>                   | <u>\$ (1,389,099)</u>                      |

Changes in the net OPEB liability for the Suburban plan for the year ended December 31, 2019 were as follows:

|                                                       | Increase (Decrease)            |                                       |                                            |
|-------------------------------------------------------|--------------------------------|---------------------------------------|--------------------------------------------|
|                                                       | Total OPEB<br>Liability<br>(a) | Plan Fiduciary<br>Net Position<br>(b) | Net OPEB<br>Liability/(asset)<br>(a) - (b) |
| Balances as of 12/31/18                               | \$ 2,091,480                   | \$ 2,828,188                          | \$ (736,708)                               |
| Service cost                                          | 7,065                          | -                                     | 7,065                                      |
| Interest cost                                         | 162,742                        | -                                     | 162,742                                    |
| Differences between expected<br>and actual experience | 90,059                         | -                                     | 90,059                                     |
| Changes in Assumptions *                              | (99,162)                       | -                                     | (99,162)                                   |
| Contributions - employer                              | -                              | 22,928                                | (22,928)                                   |
| Contributions - members                               | -                              | -                                     | -                                          |
| Net investment income                                 | -                              | 645,121                               | (645,121)                                  |
| Benefit payments                                      | (110,336)                      | (110,336)                             | -                                          |
| Plan administrative expenses                          | -                              | -                                     | -                                          |
| Other changes                                         | -                              | -                                     | -                                          |
| Net Changes                                           | 50,368                         | 557,713                               | (507,345)                                  |
| Balances as of 12/31/19                               | <u>\$ 2,141,848</u>            | <u>\$ 3,385,901</u>                   | <u>\$ (1,244,053)</u>                      |

\*- The December 31, 2019 measurement date reflects a change in assumptions related to the Healthcare Cost Trend Rate.

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**Notes to Financial Statements**

**NOTE 12 – OTHER POSTEMPLOYMENT BENEFITS (Continued)**

*Sensitivity of the Suburban Plan Net OPEB Liability to Changes in the Discount Rate:* The following presents the net OPEB liability of the Suburban Plan, as well as what the Suburban Plan's net OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower (7.0%) or 1-percentage-point higher (9.0%) than the current discount rate:

|                                     | 1 % Decrease<br>(7.0%) | Discount Rate<br>(8.0%) | 1% Increase<br>(9.0%) |
|-------------------------------------|------------------------|-------------------------|-----------------------|
| Net OPEB Liability (Asset) 12/31/20 | \$ (1,162,784)         | \$ (1,389,099)          | \$ (1,583,670)        |
| Net OPEB Liability (Asset) 12/31/19 | \$ (1,015,854)         | \$ (1,244,053)          | \$ (1,439,709)        |

*Sensitivity of the Suburban Plan Net OPEB Liability to Changes in the Healthcare Cost Trend Rates:* The following presents the December 31, 2020 and 2019 net OPEB liability of the Suburban Plan, as well as what the Suburban Plan's net OPEB liability would be if it were calculated using healthcare cost trend rates that are 1-percentage-point lower (19.0% decreasing to 4.0%) or 1-percentage-point higher (21.0% decreasing to 6.0%) than the current healthcare cost trend rates:

|                                     | 1 % Decrease<br>((19%) decreasing<br>to 4%) | Discount Rate<br>((20%) decreasing<br>to 5%) | 1% Increase<br>((21%) decreasing<br>to 6%) |
|-------------------------------------|---------------------------------------------|----------------------------------------------|--------------------------------------------|
| Net OPEB Liability (Asset) 12/31/20 | \$ (1,625,314)                              | \$ (1,389,099)                               | \$ (1,112,694)                             |
| Net OPEB Liability (Asset) 12/31/19 | (1,462,807)                                 | (1,244,053)                                  | (988,313)                                  |

*OPEB Expense and Deferred Outflows and Inflows of Resources:* For the year ended December 31, 2020 and 2019, the Authority recognized OPEB expense of \$94,884, and \$47,394, respectively for the plan. Total OPEB expense recognized by the Authority on both OPEB plans was \$693,119 and \$327,675 for 2020 and 2019, respectively. On December 31, 2020, and 2019, the Authority reported deferred outflows and inflows of resources related to the OPEB plan from the following sources:

|                                                                               | 2020                                 |                                       | 2019                                 |                                       |
|-------------------------------------------------------------------------------|--------------------------------------|---------------------------------------|--------------------------------------|---------------------------------------|
|                                                                               | Deferred<br>Outflows of<br>Resources | Deferred<br>(Inflows) of<br>Resources | Deferred<br>Outflows of<br>Resources | Deferred<br>(Inflows) of<br>Resources |
| Differences between expected and actual experience                            | \$ 22,175                            | \$ -                                  | \$ 56,117                            | \$ -                                  |
| Changes in assumptions                                                        | -                                    | (24,416)                              | -                                    | (61,789)                              |
| Net difference between projected and actual earnings on OPEB plan investments | -                                    | (83,707)                              | -                                    | (57,508)                              |
| Total                                                                         | <u>\$ 22,175</u>                     | <u>\$ (108,123)</u>                   | <u>\$ 56,117</u>                     | <u>\$ (119,297)</u>                   |

Amounts reported as deferred outflows of resources related to OPEB will be recognized in OPEB expense as follows:

| Year Ended December 31: | 12/31/2020         |
|-------------------------|--------------------|
| 2020                    | \$ -               |
| 2021                    | 2,444              |
| 2022                    | 4,686              |
| 2023                    | (88,775)           |
| 2024                    | (4,303)            |
| Total                   | <u>\$ (85,948)</u> |



**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 12 – OTHER POSTEMPLOYMENT BENEFITS (Continued)**

**B. Health & Welfare Plan For City Division Employees (City Plan)**

City Plan

*City Plan Description:* The Authority through a single employer defined benefit plan offers to eligible City Division retirees health insurance and prescription drug benefits in accordance with a memorandum of agreement with the Service Employees International Union Local 32BJ. No assets are accumulated in a trust that meets the criteria in paragraph 4 of GASB Statement 75.

The authority to establish and amend the benefit terms and financing requirements to the Authority resides with the Authority's nine-member Board of Directors, who are appointed by the Lehigh County Executive and approved by the Lehigh County Commissioners.

*City Plan Membership:* At January 1, 2019 Plan membership consisted of the following:

|                                                                             |           |
|-----------------------------------------------------------------------------|-----------|
| Inactive plan members or beneficiaries currently receiving benefit payments | -         |
| Inactive plan members entitled to but not yet receiving benefit payments    | -         |
| Active plan members                                                         | 70        |
| Total                                                                       | <u>70</u> |

*Benefits Provided:* The benefits provided to Other Key Employees hired, were the same as those provided to Union Employees, with the exception that union employees hired after January 1, 2017, receive coverage for three years or until Medicare eligible, whichever occurs first. Any employee retiring with a minimum age of 55 and 20 years of service or retiring at the age of 60 with 15 years is eligible to receive medical and prescription drug coverage until they reach the age of 65, with the exception previously noted for union employees hired after January 1, 2017. This coverage will include the spouse of the retiree until the retiree or spouse attains the age of 65 and dependent child coverage that ends when the dependent child reaches the age of 26 or the retiree reaches the age of 65. The authority to establish and amend the benefit terms of the City Plan resides with the nine-member Board of Directors.

*Actuarial Assumptions & Total OPEB Liability:* The City Plan's total OPEB liability was measured as of December 31, 2020 and 2019, and was determined by an actuarial valuation as of January 1, 2019. The actuary utilized update procedures to roll forward the total OPEB liability for the City Plan in the January 1, 2019 actuarial valuation to the December 31, 2020, and 2019 measurement dates.

The City Plan's total OPEB liability in the January 1, 2019 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

|                                         |                                                                                                                                          |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Inflation                               | 2.3 %                                                                                                                                    |
| Salary Increases                        | 5.0%, average, including inflation.                                                                                                      |
| Discount Rate                           | 1.93%                                                                                                                                    |
| Healthcare Cost Trend Rates (1/1/2019)  | 20% during 2020 followed by 8.25% during 2021 reduced by .25% per year to an ultimate rate of 5.0% per year.                             |
| Cost Sharing with Inactive Plan Members | Eligible retirees with a minimum of 15 years pay 25% of premiums, retirees with more than 10 years but less than 15 pay 50% of premiums. |

The discount rate was based on the S&P 20 year AA municipal bond rate.

Mortality rates were based on the RP-2014 at 2006 Blue Collar Generational Tables using Scale MP-2017.

It is assumed that 100% of eligible retirees and spouses will participate in the plan.

The actuarial assumptions used in the January 1, 2019 valuation were based on historical results as a recent experience study was not completed.

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**Notes to Financial Statements**

**NOTE 12 – OTHER POSTEMPLOYMENT BENEFITS (Continued)**

Changes in the total OPEB liability for the City Plan for the year ended December 31, 2020 were as follows:

|                                                       | <u>Increase (Decrease)</u><br>Total OPEB<br>Liability<br>(a) |
|-------------------------------------------------------|--------------------------------------------------------------|
| Balances as of 12/31/19                               | \$ 2,944,923                                                 |
| Service cost                                          | 269,018                                                      |
| Interest cost                                         | 72,855                                                       |
| Change in Benefit Terms                               | -                                                            |
| Differences between expected<br>and actual experience | -                                                            |
| Change in Assumptions *                               | 583,524                                                      |
| Benefit payments                                      | (45,177)                                                     |
| Other changes                                         | -                                                            |
| Net Changes                                           | 880,220                                                      |
| Balances as of 12/31/20                               | <u>\$ 3,825,143</u>                                          |

\*- The December 31, 2020 measurement date reflects a change in assumptions related to the Healthcare Cost Trend Rate, and a change in the discount rate.

Changes in the total OPEB liability for the City Plan for the year ended December 31, 2019 were as follows:

|                                                       | <u>Increase (Decrease)</u><br>Total OPEB<br>Liability<br>(a) |
|-------------------------------------------------------|--------------------------------------------------------------|
| Balances as of 12/31/18                               | \$ 2,020,079                                                 |
| Service cost                                          | 184,957                                                      |
| Interest cost                                         | 106,760                                                      |
| Change in Benefit Terms*                              | (55,110)                                                     |
| Differences between expected<br>and actual experience | 383,657                                                      |
| Change in Assumptions*                                | 322,110                                                      |
| Benefit payments                                      | (17,530)                                                     |
| Other changes                                         | -                                                            |
| Net Changes                                           | 924,844                                                      |
| Balances as of 12/31/19                               | <u>\$ 2,944,923</u>                                          |

\*- The December 31, 2019 measurement date reflects a change in assumptions related to the Healthcare Cost Trend Rate, and a change in benefit coverage length for union employees hired after January 1, 2017.

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**Notes to Financial Statements**

**NOTE 12 – OTHER POSTEMPLOYMENT BENEFITS (Continued)**

*Sensitivity of the City Plan Total OPEB Liability to Changes in the Discount Rate:* The following presents the December 31, 2020 total OPEB liability of the City Plan, as well as what the City Plan's total OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower (0.93%) or 1-percentage-point higher (2.93%) than the current discount rate:

|                               | 1 % Decrease<br>(0.93%) | Discount Rate<br>(1.93%) | 1% Increase<br>(2.93%) |
|-------------------------------|-------------------------|--------------------------|------------------------|
| Total OPEB Liability 12/31/20 | \$ 4,192,791            | \$ 3,825,143             | \$ 3,477,837           |

The following presents the December 31, 2019 total OPEB liability of the City Plan, as well as what the City Plan's total OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower (2.75%) or 1-percentage-point higher (4.75%) than the current discount rate:

|                               | 1 % Decrease<br>(2.75%) | Discount Rate<br>(3.75%) | 1% Increase<br>(4.75%) |
|-------------------------------|-------------------------|--------------------------|------------------------|
| Total OPEB Liability 12/31/19 | \$ 3,255,902            | \$ 2,944,923             | \$ 2,659,345           |

*Sensitivity of the City Plan Total OPEB Liability to Changes in the Healthcare Cost Trend Rates:* The following presents the total OPEB liability of the City Plan, as well as what the City Plan's total OPEB liability would be if it were calculated using healthcare cost trend rates that are 1-percentage-point lower ((19%) decreasing to 4%) or 1-percentage-point higher ((21%) decreasing to 6%) than the current healthcare cost trend rates:

|                                       | 1 % Decrease<br>((19%) decreasing<br>to 4%) | Discount Rate<br>((20%) decreasing<br>to 5%) | 1% Increase<br>((21%) decreasing<br>to 6%) |
|---------------------------------------|---------------------------------------------|----------------------------------------------|--------------------------------------------|
| Total OPEB Liability (Asset) 12/31/20 | \$ 3,234,823                                | \$ 3,825,143                                 | \$ 4,549,607                               |
| Total OPEB Liability (Asset) 12/31/19 | 2,523,839                                   | 2,944,923                                    | 3,457,031                                  |

*OPEB Expense and Deferred Outflows of Resources:* For the year ended December 31, 2020 and 2019, the Authority recognized OPEB expense of \$598,235 and \$280,281, respectively for the plan. The plan is funded on a "pay as you go" basis. At December 31, 2020 the Authority reported deferred outflows of resources related to the OPEB plan from the following sources:

|                                                    | 2020                                 |                                       | 2019                                 |                                       |
|----------------------------------------------------|--------------------------------------|---------------------------------------|--------------------------------------|---------------------------------------|
|                                                    | Deferred<br>Outflows of<br>Resources | Deferred<br>(Inflows) of<br>Resources | Deferred<br>Outflows of<br>Resources | Deferred<br>(Inflows) of<br>Resources |
| Differences between expected and actual experience | \$ 268,261                           | \$ -                                  | \$ 359,916                           | \$ -                                  |
| Changes in assumptions                             | 720,994                              | -                                     | 302,177                              | -                                     |
| Total                                              | <u>\$ 989,255</u>                    | <u>\$ -</u>                           | <u>\$ 662,093</u>                    | <u>\$ -</u>                           |

**LEHIGH COUNTY AUTHORITY  
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**Notes to Financial Statements**

**NOTE 12 – OTHER POSTEMPLOYMENT BENEFITS (Continued)**

Amounts reported as deferred outflows of resources related to OPEB will be recognized in OPEB expense as follows:

| <u>Year Ended December 31:</u> |                   |
|--------------------------------|-------------------|
| 2021                           | \$ 193,896        |
| 2022                           | 193,896           |
| 2023                           | 193,896           |
| 2024                           | 193,896           |
| 2025                           | 156,683           |
| Thereafter                     | <u>56,988</u>     |
| Total                          | <u>\$ 989,255</u> |

**NOTE 13 – NET POSITION**

The basic financial statements utilize a net position presentation. Net position is categorized as net investment in capital assets, restricted and unrestricted.

Net investment in capital assets is intended to reflect the portion of net position that are associated with non-liquid, capital assets, less outstanding capital asset related debt. Restricted assets are liquid assets generated from revenues that have third-party (statutory, bond covenant or water user) limitation on their use. Unrestricted net position are amounts that do not meet the definitions of “net investment in capital assets” or “restricted assets” and are available for Authority operations.

It is the Authority’s policy to first use restricted assets prior to the use of unrestricted net position when an expenditure is incurred for purposes for which both restricted and unrestricted assets are available.

**NOTE 14 – DEFINED BENEFIT PENSION PLAN**

**A. General Information about the Pension Plan**

*Plan Description.* The Authority, through a January 2014 agreement, provides employee pension benefits through participation in the Pennsylvania Municipal Retirement System (PMRS). The PMRS was created by the Pennsylvania General Assembly in 1974 with the passage of the Pennsylvania Municipal Retirement Law 1974, P.L. 34, No. 15. PMRS administers pension plans on a contracted basis for any municipality or institution supported and maintained by a Pennsylvania municipality. This agent multiple-employer public employee retirement system maintains each municipality's account separately with that municipality's contributions and related employee contributions, and earnings segregated into separate accounts. PMRS issues a separate Comprehensive Annual Financial Report, which can be obtained by contacting the PMRS accounting office at P.O. Box 1165, Harrisburg, PA 17108-1165.

*Benefits Provided.* Benefit terms were established under the 2014 agreement between PMRS and the Authority, changes to benefit terms can only occur by modification of this agreement. Major provisions of the 2014 agreement include the following:

All full-time and permanent part-time Authority employees are required to participate in the System. Benefits vest after eight years of service. Employees can retire with an annual retirement benefit after 20 years of service provided age 55 has been attained, or at age 60.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 14 – DEFINED BENEFIT PENSION PLAN (Continued)**

**A. General Information about the Pension Plan (Continued)**

The normal form of payment of retirement benefits is a monthly annuity available for the life of the retired employee. One and two-thirds percent of the employee's average salary for the three consecutive years of greatest compensation multiplied by the number of years of service, and any fraction thereof, is used to calculate the normal retirement benefit funded solely by the Authority's contributions. Supplemental benefits are derived from employee contributions and interest earnings of the fund. A retiree may elect to receive a reduced amount of benefit and provide a death benefit in the form of annuity or lump sum to the designated beneficiary. The plan also provides death and disability benefits for an active employee.

Depending upon the annual investment return, the plan may award excess interest earnings to participating municipalities. The municipalities have the option of either retaining such excess earnings or sharing the additional earnings with active employees and retirees. In all years when excess interest earnings have been awarded, the Authority has elected to pro-ratably share excess earnings resulting in a postretirement increase to retirees. Sharing of excess earnings is the only method available for increasing postretirement benefits.

The plan does not allow for any cost-of-living adjustments to an employee's retirement allowance subsequent to the employee's retirement date.

*Employees Covered by Benefit Terms.* At December 31, 2018, the following employees were covered by the benefit terms:

|                                                                     | <u>12/31/2018</u> |
|---------------------------------------------------------------------|-------------------|
| Inactive plan members or beneficiaries currently receiving benefits | 38                |
| Inactive plan members entitled to but not yet receiving benefits    | 4                 |
| Active plan members                                                 | <u>159</u>        |
| Total                                                               | 201               |

*Contributions.* Required contributions to the plan are governed by the 2014 agreement. The PMRS Board will actuarially determine the normal cost of the benefits provided under the contract (2014 agreement) and any liability associated with the actuarial experience of such benefits which shall be contributed annually by the Authority. The PMRS Board shall determine and the Authority shall be charged an additional amount to be contributed annually toward a reserve account for any disability benefit which may be payable under the contract (2014 agreement). The amounts so determined shall be computed in accordance with the Municipal Pension Plan Funding Standard and Recovery Act, 53 P.S. §895.101 et seq., and the PMRL. Members shall contribute one percent of their compensation to fund the annuity. Members may optionally contribute up to, but no more than an additional ten percent of their compensation. For the years ended December 31, 2020 and 2019, the average active employee contribution rate was 1.0% of annual pay, and the Authority's average contribution rate was 13.13% and 13.63%, respectively, of covered annual payroll.

**B. Net Pension Liability**

The Authority's net pension liability was measured as of December 31, 2019 and 2018, and the total pension liability used to calculate the net pension liabilities were determined by actuarial valuations as of December 31, 2018. The actuary utilized update procedures to roll forward the total pension liability in the December 31, 2018 actuarial valuation to the respective measurement dates.

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**Notes to Financial Statements**

**NOTE 14 – DEFINED BENEFIT PENSION PLAN (Continued)**

**B. Net Pension Liability (Continued)**

*Actuarial assumptions.* The total pension liability in the December 31, 2018 actuarial valuation was determined using the following actuarial assumptions:

|                            | December 31, 2018<br>Valuation                                     |
|----------------------------|--------------------------------------------------------------------|
| Investment rate of return  | 5.25%, net of pension plan investment expense, including inflation |
| Projected salary increases | Age/Merit Scale including inflation ranging from 2.80% to 7.05%    |
| Inflation                  | 2.2%                                                               |

Mortality rates Pre-Retirement for the December 31, 2018 valuation was based on the RP-2000 Scale with 1 year setback for males and 5 year setback for females. Mortality rates Post-Retirement for the December 31, 2018 valuation was based on the RP-2000 Sex-Distinct Mortality Table. The current mortality assumptions, while not reflecting projections for improvements are subject to experience review every four years at which time recommendations of changes to reflect changes in experience over those expected from the tables applied over the five year period preceding the experience analysis are received and reviewed by the Board. Such experience is required by State statute.

The actuarial assumptions used in the December 31, 2018 valuation were based on the PMRS Experience Study for the period covering January 1, 2009 through December 31, 2013 issued by the actuary in July 2015 as well as subsequent Board approved assumption changes.

The PMRS system's long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimates of expected future real rates of return (expected returns, net of pension plan investment expenses and inflation) are developed for each major asset class. These ranges are combined to produce the Long-Term Expected Rate of Return, by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation of December 31, 2019 are summarized in the tables below labeled "System Nominal and Real Rates of Return by Asset Class." There are three steps to the method:

- 1.) Expected future real rates of return are based primarily on the 20 year nominal rates of return as reflected by applicable return indexes and may be adjusted for specific asset classes if, in the Board's opinion, any such asset classes are expected in the future to significantly vary from its 20 year historical returns.
- 2.) The nominal rates of return by asset class are adjusted by the System's investment expenses and an expected future annual inflation rate of 2.2% to produce the long-term expected real rates of return.
- 3.) The long-term expected real rates of return are further adjusted by weighting each asset class using the PMRS portfolio target asset allocations.

**LEHIGH COUNTY AUTHORITY  
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**Notes to Financial Statements**

**NOTE 14 – DEFINED BENEFIT PENSION PLAN (Continued)**

**B. Net Pension Liability (Continued)**

System Nominal and Real Rates of Return by Asset Class  
12/31/2018 Valuation

| Asset Class                                              | Target<br>Allocation | Nominal Rate of<br>Return | Long-Term<br>Expected Real<br>Rate of Return |
|----------------------------------------------------------|----------------------|---------------------------|----------------------------------------------|
| Domestic Equities (large capitalized firms)              | 25.0%                | 7.3%                      | 4.6%                                         |
| Domestic Equities (small capitalized firms)              | 15.0%                | 10.0%                     | 7.3%                                         |
| International Equities (international developed markets) | 15.0%                | 6.2%                      | 3.5%                                         |
| International Equities (emerging markets)                | 10.0%                | 10.6%                     | 8.3%                                         |
| Real Estate                                              | 20.0%                | 8.5%                      | 5.4%                                         |
| Fixed income                                             | 15.0%                | 3.3%                      | 1.1%                                         |

Based on the three part analysis, the PMRS Board established the System's Long-Term Expected Rate of Return at 7.0% for the December 31, 2018, respectively.

In addition to determining the System's Long-Term Expected Rate of Return, the PMRS Board, under the laws of the Commonwealth of Pennsylvania (Act 15 of 1974), is obligated to develop and apply the Regular Interest Rate to each of the individual participating municipalities' actuarial asset accounts held by PMRS. The rationale for the difference between the System's Long-Term Expected Rate of Return and the individual participating municipalities' Regular Interest Rate is described in the following section "Discount Rate." This rate was 5.25% for the December 31, 2018 valuation.

The System's policy in regard to the investment income allocation on invested assets is established and may be amended by the PMRS Board. Plan assets are managed on a total return basis with an emphasis on both capital appreciation as well as the production of income, in order to satisfy the short-term and long-term funding needs of PMRS.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 14 – DEFINED BENEFIT PENSION PLAN (Continued)**

**B. Net Pension Liability (Continued)**

*Discount rate.* While it is often common practice to establish an actuarial Discount Rate that is equal to the Long-Term Expected Rate of Return, PMRS is required by law (Act 15 of 1974) to establish a Discount Rate equal to the Regular Interest Rate (Regular Interest Rate / Discount Rate). The PMRS Board establishes the Regular Interest Rate / Discount Rate based on expected stable and consistent earnings on investments to be applied to the accounts of the individual participating municipalities and includes the accounts of plan participants, municipalities, and plan retirees each year. As a starting point, the Board considers the following five quantitative factors in reviewing the Regular Interest Rate / Discount Rate:

- 1.) Retiree Plan liability as a percentage of total Plan liability,
- 2.) Active Plan participant liability as a percentage of total Plan liability,
- 3.) Smoothed Pension Benefit Guarantee Corporation (PBGC) annuity rates as a proxy for annuity purchase rates,
- 4.) PMRS System Long-Term Expected Rate of Return and,
- 5.) PMRS administrative expenses.

The PMRS Board then adjust the Regular Interest Rate / Discount Rate by a variety of qualitative factors such as the desire to minimize Regular Interest Rate / Discount Rate volatility, varying levels of asset allocation and liquidity, trending of PBGC annuity rates, total PMRS actuarial and fair value funding ratios, feedback from existing PMRS municipalities, and recommendations from the System's investment and actuarial consultants. The Regular Interest Rate / Discount Rates adopted by the Board and used to measure the individual participating municipalities' total pension liability was 5.25% for the December 31, 2018 actuarial valuation.

The Regular Interest Rate / Discount Rate will likely be less than the System Long-Term Expected Rate of Return. Should the System experience a prolonged period of investment returns in excess of the Regular Interest Rate, the PMRS Board is authorized to allocate any applicable portion of such excess in accordance with PMRS Board policies in the form of Excess Interest as provided for in the law.

The projection of cash flows for each underlying municipal plan, used to determine if any adjustment to the Discount Rate was required (depletion testing"), used the following assumptions: 1.) member contributions will be made at the current contribution rate 2.) participating plan sponsor contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate, and 3.) the System's Long-Term Expected Rate of Return will be used in the depletion testing of projected cash flows. Based on those assumptions, the PMRS pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members.



**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 14 – DEFINED BENEFIT PENSION PLAN (Continued)**

**C. Changes in the Net Pension Liability**

|                                                                  | Increase (Decrease)               |                                       |                                       |
|------------------------------------------------------------------|-----------------------------------|---------------------------------------|---------------------------------------|
|                                                                  | Total Pension<br>Liability<br>(a) | Plan Fiduciary Net<br>Position<br>(b) | Net Pension<br>Liability<br>(a) - (b) |
| Balances at 12/31/2019 (based on<br>12/31/2018 measurement date) | \$ 30,412,440                     | \$ 25,424,328                         | \$ 4,988,112                          |
| Changes for the year:                                            |                                   |                                       |                                       |
| Service cost                                                     | 1,779,213                         | -                                     | 1,779,213                             |
| Interest                                                         | 1,649,798                         | -                                     | 1,649,798                             |
| Changes of benefits                                              | -                                 | -                                     | -                                     |
| Changes of assumptions                                           | -                                 | -                                     | -                                     |
| Differences between expected<br>and actual experience            | -                                 | -                                     | -                                     |
| Contributions - employer                                         | -                                 | 1,410,695                             | (1,410,695)                           |
| Contributions - member                                           | -                                 | 648,390                               | (648,390)                             |
| Net investment income/(loss)                                     | -                                 | 5,436,112                             | (5,436,112)                           |
| Benefit payments, including refunds<br>of employee contributions | (999,402)                         | (999,402)                             | -                                     |
| Administrative expense                                           | -                                 | (55,136)                              | 55,136                                |
| Net changes                                                      | 2,429,609                         | 6,440,659                             | (4,011,050)                           |
| Balances at 12/31/20 (based on a 12/31/19<br>measurement date)   | <u>\$ 32,842,049</u>              | <u>\$ 31,864,987</u>                  | <u>\$ 977,062</u>                     |

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 14 – DEFINED BENEFIT PENSION PLAN (Continued)**

**C. Changes in the Net Pension Liability (Continued)**

|                                                                  | Total Pension<br>Liability<br>(a) | Plan Fiduciary Net<br>Position<br>(b) | Net Pension<br>Liability<br>(a) - (b) |
|------------------------------------------------------------------|-----------------------------------|---------------------------------------|---------------------------------------|
| Balances at 12/31/2018 (based on<br>12/31/2017 measurement date) | \$ 27,730,765                     | \$ 25,973,510                         | \$ 1,757,255                          |
| Changes for the year:                                            |                                   |                                       |                                       |
| Service cost                                                     | 1,688,127                         | -                                     | 1,688,127                             |
| Interest                                                         | 1,503,378                         | -                                     | 1,503,378                             |
| Changes of benefits                                              | -                                 | -                                     | -                                     |
| Changes of assumptions                                           | -                                 | -                                     | -                                     |
| Differences between expected<br>and actual experience            | 563,913                           | -                                     | 563,913                               |
| Contributions - employer                                         | -                                 | 1,141,302                             | (1,141,302)                           |
| Contributions - member                                           | -                                 | 602,779                               | (602,779)                             |
| Net investment income/(loss)                                     | -                                 | (1,157,514)                           | 1,157,514                             |
| Benefit payments, including refunds<br>of employee contributions | (1,073,743)                       | (1,073,743)                           | -                                     |
| Administrative expense                                           | -                                 | (62,006)                              | 62,006                                |
| Net changes                                                      | <u>2,681,675</u>                  | <u>(549,182)</u>                      | <u>3,230,857</u>                      |
| Balances at 12/31/19 (based on a 12/31/18<br>measurement date)   | <u>\$ 30,412,440</u>              | <u>\$ 25,424,328</u>                  | <u>\$ 4,988,112</u>                   |

*Sensitivity of the pension liability to changes in the discount rate.* The following tables present the net pension liability of the Authority, calculated using the discount rates of 5.25%, as well as what the Authority's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (4.25%) or 1-percentage-point higher (6.25%) than the discount rate utilized for the December 31, 2018 actuarial valuation:

|                                            | 1%<br>Decrease<br>(4.25%) | Discount Rate<br>12/31/18<br>Valuation<br>(5.25%) | 1% Increase<br>(6.25%) |
|--------------------------------------------|---------------------------|---------------------------------------------------|------------------------|
| Authority's net pension liability 12/31/19 | \$4,545,713               | \$977,062                                         | \$(2,021,087)          |
| Authority's net pension liability 12/31/18 | \$8,292,759               | \$4,988,112                                       | \$2,211,762            |

*Pension plan fiduciary net position.* Detailed information about the pension plan's fiduciary net position is available in the separately issues PMRS financial report.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 14 – DEFINED BENEFIT PENSION PLAN (Continued)**

**D. Pension Expense, Deferred Outflows, and Deferred Inflows of Resources Related to Pensions**

For the year ended December 31, 2020, the Authority recognized pension expense of \$208,525, \$104,970, and \$774,272 in the Suburban Water Fund, Suburban Wastewater Fund, and City Fund, respectively.

For the year ended December 31, 2019, the Authority recognized pension expense of \$358,953, \$180,694, and \$1,332,826 in the Suburban Water Fund, Suburban Wastewater Fund, and City Fund, respectively.

At December 31, 2020 and 2019 the Authority reported deferred outflows and deferred inflows of resources related to pensions from the following sources:

|                                                                                  | 2020                                 |                                       | 2019                                 |                                       |
|----------------------------------------------------------------------------------|--------------------------------------|---------------------------------------|--------------------------------------|---------------------------------------|
|                                                                                  | Deferred<br>Outflows of<br>Resources | Deferred<br>(Inflows) of<br>Resources | Deferred<br>Outflows of<br>Resources | Deferred<br>(Inflows) of<br>Resources |
| Differences between expected and actual experience                               | \$ 940,213                           | \$ -                                  | \$ 1,213,661                         | \$ -                                  |
| Changes in assumptions                                                           | 353,382                              | -                                     | 471,179                              | -                                     |
| Net difference between projected and actual earnings on pension plan investments | -                                    | (2,846,941)                           | 445,758                              | -                                     |
| Contributions subsequent to the measurement date                                 | 1,488,850                            | -                                     | 1,414,635                            | -                                     |
| Total                                                                            | <u>\$ 2,782,445</u>                  | <u>\$(2,846,941)</u>                  | <u>\$ 3,545,233</u>                  | <u>\$ -</u>                           |

The \$1,488,350 reported as deferred outflows of resources related to pensions resulting from the Authority contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended December 31, 2020 financial statements. Other amounts reported as deferred outflows of resources related to pensions will be recognized in pension expense as follows:

|                         |              |
|-------------------------|--------------|
| Year ended December 31: |              |
| 2021                    | \$ (531,620) |
| 2022                    | (440,515)    |
| 2023                    | 50,058       |
| 2024                    | (711,828)    |
| 2025                    | 80,559       |
| Thereafter              | 0            |

**NOTE 15 – DEFERRED COMPENSATION PLAN**

In 1990, the Authority entered into an agreement with the International City Management Association (ICMA) to provide a Deferred Compensation Plan in accordance with the Internal Revenue Code, Section 457, on a voluntary basis to full-time employees. In 2020, the Authority changed record-keepers to Empower Retirement. The plan permits employees to defer a portion of their salary until future years. The deferred compensation is only available to participants at employment termination, retirement or for an unforeseeable emergency. The Authority makes no contributions to the plan. In accordance with federal law, a trust fund was established for the deposit of Section 457 assets. The trust fund is for the exclusive benefit of plan participants and beneficiaries. Because the assets are not owned by the Authority but are held in a trust, the deferred compensation assets and related liabilities are not recorded in the Authority's financial statements. The Authority's fiduciary responsibilities are to submit participant payroll deductions and enrollment change forms to the plan administrator (Retirement Corporation). Other than reviewing quarterly statements for accuracy, the Authority has no other fiduciary responsibility. Investments are managed by the plan's trustee with various investment options available. The choice of the investment option(s) is made by the employee. Forty-five employees contributed into the Empower Retirement plan in 2020 and fifty-six employees contributed into ICMA plan in 2019, respectively.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 16 – RISK MANAGEMENT**

The Authority joined the Pennsylvania Intergovernmental Risk Management Association (PIRMA) in August 1991, to obtain General, Public Officials' and Automobile Liability Coverage. PIRMA, which has operated since 1987, is a public entity risk pool providing liability insurance coverage to 620 Pennsylvania municipal entities as of December 31, 2020. In paying claims, the pool covers the first \$350,000 per claim. Thereafter, American Public Entity Excess Pool (APEEP) provides coverage of \$4,650,000 per claim and General Reinsurance Company and Market Reinsurance Company provide quota share coverage at \$5,000,000 per claim of excess coverage over APEEP for a total coverage of \$10,000,000 per claim. The intergovernmental agreement specifies that in the event a claim or claims exhausts total members' equity, plus excess insurance coverage, then payment for such claim shall be the obligation of the respective individual member. In 2020 and 2019 the Authority paid \$291,204 and \$290,809 to PIRMA as its share of liability insurance premiums, respectively.

The Authority has been a member of the Delaware Valley Workers' Compensation Trust (DVWCT) since 1993. The Trust, a risk sharing pool formed in 1992, is comprised of 97 municipal entities located primarily in Southeastern Pennsylvania. The DVWCT assumes the first \$750,000 of each occurrence with excess insurance providing coverage up to the PA Statutory limit. If reserve funds and surplus are exhausted by claims, the Trust Agreement allows the governing board to levy additional assessments against pool members. Any additional assessments would be equal to the ratio of the participant's annual contribution to the total annual contribution paid by all participants in the trust year in which a deficit occurred. The Trust's surplus position makes an assessment unlikely.

The Authority paid a final audited premium of \$219,322 for 2019 and a deposit premium \$236,481 in 2020 before payroll audit. As of January 1, 2020, the Authority had accrued \$58,064 in Rate Stabilization Fund (RSF) credits which were available to reduce the Authority's 2020 premium. Any unused RSF credits will be rolled over to 2021, and the Trust will add investment income to the unused balance. The Authority also received dividends from the Trust of \$9,540 in 2019 and \$6,952 in 2020.

The Authority offers employees health care coverage through a PPO (Preferred Provider Organization) Plan using the Pennsylvania Municipal Insurance Cooperative (PMHIC) to purchase such insurance. The purpose of the cooperative, which consists of 277 municipal entities as of September 23, 2020, is to control escalating health care premiums by allowing municipalities the potential for volume discounts. The pool utilizes an Administrative Services arrangement, which uses the insurer (Capital Blue Cross) only for network access and claims management. The pool is self-funding up to the first \$50,000 per claim with reinsurance available to cover costs in excess of the self-funded limit. Annually a reconciliation of premiums paid to claims incurred is developed and if the cooperative has favorable experience, a dividend is returned to those participants who paid more premium than claims incurred. The cooperative uses a third-party administrator to issue bills and act as the liaison and rate negotiator with the insurers. Authority health benefits payments for retirees and active employees, net of reimbursements and dividend returns, for the years ended December 31, 2020 and December 31, 2019 totaled \$1,006,526 and \$1,684,981, respectively.

The Authority also purchases property coverage through CNA, brokered through Murray Securus. For 2020 and 2019, insurance costs amounted to \$247,000 and \$204,000, respectively. All other risks of loss including employee bonding, group disability and life insurance are insured through commercial insurance. Settled claims resulting from these risks have not exceeded insurance coverage in any of the past four years.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**Notes to Financial Statements**

**NOTE 17 – MAJOR CUSTOMER AND ECONOMIC DEPENDENCY**

Several service agreements specify that the Authority will provide wastewater service through use of the Western Lehigh and Little Lehigh Relief Interceptor Systems to ten municipalities. As part of this service, the Authority bills certain municipalities for their share of the City of Allentown's treatment and transportation costs and the operating costs of the Western Lehigh and Little Lehigh Relief Interceptor Systems. During 2020 and 2019, two of the municipal customers each provided in excess of 10% of the total operating revenues. Since any reduction in user discharges is offset by lower treatment and transportation costs, and all municipalities share in paying system costs, economic dependency of any one of the customers is absent.

**NOTE 18 – SUBSEQUENT EVENTS**

In June 2021, the Authority issued Water Revenue Bonds, Series of 2021 in the amount of \$17,740,000. Proceeds of the bonds were used to refund Water Revenue Bonds, 2010A Series, Water Revenue Bonds, 2015A Series, and the outstanding PennWorks Loan.

**REQUIRED  
SUPPLEMENTARY  
INFORMATION**

LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA

REQUIRED SUPPLEMENTARY INFORMATION  
SCHEDULE OF CHANGES IN THE AUTHORITY'S NET PENSION LIABILITY  
AND RELATED RATIOS  
LAST 10 FISCAL YEARS

|                                                                            | 2020                 | 2019                 | 2018                 | 2017                 | 2016                 | 2015                 |
|----------------------------------------------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Total Pension Liability                                                    |                      |                      |                      |                      |                      |                      |
| Service Costs                                                              | \$ 1,779,213         | \$ 1,688,127         | \$ 1,543,865         | \$ 1,452,861         | \$ 1,488,350         | \$ 677,165           |
| Interest                                                                   | 1,649,798            | 1,503,378            | 1,401,384            | 1,276,753            | 1,163,405            | 1,038,585            |
| Changes of Benefit Terms                                                   | -                    | -                    | -                    | -                    | -                    | -                    |
| Differences Between Expected and Actual Experience                         | -                    | 563,913              | -                    | 1,061,505            | -                    | 329,959              |
| Changes of Assumptions                                                     | -                    | -                    | -                    | 641,095              | 209,677              | -                    |
| Benefit Payments, Including Refunds of Member Contributions                | (999,402)            | (1,073,743)          | (1,166,011)          | (915,177)            | (600,285)            | (544,982)            |
| Net Change in Total Pension Liability                                      | 2,429,609            | 2,681,675            | 1,779,238            | 3,517,037            | 2,261,147            | 1,500,727            |
| Total Pension Liability - beginning                                        | 30,412,440           | 27,730,765           | 25,951,527           | 22,434,490           | 20,173,343           | 18,672,616           |
| Total Pension Liability - ending (a)                                       | <u>\$ 32,842,049</u> | <u>\$ 30,412,440</u> | <u>\$ 27,730,765</u> | <u>\$ 25,951,527</u> | <u>\$ 22,434,490</u> | <u>\$ 20,173,343</u> |
| Plan Fiduciary Net Position                                                |                      |                      |                      |                      |                      |                      |
| Contributions - Employer                                                   | \$ 1,410,695         | \$ 1,141,302         | \$ 1,106,875         | \$ 972,122           | \$ 978,336           | \$ 365,907           |
| Contributions - Member                                                     | 648,390              | 602,779              | 543,474              | 526,823              | 507,893              | 473,935              |
| Net Investment Income                                                      | 5,436,112            | (1,157,514)          | 3,886,626            | 1,670,359            | (99,517)             | 947,378              |
| Benefit Payments, Including Refunds of Member Contributions                | (999,402)            | (1,073,743)          | (1,166,011)          | (915,177)            | (600,285)            | (544,982)            |
| Administrative Expense                                                     | (55,136)             | (62,006)             | (60,172)             | (63,095)             | (52,516)             | (41,411)             |
| Net Change in Plan Fiduciary Net Position                                  | 6,440,659            | (549,182)            | 4,310,792            | 2,191,032            | 733,911              | 1,200,827            |
| Plan Fiduciary Net Position - beginning                                    | 25,424,328           | 25,973,510           | 21,662,718           | 19,471,686           | 18,737,775           | 17,536,948           |
| Plan Fiduciary Net Position - ending (b)                                   | <u>\$ 31,864,987</u> | <u>\$ 25,424,328</u> | <u>\$ 25,973,510</u> | <u>\$ 21,662,718</u> | <u>\$ 19,471,686</u> | <u>\$ 18,737,775</u> |
| Authority's Net Pension Liability - ending (a) - (b)                       | <u>\$ 977,062</u>    | <u>\$ 4,988,112</u>  | <u>\$ 1,757,255</u>  | <u>\$ 4,288,809</u>  | <u>\$ 2,962,804</u>  | <u>\$ 1,435,568</u>  |
| Plan Fiduciary Net Position as a Percentage of the Total Pension Liability | 97.02%               | 83.60%               | 93.66%               | 83.47%               | 86.79%               | 92.88%               |
| Covered Payroll                                                            | \$ 10,378,157        | \$ 9,905,129         | \$ 9,135,580         | \$ 8,807,193         | \$ 8,763,140         | \$ 2,314,192         |
| Authority's Net Pension Liability as a Percentage of Covered Payroll       | 9.41%                | 50.36%               | 19.24%               | 48.70%               | 33.81%               | 62.03%               |

\* - Information only available for six years. Future years will be added as information becomes available.

\*\* - The Authority had changes in assumptions related to mortality rates, retirement rates, and wage scales in the December 31, 2015 measurement date compared to previous measurement dates.

\*\*\* - The Authority had changes in assumptions related to the discount rate in the December 31, 2017 measurement date compared to previous measurement dates.

LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA

REQUIRED SUPPLEMENTARY INFORMATION  
SCHEDULE OF AUTHORITY CONTRIBUTIONS PENSION PLAN  
LAST 10 FISCAL YEARS

|                                                                     | 2020          | 2019          | 2018         | 2017         | 2016         | 2015         | 2014         | 2013         | 2012       | 2011         | 2010      |
|---------------------------------------------------------------------|---------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|------------|--------------|-----------|
| Actuarially Determined Contribution                                 | \$ 1,488,850  | \$ 1,414,635  | \$ 1,145,082 | \$ 1,110,595 | \$ 972,122   | \$ 978,336   | \$ 361,607   | \$ 190,996   | \$ 136,779 | \$ 134,456   | \$ 99,891 |
| Contribution in Relation to the Actuarially Determined Contribution | 1,488,850     | 1,414,635     | 1,145,082    | 1,110,595    | 972,122      | 978,736      | 365,907      | 190,996      | 136,779    | 134,456      | 99,891    |
| Contribution Deficiency/(Excess)                                    | \$ -          | \$ -          | \$ -         | \$ -         | \$ -         | (400)        | (4,300)      | \$ -         | \$ -       | \$ -         | \$ -      |
| Covered Payroll                                                     | \$ 11,336,308 | \$ 10,378,157 | \$ 9,905,129 | \$ 9,135,580 | \$ 8,807,193 | \$ 8,763,140 | \$ 2,314,192 | \$ 2,220,914 | *          | \$ 2,563,288 | *         |
| Contribution as a percentage of Covered Payroll                     | 13.13%        | 13.63%        | 11.56%       | 12.16%       | 11.04%       | 11.17%       | 15.81%       | 8.60%        | *          | 5.25%        | *         |

Notes to Schedule:

Valuation Date:

Actuarially determined contribution rates are calculated as of January 1 for the odd valuation year at least two years prior to the end of the fiscal year in which the contributions were reported.

Methods and Assumptions Used to Determine Contribution Rates:

Actuarial Cost Method  
Amortization Method  
Remaining Amortization Period  
Asset Valuation Method  
Inflation  
Salary Increases  
Investment Rate of Return  
Pre-Retirement Mortality  
Post-Retirement Mortality:

Entry Age  
Level Dollar Closed  
8 years  
Based Upon Municipal Reserves in PMRS (Fair Value)  
3.0%  
Age/Merit Scale including inflation ranging from 3.0% to 8.3%.  
5.25% net of pension plan investment expense, including inflation.  
Males - RP 2000 with 1 year set back  
Females - RP 2000 with 5 year set back  
Sex distinct RP-2000 Combined Mortality

\* - Information not available



LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA

REQUIRED SUPPLEMENTARY INFORMATION  
SCHEDULE OF CHANGES IN THE SUBURBAN NET OPEB LIABILITY  
AND RELATED RATIOS  
LAST 10 FISCAL YEARS

|                                                                                                | *              | *              | *            | *              | * |
|------------------------------------------------------------------------------------------------|----------------|----------------|--------------|----------------|---|
|                                                                                                | 2020           | 2019           | 2018         | 2017           |   |
| Total OPEB Liability Suburban Plan                                                             |                |                |              |                |   |
| Service Cost                                                                                   | \$ 7,418       | \$ 7,065       | \$ 7,960     | \$ 7,580       |   |
| Interest                                                                                       | 167,315        | 162,742        | 158,365      | 151,765        |   |
| Changes of Benefit Terms                                                                       | -              | -              | -            | -              |   |
| Differences Between Expected and Actual Experience                                             | -              | 90,059         | -            | -              |   |
| Changes of Assumptions                                                                         | -              | (99,162)       | -            | -              |   |
| Benefit Payments                                                                               | (115,648)      | (110,336)      | (92,904)     | (61,525)       |   |
| Net Change in Suburban Plan Total OPEB Liability                                               | 59,085         | 50,368         | 73,421       | 97,820         |   |
| Suburban Plan Total OPEB Liability - Beginning                                                 | 2,141,848      | 2,091,480      | 2,018,059    | 1,920,239      |   |
| Suburban Plan Total OPEB Liability - Ending (a)                                                | \$ 2,200,933   | \$ 2,141,848   | \$ 2,091,480 | \$ 2,018,059   |   |
| Suburban Plan Fiduciary Net Position                                                           |                |                |              |                |   |
| Contributions - Employer                                                                       | \$ 27,393      | \$ 22,928      | \$ 13,376    | \$ -           |   |
| Net Investment Income                                                                          | 292,386        | 645,121        | (220,248)    | 485,937        |   |
| Benefit Payments                                                                               | (115,648)      | (110,336)      | (92,904)     | (61,526)       |   |
| Administrative Expense                                                                         | -              | -              | -            | -              |   |
| Net Change in Suburban Plan Fiduciary Net Position                                             | 204,131        | 557,713        | (299,776)    | 424,411        |   |
| Suburban Plan Fiduciary Net Position - Beginning                                               | 3,385,901      | 2,828,188      | 3,127,964    | 2,703,553      |   |
| Suburban Plan Fiduciary Net Position - Ending (b)                                              | \$ 3,590,032   | \$ 3,385,901   | \$ 2,828,188 | \$ 3,127,964   |   |
| Suburban Plan Net OPEB Liability/(Asset) - Ending (a) - (b)                                    | \$ (1,389,099) | \$ (1,244,053) | \$ (736,708) | \$ (1,109,905) |   |
| Suburban Plan Fiduciary Net Position as a Percentage of the Total Suburban Plan OPEB Liability | 163.11%        | 158.08%        | 135.22%      | 155.00%        |   |
| Covered Payroll Suburban Plan                                                                  | \$ 1,209,753   | \$ 1,152,146   | \$ 1,098,115 | \$ 1,045,824   |   |
| Suburban Plan Net OPEB Liability/(Asset) as a Percentage of Covered Payroll                    | -114.83%       | -107.98%       | -67.09%      | -106.13%       |   |

\* - Information only available for four years. Future years will be added as information becomes available.

LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA

REQUIRED SUPPLEMENTARY INFORMATION  
SCHEDULE OF CONTRIBUTIONS SUBURBAN OPEB PLAN

LAST 10 FISCAL YEARS

|                                                                     | *<br>2020          | *<br>2019          | *<br>2018          | *<br>2017    |
|---------------------------------------------------------------------|--------------------|--------------------|--------------------|--------------|
| Actuarially Determined Contribution                                 |                    |                    |                    |              |
| Contribution in Relation to the Actuarially Determined Contribution | \$ -               | \$ -               | \$ -               | \$ -         |
|                                                                     | 27,393             | 22,928             | 13,376             | -            |
| Contribution Deficiency (Excess)                                    | <u>\$ (27,393)</u> | <u>\$ (22,928)</u> | <u>\$ (13,376)</u> | <u>\$ -</u>  |
| Suburban Plan Covered Payroll                                       | \$ 1,209,753       | \$ 1,152,146       | \$ 1,098,115       | \$ 1,045,824 |
| Contributions as a Percentage of Covered Payroll                    | 2.26%              | 1.99%              | 1.22%              | 0.00%        |

Notes to Schedule:

Valuation Date:

Actuarially determined contribution rates are calculated as of January 1, two years prior to the end of the fiscal year in which contributions are reported.

Methods and assumptions used to determine contribution rates:

|                             |                                                                                                               |
|-----------------------------|---------------------------------------------------------------------------------------------------------------|
| Actuarial Cost Method       | Entry Age Normal                                                                                              |
| Amortization Method         | Level percentage of pay                                                                                       |
| Amortization Period         | 20 years                                                                                                      |
| Asset Valuation Method      | 5-year smoothed market                                                                                        |
| Inflation                   | 2.17%                                                                                                         |
| Healthcare Cost Trend Rates | 20% during 2020 followed by 8.25% during 2021 reduced by .25% per year to an ultimate rate of 5.00% per year. |
| Salary Increases            | 5.00%                                                                                                         |
| Investment Rate of Return   | 8.00%                                                                                                         |
| Retirement Age              | 65                                                                                                            |
| Mortality                   | RP-2014 at 2006 Blue Collar Generational Tables Using Scale MP-2017                                           |

\* - Information only available for four years. Future years will be added as information becomes available.

LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA

REQUIRED SUPPLEMENTARY INFORMATION  
SCHEDULE OF INVESTMENT RETURNS SUBURBAN OPEB PLAN

LAST 10 FISCAL YEARS

|                                                                 | <sup>*</sup><br>2020 | <sup>*</sup><br>2019 | <sup>*</sup><br>2018 | <sup>*</sup><br>2017 |
|-----------------------------------------------------------------|----------------------|----------------------|----------------------|----------------------|
| Annual money-weighted rate of return, net of investment expense | 8.60%                | 23.20%               | -7.13%               | 18.18%               |

\* - Information only available for four years. Future years will be added as information becomes available.

LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA

REQUIRED SUPPLEMENTARY INFORMATION  
SCHEDULE OF CHANGES IN THE CITY DIVISION'S TOTAL OPEB LIABILITY  
AND RELATED RATIOS  
LAST 10 FISCAL YEARS

|                                                                                     | *            | *            | *            |
|-------------------------------------------------------------------------------------|--------------|--------------|--------------|
|                                                                                     | 2020         | 2019         | 2018         |
| Total OPEB Liability City Division Plan                                             |              |              |              |
| Service Cost                                                                        | \$ 269,018   | \$ 184,957   | \$ 142,941   |
| Interest                                                                            | 72,855       | 106,760      | 73,458       |
| Changes of Benefit Terms                                                            | -            | (55,110)     | -            |
| Differences Between Expected and Actual Experience                                  | -            | 383,657      | -            |
| Changes of Assumptions                                                              | 583,524      | 322,110      | -            |
| Benefit Payments                                                                    | (45,177)     | (17,530)     | (24,498)     |
| Net Change in City Division Plan Total OPEB Liability                               | 880,220      | 924,844      | 191,901      |
| City Division Plan Total OPEB Liability - Beginning                                 | 2,944,923    | 2,020,079    | 1,828,178    |
| City Division Plan Total OPEB Liability - Ending (a)                                | \$ 3,825,143 | \$ 2,944,923 | \$ 2,020,079 |
| Covered Payroll City Division Plan                                                  | \$ 4,538,767 | \$ 4,322,635 | \$ 3,279,472 |
| City Division Plan Total OPEB Liability as a Percentage of Covered-Employee Payroll | 84.28%       | 68.13%       | 61.60%       |

\* - Information only available for four years. Future years will be added as information becomes available.

\*\* - The 12/31/2020 measurement date had a change in the discount rate from 3.75% to 1.93%.

No assets are accumulated in a trust that meets the criteria in paragraph 4 of GASB Statement No. 75.

**OTHER  
SUPPLEMENTARY  
INFORMATION**

LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA

COMBINING SCHEDULE OF REVENUES, EXPENSES AND CHANGES IN NET POSITION  
SUBURBAN WASTEWATER FUND  
For the year ended December 31, 2020

|                                                                         | Western Lehigh<br>Interceptor System | West. Weisenberg<br>Wastewater | Common Rate<br>Wastewater Fund | Other<br>Wastewater Funds | Total<br>Wastewater Fund |
|-------------------------------------------------------------------------|--------------------------------------|--------------------------------|--------------------------------|---------------------------|--------------------------|
| <b>Operating Revenues</b>                                               |                                      |                                |                                |                           |                          |
| Charges for Services                                                    | \$ 6,306,159                         | 329,805                        | \$ 786,723                     | \$ 8,557,914              | \$ 15,980,601            |
| Other Income                                                            | 104,692                              | -                              | 35,440                         | 53,694                    | 193,826                  |
| Total Operating Revenues                                                | 6,410,851                            | 329,805                        | 822,163                        | 8,611,608                 | 16,174,427               |
| <b>Operating Expenses</b>                                               |                                      |                                |                                |                           |                          |
| Salaries and Wages                                                      | 316,277                              | 72,617                         | 217,895                        | 193,881                   | 800,670                  |
| Employee Benefits                                                       | 169,642                              | 48,393                         | 143,511                        | 129,883                   | 491,429                  |
| General and Administrative                                              | 28,088                               | 7,723                          | 23,670                         | 17,661                    | 77,142                   |
| Utilities                                                               | 78,568                               | 19,628                         | 44,922                         | 153,301                   | 296,419                  |
| Materials and Supplies                                                  | 60,331                               | 23,350                         | 71,299                         | 77,059                    | 232,039                  |
| Miscellaneous Services                                                  | 326,508                              | 22,659                         | 174,821                        | 5,733,861                 | 6,257,849                |
| Treatment and Transportation                                            | 2,885,023                            | -                              | 21,935                         | -                         | 2,906,958                |
| Depreciation and Amortization                                           | 3,003,369                            | 135,343                        | 517,621                        | 2,280,850                 | 5,937,183                |
| Total Operating Expenses                                                | 6,867,806                            | 329,713                        | 1,215,674                      | 8,586,496                 | 16,999,689               |
| <b>Operating Income (Loss)</b>                                          | (456,955)                            | 92                             | (393,511)                      | 25,112                    | (825,262)                |
| <b>Nonoperating Revenues (Expenses)</b>                                 |                                      |                                |                                |                           |                          |
| Tapping and Capital Recovery Fees                                       | 3,021,158                            | 98,120                         | 107,409                        | 349,005                   | 3,575,692                |
| Meter Sales                                                             | -                                    | 4,228                          | 4,249                          | 178                       | 8,655                    |
| Inspection and Plan Reviews                                             | 135,600                              | 272                            | -                              | 58,054                    | 193,926                  |
| Interest Earnings                                                       | (78,665)                             | (31,661)                       | (74,245)                       | (15,136)                  | (199,707)                |
| Interest Expense                                                        | (30,337)                             | -                              | (494)                          | (11,867)                  | (42,698)                 |
| Other Expense                                                           | 5,594                                | -                              | 420                            | 180                       | 6,194                    |
| Total Nonoperating Revenues (Expenses)                                  | 3,063,350                            | 70,959                         | 37,339                         | 380,414                   | 3,542,062                |
| <b>Increase (Decrease) in net position before capital contributions</b> | 2,596,395                            | 71,051                         | (356,172)                      | 405,526                   | 2,716,800                |
| <b>Capital Contributions</b>                                            |                                      |                                |                                |                           |                          |
| Capital Grant                                                           | -                                    | -                              | -                              | -                         | -                        |
| Capital Assets Provided by Developers and Others                        | -                                    | -                              | 7,620                          | -                         | 7,620                    |
| Total Capital Contributions                                             | -                                    | -                              | 7,620                          | -                         | 7,620                    |
| <b>Increase (Decrease) in Net Position</b>                              | 2,596,395                            | 71,051                         | (348,552)                      | 405,526                   | 2,724,420                |
| <b>Net Position at Beginning of Year</b>                                | 38,792,244                           | 2,761,631                      | 10,195,866                     | 47,639,598                | 99,389,339               |
| <b>Net Position at End of Year</b>                                      | \$ 41,388,639                        | \$ 2,832,682                   | \$ 9,847,314                   | \$ 48,045,124             | \$ 102,113,759           |

## **SUPPLEMENTAL SCHEDULES**

- Schedule of Cash and Cash Equivalents
- Combined Schedule of Certificates of Deposit – All Funds
- Schedule of Cash Receipts and Disbursements and Changes in Account Balances:
  - Fixed Rate Water Revenue Bonds, 2001, 2010, 2015 and 2017 Series
- Budgetary Comparison

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**SCHEDULE OF CASH AND CASH EQUIVALENTS  
CURRENT AND RESTRICTED  
December 31, 2020**

| Financial Institution            | Total                | Enterprise Funds    |                     |                      |
|----------------------------------|----------------------|---------------------|---------------------|----------------------|
|                                  |                      | Suburban Division   |                     | City Division        |
|                                  |                      | Water               | Wastewater          | Water & Wastewater   |
| Bank of New York                 | \$ 1,424,986         | \$ 1,424,986        | \$ -                | \$ -                 |
| Financial Northeastern Companies | 1,159,000            | 262,899             | 896,101             | -                    |
| Branch Banking & Trust           | 7,022,872            | 2,517,966           | 4,504,906           | -                    |
| Fulton Bank                      | 3,381,327            | 3,965,389           | (676,273)           | 92,211               |
| PNC Bank (1)                     | 3,999,199            | 930,725             | 3,068,474           | -                    |
| M & T Bank                       | 61,403,329           | -                   | -                   | 61,403,329           |
| Total                            | <u>\$ 78,390,713</u> | <u>\$ 9,101,965</u> | <u>\$ 7,793,208</u> | <u>\$ 61,495,540</u> |

(1) Represents the Authority's share of the Pennsylvania School District Liquid Asset Fund.



**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**COMBINED SCHEDULE OF CERTIFICATES OF DEPOSIT - ALL FUNDS  
CURRENT AND RESTRICTED FUNDS  
December 31, 2020**

|                                           | <u>Date of<br/>Purchase</u> | <u>Date of<br/>Maturity</u> | <u>% Rate of<br/>Return</u> | <u>Amount</u> | <u>Total<br/>By Fund</u> |
|-------------------------------------------|-----------------------------|-----------------------------|-----------------------------|---------------|--------------------------|
| <b>CERTIFICATES OF DEPOSIT:</b>           |                             |                             |                             |               |                          |
| Enterprise Funds:                         |                             |                             |                             |               |                          |
| <u>Suburban Water</u>                     |                             |                             |                             |               |                          |
| Farmers State Bank                        | 11/6/19                     | 10/6/21                     | 1.60                        | 251,971       |                          |
| Stearns Bank NA                           | 2/10/20                     | 2/10/22                     | 1.55                        | 253,116       |                          |
| Florida Capital Bank                      | 5/15/20                     | 5/16/22                     | 0.50                        | 249,044       |                          |
| Quantum National Bank                     | 5/21/20                     | 5/23/22                     | 0.35                        | 248,955       |                          |
| Security State Bank                       | 5/22/20                     | 5/23/22                     | 0.35                        | 248,955       |                          |
| Maine Community Bank                      | 6/5/20                      | 6/6/22                      | 0.30                        | 245,784       |                          |
| PSDLAF Flex Pool                          | 12/23/20                    | 1/14/21                     | 0.02                        | 1,000,000     | \$ 2,497,825             |
| <u>Suburban Wastewater</u>                |                             |                             |                             |               |                          |
| Ally Bank                                 | 1/10/19                     | 1/11/21                     | 2.800                       | 249,209       |                          |
| Wells Fargo Bank, National Assn           | 1/9/19                      | 1/11/21                     | 2.900                       | 249,217       |                          |
| Citibank, National Assn                   | 1/9/19                      | 1/22/21                     | 2.900                       | 245,213       |                          |
| Continental Bank                          | 4/15/19                     | 2/16/21                     | 2.40                        | 98,301        |                          |
| Texas Trust CU                            | 2/21/19                     | 2/22/21                     | 2.800                       | 245,973       |                          |
| The Jefferson Bank                        | 3/29/19                     | 3/29/21                     | 2.500                       | 246,485       |                          |
| Sallie Mae Bank                           | 4/10/19                     | 4/12/21                     | 2.450                       | 249,689       |                          |
| University of Iowa Community CU           | 5/15/19                     | 5/14/21                     | 2.500                       | 250,269       |                          |
| Barclays Bank Delaware                    | 7/17/19                     | 7/19/21                     | 2.000                       | 247,656       |                          |
| Goldman Sachs Bank USA                    | 8/21/19                     | 8/23/21                     | 1.900                       | 252,008       |                          |
| New York Community Bank                   | 9/27/19                     | 9/27/21                     | 1.800                       | 126,624       |                          |
| Westfield Bank                            | 5/15/20                     | 11/15/21                    | 0.350                       | 249,655       |                          |
| Greenwood CU                              | 11/20/19                    | 11/22/21                    | 1.700                       | 246,580       |                          |
| Lafayette FCU                             | 11/22/19                    | 11/22/21                    | 1.700                       | 252,673       |                          |
| State Bank of India                       | 11/27/19                    | 11/29/21                    | 1.850                       | 254,107       |                          |
| Morgan Stanley Private Bank               | 1/16/20                     | 1/18/22                     | 1.750                       | 249,349       |                          |
| Morgan Stanley Bank, NA                   | 1/16/20                     | 1/18/22                     | 1.75                        | 249,349       |                          |
| Wells Fargo National Bank West            | 1/17/20                     | 1/18/22                     | 1.8                         | 249,476       |                          |
| Midfirst Bank                             | 8/19/20                     | 2/22/22                     | 0.150                       | 248,246       |                          |
| California Bank of Commerce               | 8/19/20                     | 2/22/22                     | 0.150                       | 200,084       |                          |
| Meridian Bank                             | 8/28/20                     | 2/28/22                     | 0.150                       | 249,249       |                          |
| BMO Harris Bank National Assn             | 5/22/20                     | 3/22/22                     | 0.350                       | 245,850       |                          |
| American National Bank - Fox Cities       | 5/20/20                     | 5/20/22                     | 0.400                       | 246,107       |                          |
| Merrick Bank                              | 8/14/20                     | 8/15/22                     | 0.200                       | 245,458       |                          |
| Greenstate Credit Union                   | 8/18/20                     | 8/18/22                     | 0.300                       | 245,857       |                          |
| Bank Hapoalim B. M.                       | 8/26/20                     | 8/26/22                     | 0.250                       | 249,675       |                          |
| Industrial and Commercial Bank of China U | 8/28/20                     | 8/28/22                     | 0.200                       | 245,387       | \$ 6,387,746             |
| TOTAL CERTIFICATES OF DEPOSIT             |                             |                             |                             |               | <u>\$ 8,885,571</u>      |

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA**

**SCHEDULE OF CASH RECEIPTS AND DISBURSEMENTS AND CHANGES IN ACCOUNT BALANCES  
SUBURBAN WATER FUND - TRUSTEE ACCOUNTS - FIXED RATE WATER REVENUE BONDS,  
December 31, 2020**

**For the Year Ended December 31, 2020**

|                                                                | Debt Service<br>Reserve<br>Accounts | Debt Service<br>Accounts | Construction<br>Accounts | Total               |
|----------------------------------------------------------------|-------------------------------------|--------------------------|--------------------------|---------------------|
| RECEIPTS:                                                      |                                     |                          |                          |                     |
| Interest Income                                                | \$ 4,231                            | \$ 1                     | \$ 323                   | \$ 4,555            |
| Bonds Payable                                                  | -                                   | -                        | -                        | -                   |
| Bond Refinancing                                               | -                                   | -                        | -                        | -                   |
| Treasury Notes Matured                                         | -                                   | -                        | -                        | -                   |
| Receipts from LCA                                              | -                                   | 899,022                  | -                        | 899,022             |
| Total Receipts                                                 | 4,231                               | 899,023                  | 323                      | 903,577             |
| DISBURSEMENTS:                                                 |                                     |                          |                          |                     |
| Interest Payments                                              | -                                   | 899,022                  | -                        | 899,022             |
| Water Capital Expenditures                                     | -                                   | -                        | 1,627,762                | 1,627,762           |
| Principal Reduction                                            | -                                   | -                        | -                        | -                   |
| 2001 Bonds Payable                                             | -                                   | -                        | -                        | -                   |
| Financing Costs                                                | -                                   | -                        | -                        | -                   |
| Underwriters Discount                                          | -                                   | -                        | -                        | -                   |
| Transfers to Debt Service Accounts                             | -                                   | -                        | -                        | -                   |
| Miscellaneous Expense                                          | -                                   | -                        | -                        | -                   |
| Total Disbursements                                            | -                                   | 899,022                  | 1,627,762                | 2,526,784           |
| EXCESS OF RECEIPTS OVER (UNDER)<br>DISBURSEMENTS               | 4,231                               | 1                        | (1,627,439)              | (1,623,207)         |
| TRANSFERS TO (FROM) - NET                                      | -                                   | -                        | -                        | -                   |
| EXCESS OF RECEIPTS OVER (UNDER)<br>DISBURSEMENTS AND TRANSFERS | 4,231                               | 1                        | (1,627,439)              | (1,623,207)         |
| BALANCE, JANUARY 1, 2020                                       | 1,478,716                           | 16,872                   | 1,722,854                | 3,218,442           |
| BALANCE, DECEMBER 31, 2020                                     | <u>\$ 1,482,947</u>                 | <u>\$ 16,873</u>         | <u>\$ 95,415</u>         | <u>\$ 1,595,235</u> |
| BALANCE CONSISTS OF:                                           |                                     |                          |                          |                     |
| Cash and Cash Equivalents                                      | \$ 1,482,947                        | \$ 16,873                | \$ 95,415                | 1,595,235           |
| Certificates of Deposit (CD):<br>(none)                        | -                                   | -                        | -                        | -                   |
| CD Total                                                       | -                                   | -                        | -                        | -                   |
| Cash and CD Total                                              | <u>\$ 1,482,947</u>                 | <u>\$ 16,873</u>         | <u>\$ 95,415</u>         | <u>\$ 1,595,235</u> |

Note: The Cash and Cash Equivalent amount on this schedule balances to the financial statement as follows:  
Cash and Cash Equivalent \$1,595,235 plus Other Developer Savings \$263,258 equals \$1,858,493.

LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA

BUDGETARY COMPARISON SCHEDULE

For the Year Ended December 31, 2020

(With comparative actual amounts for Year Ended December 31, 2019)

|                                                                | 2020             |                | 2019           |                | Variance of 2020 Actual Data to |              |
|----------------------------------------------------------------|------------------|----------------|----------------|----------------|---------------------------------|--------------|
|                                                                | Budgeted Amounts |                | Actual         | Actual         | Budget                          | Actual       |
|                                                                | Original         | Final          |                |                |                                 |              |
| <b>OPERATING REVENUES:</b>                                     |                  |                |                |                |                                 |              |
| Charges for Services                                           | \$ 63,750,535    | \$ 63,750,535  | \$ 64,563,562  | \$ 60,144,609  | \$ 813,027                      | \$ 4,418,953 |
| Rent                                                           | 111,213          | 111,213        | -              | 125,253        | (111,213)                       | (125,253)    |
| Other Income                                                   | 481,904          | 481,904        | 461,215        | 818,597        | (20,689)                        | (357,382)    |
| Total Operating Revenues                                       | 64,343,652       | 64,343,652     | 65,024,777     | 61,088,459     | 681,125                         | 3,936,318    |
| <b>OPERATING EXPENSES</b>                                      |                  |                |                |                |                                 |              |
| Salaries and Wages                                             | 15,461,493       | 15,461,493     | 14,881,446     | 15,133,925     | 580,047                         | (252,479)    |
| Benefits, General and Administrative                           | 1,742,552        | 1,742,552      | 1,860,344      | 1,883,011      | (117,792)                       | (22,667)     |
| Utilities                                                      | 3,296,239        | 3,296,239      | 2,530,959      | 2,890,471      | 765,280                         | (359,512)    |
| Materials and Supplies                                         | 3,010,092        | 2,960,092      | 1,904,740      | 2,113,030      | 1,055,352                       | (208,290)    |
| Miscellaneous Services                                         | 11,467,941       | 11,517,941     | 11,861,527     | 10,344,156     | (343,586)                       | 1,517,371    |
| Treatment and Transportation                                   | 3,339,679        | 3,339,679      | 2,918,884      | 3,395,115      | 420,795                         | (476,231)    |
| Depreciation and Amortization                                  | 13,233,000       | 13,233,000     | 15,003,542     | 13,008,758     | (1,770,542)                     | 1,994,784    |
| Total Operating Expenses                                       | 51,550,996       | 51,550,996     | 50,961,442     | 48,768,466     | 589,554                         | 2,192,976    |
| <b>OPERATING LOSS</b>                                          | 12,792,656       | 12,792,656     | 14,063,335     | 12,319,993     | 1,270,679                       | 1,743,342    |
| <b>NONOPERATING REVENUES (EXPENSES):</b>                       |                  |                |                |                |                                 |              |
| Tapping and Capital Recovery Fees                              |                  |                |                |                |                                 |              |
| Meter Sales                                                    | 2,806,700        | 2,806,700      | 5,942,203      | 3,699,651      | 3,135,503                       | 2,242,552    |
| Inspection and Plan Reviews                                    | 400,000          | 400,000        | 102,280        | 117,229        | (297,720)                       | (14,949)     |
| Interest Earnings                                              | 2,701,382        | 2,701,382      | 1,168,503      | 884,107        | (1,532,879)                     | 284,396      |
| Interest Expense                                               | 1,260,000        | 1,260,000      | 440,959        | 1,720,665      | (819,041)                       | (1,279,706)  |
| Other Expense                                                  | (21,667,894)     | (21,667,894)   | (18,899,554)   | (21,144,726)   | 2,768,340                       | 2,245,172    |
| Other Income                                                   | (3,818,604)      | (3,818,604)    | (4,306,460)    | (1,416,796)    | (487,856)                       | (2,889,664)  |
| Total Nonoperating Revenues (Expenses)                         | 71,500           | 71,500         | 163,322        | 154,298        | 91,822                          | 9,024        |
| Increase (decrease) in net assets before capital contributions | (18,246,916)     | (18,246,916)   | (15,388,747)   | (15,985,572)   | 2,858,169                       | 596,825      |
| <b>Capital Contributions:</b>                                  |                  |                |                |                |                                 |              |
| Capital Grant                                                  | -                | -              | -              | -              | -                               | -            |
| Capital Assets Provided by Developers and Others               | -                | -              | 217,413        | 1,731,419      | 217,413                         | (1,514,006)  |
| Total Capital Contributions                                    | -                | -              | 217,413        | 1,731,419      | 217,413                         | (1,514,006)  |
| <b>Increase (Decrease) in Net Position</b>                     | \$ (5,454,260)   | \$ (5,454,260) | \$ (1,107,999) | \$ (1,934,160) | \$ 4,346,261                    | \$ 826,161   |

## STATISTICAL SECTION

**Sources:** *Unless otherwise noted, the information in these schedules is derived from the annual comprehensive financial reports for the relevant year.*

## **FINANCIAL TRENDS**

This section provides information on Changes in Net Assets/Net Position Components and Changes in Net Assets/Net Position.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
NET ASSETS/ NET POSITION BY COMPONENT**

|                                  | 2011           | 2012           | 2013           | 2014           | 2015           |
|----------------------------------|----------------|----------------|----------------|----------------|----------------|
| Net Position:                    |                |                |                |                |                |
| Net Investment in Capital Assets | \$ 148,488,162 | \$ 150,965,827 | \$ 152,069,658 | \$ 149,158,789 | \$ 147,742,061 |
| Restricted for Debt Service      | 1,744,341      | 1,733,035      | 1,207,927      | 1,209,103      | 1,209,239      |
| Unrestricted                     | 24,921,328     | 29,853,215     | 23,050,748     | 20,106,131     | 11,658,428     |
| Total Net Assets                 | \$ 175,153,831 | \$ 182,552,077 | \$ 176,328,333 | \$ 170,474,023 | \$ 160,609,728 |
|                                  | 2016           | 2017           | 2018           | 2019           | 2020           |
| Net Position:                    |                |                |                |                |                |
| Net Investment in Capital Assets | \$ 152,434,977 | \$ 162,309,930 | \$ 159,792,232 | \$ 168,787,946 | \$ 163,724,401 |
| Restricted for Debt Service      | 1,209,379      | 1,365,470      | 1,380,654      | 1,403,094      | 1,407,066      |
| Unrestricted                     | 1,944,553      | (10,549,848)   | (14,127,210)   | (25,079,524)   | (21,127,950)   |
| Total Net Assets/ Net Position   | \$ 155,588,909 | \$ 153,125,552 | \$ 147,045,676 | \$ 145,111,516 | \$ 144,003,517 |

**Note: Beginning in 2012, the amounts reported reflect the adoption of GASB 65. Amounts prior to 2012 have not been adjusted to reflect the adoption of GASB 65.**

**Beginning in 2015, the amounts reported reflect the adoption of GASB 68 and 71. Amounts prior to 2015 have not been adjusted to reflect the adoption of GASB 68 and 71.**

**Beginning in 2018, the amounts reported reflect the adoption of GASB 75. Amounts prior to 2018 have not been adjusted to reflect the adoption of GASB 75.**

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
CHANGES IN NET ASSETS/ NET POSITION**

| Fiscal Year | Operating Revenues | Operating Expenses | Operating Income (Loss) | Total Nonoperating Revenues (Expenses) | (1) (2) (3)<br>Increase<br>(Decrease) in<br>Net Assets/<br>Net Position<br>Before Capital<br>Contributions | Capital Contributions | (1) (2) (3)<br>Change in<br>Net Assets/<br>Net Position |
|-------------|--------------------|--------------------|-------------------------|----------------------------------------|------------------------------------------------------------------------------------------------------------|-----------------------|---------------------------------------------------------|
| 2011        | \$ 21,113,193      | \$ 22,492,947      | \$ (1,379,754)          | \$ (1,325,323)                         | \$ (2,705,077)                                                                                             | \$ 2,404,739          | \$ (300,338)                                            |
| 2012        | 22,813,851         | 22,195,989         | 617,862                 | 507,776                                | 1,125,638                                                                                                  | 6,740,271             | 7,865,909                                               |
| 2013        | 37,820,024         | 31,578,208         | 6,241,816               | (13,339,719)                           | (7,097,903)                                                                                                | 874,159               | (6,223,744)                                             |
| 2014        | 56,310,007         | 45,179,303         | 11,130,704              | (17,829,251)                           | (6,698,547)                                                                                                | 844,237               | (5,854,310)                                             |
| 2015        | 47,477,636         | 42,312,587         | 5,165,049               | (15,952,394)                           | (10,787,345)                                                                                               | 1,692,811             | (9,094,534)                                             |
| 2016        | 53,361,394         | 44,722,023         | 8,639,371               | (18,205,887)                           | (9,566,516)                                                                                                | 4,545,697             | (5,020,819)                                             |
| 2017        | 54,808,820         | 46,719,135         | 8,089,685               | (18,933,193)                           | (10,843,508)                                                                                               | 8,380,151             | (2,463,357)                                             |
| 2018        | 59,507,754         | 46,926,940         | 12,580,814              | (19,473,727)                           | (6,892,913)                                                                                                | 1,828,692             | (5,064,221)                                             |
| 2019        | 61,088,459         | 48,768,466         | 12,319,993              | (15,985,572)                           | (3,665,579)                                                                                                | 1,731,419             | (1,934,160)                                             |
| 2020        | 65,024,777         | 50,961,442         | 14,063,335              | (15,388,747)                           | (1,325,412)                                                                                                | 217,413               | (1,107,999)                                             |

**NOTES:**

(1) Beginning in 2012, the amounts reported reflect the adoption of GASB 65. Amounts prior to 2012 have not been adjusted to reflect the adoption of GASB 65.

(2) Beginning in 2015, the amounts reported reflect the adoption of GASB 68 and 71. Amounts prior to 2015 have not been adjusted to reflect the adoption of GASB 68 and 71.

(3) Beginning in 2018, the amounts reported reflect the adoption of GASB 75. Amounts prior to 2018 have not been adjusted to reflect the adoption of GASB 75.

## **REVENUE CAPACITY**

This section provides information on the major sources of revenue, expenses, schedules of rates and charges, largest industrial and commercial revenue sources and collections information.



**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
REVENUES BY SOURCE**

|                                                    | 2011          | 2012          | 2013          | 2014          | 2015          | 2016          | 2017          | 2018          | 2019          | 2020          |
|----------------------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>Suburban - Water Fund (1)</b>                   |               |               |               |               |               |               |               |               |               |               |
| <b>Operating Revenues:</b>                         |               |               |               |               |               |               |               |               |               |               |
| Customer Charges:                                  |               |               |               |               |               |               |               |               |               |               |
| Large Industrial                                   | \$ 579,532    | \$ 668,025    | \$ 872,859    | \$ 1,052,611  | \$ 1,088,772  | \$ 1,101,016  | \$ 1,014,054  | \$ 1,055,882  | \$ 1,118,032  | \$ 1,359,677  |
| Industrial                                         | 1,064,711     | 1,299,095     | 1,533,331     | 1,784,254     | 1,959,556     | 1,924,336     | 1,971,310     | 2,023,984     | 2,118,324     | 2,331,984     |
| Commercial/Institutional                           | 736,500       | 796,489       | 839,616       | 870,446       | 934,255       | 1,044,364     | 1,134,993     | 1,193,232     | 1,286,316     | 1,480,637     |
| Residential                                        | 3,089,822     | 3,162,666     | 3,218,823     | 3,262,746     | 3,336,469     | 3,377,843     | 3,483,627     | 3,617,000     | 3,889,305     | 4,353,510     |
| Other                                              | 70,089        | 75,088        | 88,464        | 79,414        | 102,100       | 116,829       | 107,273       | 145,911       | 143,311       | 24,887        |
| Private Fire Service                               | 588,050       | 602,431       | 617,482       | 667,741       | 709,983       | 757,651       | 795,121       | 830,655       | 846,199       | 871,241       |
| Public Fire Service                                | 331,853       | 344,763       | 346,552       | 348,793       | 350,225       | 354,805       | 357,410       | 342,867       | 378,629       | 412,199       |
| Total Charges for Service                          | 6,460,557     | 6,948,557     | 7,517,127     | 8,066,005     | 8,481,360     | 8,676,844     | 8,863,788     | 9,209,531     | 9,760,116     | 10,834,135    |
| Other Income                                       | 39,915        | 73,532        | 20,941        | 42,121        | 51,327        | 41,152        | 99,307        | 40,949        | 25,172        | 32,540        |
| Rent                                               | 127,819       | 119,003       | 80,930        | 110,396       | 111,745       | 97,011        | 91,019        | 98,405        | 125,253       | -             |
| Total Operating Revenues                           | 6,628,291     | 7,141,032     | 7,618,998     | 8,218,522     | 8,644,432     | 8,815,007     | 9,054,114     | 9,348,885     | 9,930,541     | 10,866,675    |
| <b>Nonoperating Revenues:</b>                      |               |               |               |               |               |               |               |               |               |               |
| Tapping & Capital Recovery Fees                    |               |               |               |               |               |               |               |               |               |               |
| Meter Sales                                        | 117,797       | 264,493       | 219,845       | 351,871       | 276,202       | 426,177       | 455,405       | 221,405       | 418,775       | 464,648       |
| Inspection, Plan Reviews, & Project Reimbursements | 95,160        | 101,659       | 105,361       | 81,781        | 88,082        | 156,365       | 112,468       | 85,259        | 94,763        | 77,685        |
| Interest Income                                    | 73,321        | 75,386        | 101,072       | 102,307       | 207,992       | 160,751       | 154,433       | 183,148       | 393,187       | 318,263       |
| Other Income                                       | 95,368        | 74,852        | 54,544        | 47,092        | 54,422        | 91,619        | 127,486       | 255,439       | 194,200       | 84,958        |
| Total Nonoperating Revenues                        | 291,384       | 326,708       | 302,927       | 134,258       | 535,131       | 112,426       | 109,343       | 86,971        | 93,928        | 105,508       |
| Total Water Fund Revenues                          | 6,930,030     | 7,467,740     | 7,921,925     | 8,352,776     | 9,179,567     | 8,937,433     | 9,163,457     | 9,435,818     | 10,024,482    | 10,972,183    |
| <b>Suburban - Wastewater Fund (1)</b>              |               |               |               |               |               |               |               |               |               |               |
| <b>Operating Revenues:</b>                         |               |               |               |               |               |               |               |               |               |               |
| User Charges                                       | 14,268,656    | 15,508,454    | 15,935,816    | 17,290,464    | 11,616,373    | 12,756,663    | 12,568,375    | 13,720,330    | 13,840,156    | 15,980,601    |
| Other Income                                       | 216,246       | 164,305       | 97,876        | 213,335       | 252,802       | 116,267       | 290,406       | 294,099       | 241,900       | 193,826       |
| Total Operating Revenues                           | 14,484,902    | 15,672,759    | 16,033,692    | 17,503,799    | 11,869,175    | 12,872,930    | 12,858,781    | 14,014,429    | 14,082,056    | 16,174,427    |
| <b>Nonoperating Revenues:</b>                      |               |               |               |               |               |               |               |               |               |               |
| Tapping & Capital Recovery Fees                    |               |               |               |               |               |               |               |               |               |               |
| Meter Sales                                        | 142,319       | 1,751,039     | 876,328       | 253,524       | 2,385,116     | 1,165,372     | 449,376       | 523,526       | 1,573,749     | 3,575,692     |
| Interest Income                                    | 111,884       | 115,115       | 100,112       | 87,753        | 109,829       | 118,529       | 162,034       | 222,306       | 332,847       | 193,926       |
| Inspection, Plan Reviews, & Project Reimbursements | 573           | 266           | 26,372        | 502,204       | 689           | 31,181        | 12,444        | 37,773        | 42,518        | 6,655         |
| Other Income                                       | 6,970         | 435           | 480           | 630           | 930           | 1,090         | 7,520         | 690           | 711           | 6,194         |
| Total Nonoperating Revenues                        | 261,746       | 1,866,855     | 1,003,292     | 844,111       | 2,495,564     | 1,328,172     | 631,374       | 784,295       | 1,949,825     | 3,784,467     |
| Total Wastewater Fund Revenues                     | 14,746,648    | 17,539,614    | 17,036,984    | 18,347,910    | 14,365,739    | 14,201,102    | 13,490,155    | 14,798,724    | 16,031,881    | 19,958,894    |
| <b>City Fund (1)*</b>                              |               |               |               |               |               |               |               |               |               |               |
| <b>Operating Revenues:</b>                         |               |               |               |               |               |               |               |               |               |               |
| Customer Charges:                                  |               |               |               |               |               |               |               |               |               |               |
| Industrial                                         |               |               | 203,379       | 414,857       | 441,971       | 439,687       | 456,835       | 531,748       | 558,090       | 549,661       |
| Commercial/Institutional                           |               |               | 1,290,438     | 2,796,800     | 2,964,011     | 2,917,340     | 3,040,810     | 3,281,625     | 3,264,399     | 3,125,615     |
| Residential                                        |               |               | 4,353,635     | 9,850,719     | 9,979,086     | 10,213,236    | 10,571,269    | 11,003,695    | 11,249,045    | 12,631,704    |
| User Charges                                       |               |               | 7,296,874     | 14,217,123    | 10,376,636    | 14,686,290    | 14,984,978    | 15,285,064    | 15,787,091    | 16,295,859    |
| Other                                              |               |               | 933,636       | 3,182,799     | 3,055,596     | 3,278,630     | 3,684,596     | 5,600,408     | 5,605,750     | 5,090,151     |
| Private Fire Service                               |               |               |               | 57,824        | 60,184        | 63,309        | 63,635        | 64,322        | 59,377        | 55,836        |
| Public Fire Service                                |               |               |               |               |               | 720           | 540           | 765           |               |               |
| Total Charges for Service                          |               |               | 14,077,962    | 30,520,662    | 26,878,499    | 31,599,212    | 32,802,663    | 35,747,627    | 36,524,337    | 37,748,826    |
| Other Income                                       |               |               | 89,372        | 67,024        | 85,530        | 74,245        | 93,262        | 396,813       | 551,525       | 234,849       |
| Total Operating Revenues                           |               |               | 14,167,334    | 30,587,686    | 26,964,029    | 31,673,457    | 32,895,925    | 36,144,440    | 37,075,862    | 37,983,675    |
| <b>Nonoperating Revenues:</b>                      |               |               |               |               |               |               |               |               |               |               |
| Tapping & Capital Recovery Fees                    |               |               |               |               |               |               |               |               |               |               |
| Meter Sales                                        |               |               | 12,050        | 58,278        | 236,343       | 764,853       | 725,230       | 1,383,796     | 1,707,128     | 1,901,863     |
| Inspection, Plan Reviews, & Project Reimbursements |               |               | 1,624         | 10,795        | 13,272        | 13,319        | 17,187        | 8,397         | 22,466        | 24,595        |
| Interest Income                                    |               |               | 2,600         | 794,269       | 1,295,847     | 1,396,588     | 1,132,206     | 912,225       | 448,402       | 841,585       |
| Other Income                                       |               |               | 3,497         | 113,361       | 424,171       | 386,754       | 341,431       | 1,047,630     | 1,193,618     | 162,075       |
| Total Nonoperating Revenues                        |               |               | 265,902       | 1,797,371     | 2,512,924     | 3,383,044     | 3,339,881     | 3,417,490     | 3,431,273     | 2,981,738     |
| Total Allentown Fund Revenues                      |               |               | 14,433,236    | 32,385,057    | 29,476,953    | 35,056,501    | 36,235,806    | 39,561,930    | 40,507,135    | 40,965,413    |
| Total Enterprise Funds                             |               |               |               |               |               |               |               |               |               |               |
|                                                    | \$ 22,047,969 | \$ 25,523,804 | \$ 39,872,967 | \$ 59,668,798 | \$ 53,167,335 | \$ 59,019,948 | \$ 59,739,210 | \$ 64,541,761 | \$ 67,664,410 | \$ 72,842,044 |

(1) This data can be compared to Expenses by Function on the following page.

\* The City Fund was new to the Authority in 2013, and as such information prior to 2013 is not applicable.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
OPERATING EXPENSES BY FUNCTION**

|                                              | 2011                 | 2012                 | 2013                 | 2014                 | 2015                 | 2016                 | 2017                 | 2018                 | 2019                 | 2020                 |
|----------------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
|                                              |                      |                      |                      |                      | (3)                  |                      |                      | (4)                  |                      |                      |
| <b><u>Suburban - Water Fund (1)</u></b>      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Salaries and Wages                           | \$ 738,156           | \$ 733,398           | \$ 743,936           | \$ 755,025           | \$ 801,639           | \$ 1,028,004         | \$ 1,042,565         | \$ 1,037,882         | \$ 1,540,532         | \$ 1,697,918         |
| Benefits, General and Administration         | 1,073,477            | 1,056,894            | 1,007,698            | 883,400              | 770,436              | 1,045,634            | 1,257,063            | 1,261,241            | 838,180              | 1,179,359            |
| Utilities                                    | 487,912              | 497,447              | 400,614              | 418,729              | 435,422              | 426,230              | 420,812              | 437,253              | 446,898              | 419,493              |
| Materials and Supplies                       | 314,711              | 284,164              | 314,809              | 266,886              | 292,395              | 288,550              | 422,730              | 294,937              | 399,747              | 279,430              |
| Miscellaneous Services                       | 1,084,945            | 1,173,520            | 1,399,343            | 1,518,486            | 1,760,084            | 2,024,840            | 2,270,359            | 2,703,594            | 2,685,900            | 3,645,096            |
| Depreciation and Amortization (2)            | 2,606,722            | 2,517,142            | 2,494,362            | 2,461,079            | 2,508,051            | 2,587,430            | 2,695,548            | 2,768,133            | 2,602,179            | 2,948,963            |
| <b>Total</b>                                 | <b>\$ 6,305,923</b>  | <b>\$ 6,262,565</b>  | <b>\$ 6,360,762</b>  | <b>\$ 6,303,605</b>  | <b>\$ 6,568,027</b>  | <b>\$ 7,400,688</b>  | <b>\$ 8,109,077</b>  | <b>\$ 8,503,040</b>  | <b>\$ 8,513,436</b>  | <b>\$ 10,170,259</b> |
| <b><u>Suburban - Wastewater Fund (1)</u></b> |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Salaries and Wages                           | \$ 321,524           | \$ 332,227           | \$ 290,338           | \$ 330,595           | \$ 430,271           | \$ 440,614           | \$ 424,208           | \$ 462,145           | \$ 815,017           | \$ 800,670           |
| Benefits, General and Administration         | 453,987              | 474,918              | 370,857              | 412,512              | 474,988              | 564,580              | 559,911              | 580,467              | 518,441              | 568,571              |
| Utilities                                    | 278,440              | 172,706              | 167,038              | 228,184              | 218,286              | 204,648              | 226,197              | 290,201              | 384,574              | 296,419              |
| Materials and Supplies                       | 127,977              | 151,279              | 143,800              | 155,820              | 187,328              | 189,418              | 155,503              | 264,744              | 350,431              | 232,039              |
| Miscellaneous Services                       | 4,735,149            | 5,292,287            | 5,413,037            | 6,217,734            | 6,996,038            | 7,139,673            | 6,369,014            | 5,717,168            | 6,238,240            | 6,257,849            |
| Treatment and Transportation                 | 6,238,733            | 5,539,924            | 7,128,163            | 5,523,415            | 2,347,975            | 3,021,234            | 3,516,548            | 3,543,753            | 3,385,568            | 2,906,958            |
| Depreciation and Amortization                | 4,031,214            | 3,970,083            | 3,997,389            | 4,119,337            | 4,359,509            | 4,501,469            | 4,599,096            | 4,490,397            | 4,571,072            | 5,937,183            |
| <b>Total</b>                                 | <b>\$ 16,187,024</b> | <b>\$ 15,933,424</b> | <b>\$ 17,510,622</b> | <b>\$ 16,987,597</b> | <b>\$ 15,014,395</b> | <b>\$ 16,061,636</b> | <b>\$ 15,850,477</b> | <b>\$ 15,348,875</b> | <b>\$ 16,263,343</b> | <b>\$ 16,999,689</b> |
| <b><u>City Fund (1) *</u></b>                |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Salaries and Wages                           |                      |                      | \$ 2,407,213         | \$ 5,970,232         | \$ 5,743,818         | \$ 5,608,679         | \$ 5,870,195         | \$ 6,233,387         | \$ 7,493,744         | \$ 7,498,713         |
| Benefits, General and Administration         |                      |                      | 787,154              | 3,732,073            | 3,746,923            | 4,417,857            | 5,155,222            | 5,563,262            | 5,811,022            | 4,996,559            |
| Utilities                                    |                      |                      | 609,454              | 1,900,365            | 1,939,560            | 1,863,839            | 1,903,666            | 2,040,103            | 2,058,999            | 1,815,047            |
| Materials and Supplies                       |                      |                      | 634,843              | 1,839,101            | 1,400,206            | 1,333,225            | 1,312,551            | 1,267,835            | 1,362,852            | 1,393,271            |
| Miscellaneous Services                       |                      |                      | 651,738              | 3,147,458            | 2,358,537            | 2,190,803            | 2,620,544            | 2,096,178            | 1,420,016            | 1,958,582            |
| Treatment and Transportation                 |                      |                      | -                    | 5,502                | 11,043               | 11,011               | 10,096               | 9,827                | 9,547                | 11,926               |
| Depreciation and Amortization                |                      |                      | 2,616,422            | 5,293,370            | 5,530,078            | 5,834,285            | 5,887,307            | 5,864,433            | 5,835,507            | 6,117,396            |
| <b>Total</b>                                 | <b>\$ 22,492,947</b> | <b>\$ 22,195,989</b> | <b>\$ 23,871,384</b> | <b>\$ 23,291,202</b> | <b>\$ 42,312,587</b> | <b>\$ 44,722,023</b> | <b>\$ 46,719,135</b> | <b>\$ 46,926,940</b> | <b>\$ 48,768,466</b> | <b>\$ 50,961,442</b> |
| <b>Total Operating Expenses</b>              |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |

\* The City Fund was new to the Authority in 2013, and as such information prior to 2013 is not applicable.

- (1) This data can be compared to Revenues by Source on the previous page.
- (2) Depreciation and Amortization for 2012 was restated per GASB 65.
- (3) The amounts reported reflect the adoption of GASB 68 and 71. Amounts prior to 2015 have not been adjusted to reflect the adoption of GASB 68 and 71.
- (4) The amounts reported reflect the adoption of GASB 75. Amounts prior to 2018 have not been adjusted to reflect the adoption of GASB 75.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
NONOPERATING EXPENSES**

|                                    | 2011                | 2012                | 2013                 | 2014                 | 2015                 | 2016                 | 2017                 | 2018                 | 2019                 | 2020                 |
|------------------------------------|---------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b>Suburban - Water Fund:</b>      |                     |                     |                      |                      |                      |                      |                      |                      |                      |                      |
| Interest Expense                   | \$ 1,489,721        | \$ 1,431,321        | \$ 1,408,407         | \$ 1,377,963         | \$ 1,269,864         | \$ 1,140,565         | \$ 1,371,796         | \$ 1,576,659         | \$ 1,545,028         | \$ 1,442,776         |
| Other Expense                      | 79,714              | 160,293             | 106,373              | 108,430              | 68,291               | 157,016              | 427,991              | 82,142               | 113,255              | 57,563               |
| Loss on Disposal of Capital Assets | -                   | -                   | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    |
| <b>Total</b>                       | <b>\$ 1,569,435</b> | <b>\$ 1,591,614</b> | <b>\$ 1,514,780</b>  | <b>\$ 1,486,393</b>  | <b>\$ 1,338,155</b>  | <b>\$ 1,297,581</b>  | <b>\$ 1,799,787</b>  | <b>\$ 1,658,801</b>  | <b>\$ 1,658,283</b>  | <b>\$ 1,500,339</b>  |
| <b>Suburban - Wastewater Fund:</b> |                     |                     |                      |                      |                      |                      |                      |                      |                      |                      |
| Interest Expense                   | \$ 140,538          | \$ 118,992          | \$ 133,737           | \$ 154,205           | \$ 151,110           | \$ 195,081           | \$ 204,418           | \$ 197,000           | \$ 213,114           | \$ 199,707           |
| Other Expense                      | 550,126             | 491,571             | 561,186              | 63,029               | 80,574               | 65,320               | 30,104               | 30,876               | 43,757               | 42,698               |
| <b>Total</b>                       | <b>\$ 690,664</b>   | <b>\$ 610,563</b>   | <b>\$ 694,923</b>    | <b>\$ 217,234</b>    | <b>\$ 231,684</b>    | <b>\$ 260,401</b>    | <b>\$ 234,522</b>    | <b>\$ 227,876</b>    | <b>\$ 256,871</b>    | <b>\$ 242,405</b>    |
| <b>City Fund: *</b>                |                     |                     |                      |                      |                      |                      |                      |                      |                      |                      |
| Interest Expense                   |                     |                     | \$ 7,101,736         | \$ 17,940,740        | \$ 18,024,646        | \$ 18,280,300        | \$ 18,516,650        | \$ 18,810,413        | \$ 19,386,584        | \$ 17,257,071        |
| Planning and Issuance Expense      |                     |                     | 6,081,223            | -                    | -                    | -                    | -                    | -                    | -                    | -                    |
| Other Expense                      |                     |                     | -                    | 1,543,675            | 2,047,608            | 4,026,159            | 3,312,624            | 3,810,644            | 1,259,785            | 4,206,199            |
| <b>Total</b>                       |                     |                     | <b>\$ 13,182,959</b> | <b>\$ 19,484,415</b> | <b>\$ 20,072,254</b> | <b>\$ 22,306,459</b> | <b>\$ 21,829,274</b> | <b>\$ 22,621,057</b> | <b>\$ 20,646,369</b> | <b>\$ 21,463,270</b> |
| <b>Total Nonoperating Expenses</b> | <b>\$ 2,260,099</b> | <b>\$ 2,202,177</b> | <b>\$ 2,209,703</b>  | <b>\$ 21,188,042</b> | <b>\$ 21,642,093</b> | <b>\$ 23,864,441</b> | <b>\$ 23,863,583</b> | <b>\$ 24,507,734</b> | <b>\$ 22,561,523</b> | <b>\$ 23,206,014</b> |

\* The City Fund was new to the Authority in 2013, and as such information prior to 2013 is not applicable.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
CAPITAL CONTRIBUTIONS BY SOURCE**

|                                       | 2011                | 2012                | 2013              | 2014              | 2015                | 2016                | 2017                | 2018                | 2019                | 2020              |
|---------------------------------------|---------------------|---------------------|-------------------|-------------------|---------------------|---------------------|---------------------|---------------------|---------------------|-------------------|
| <b>Suburban - Water Fund:</b>         |                     |                     |                   |                   |                     |                     |                     |                     |                     |                   |
| Grant                                 | \$ 298,300          | \$ -                | \$ -              | \$ -              | \$ 421,853          | \$ 211,552          | \$ 211,892          | \$ 212,688          | \$ -                | \$ -              |
| Capital Assets Provided by Developers | 547,179             | 599,169             | 719,019           | 826,893           | 1,270,958           | 3,348,066           | 6,112,316           | 1,581,110           | 1,716,419           | 209,793           |
| <b>Total Water Fund</b>               | <b>\$ 845,479</b>   | <b>\$ 599,169</b>   | <b>\$ 719,019</b> | <b>\$ 826,893</b> | <b>\$ 1,692,811</b> | <b>\$ 3,559,618</b> | <b>\$ 6,324,208</b> | <b>\$ 1,793,798</b> | <b>\$ 1,716,419</b> | <b>\$ 209,793</b> |
| <b>Suburban - Wastewater Fund:</b>    |                     |                     |                   |                   |                     |                     |                     |                     |                     |                   |
| Grant                                 | \$ 1,475,191        | \$ 1,040,958        | \$ 145,500        | \$ -              | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                | \$ -              |
| Capital Assets Provided by Developers | 84,069              | 5,100,144           | 9,640             | 17,344            | -                   | 986,079             | 2,055,943           | 34,894              | 15,000              | 7,620             |
| <b>Total Wastewater Fund</b>          | <b>\$ 1,559,260</b> | <b>\$ 6,141,102</b> | <b>\$ 155,140</b> | <b>\$ 17,344</b>  | <b>\$ -</b>         | <b>\$ 986,079</b>   | <b>\$ 2,055,943</b> | <b>\$ 34,894</b>    | <b>\$ 15,000</b>    | <b>\$ 7,620</b>   |
| <b>City Fund:</b>                     |                     |                     |                   |                   |                     |                     |                     |                     |                     |                   |
| Grant                                 |                     |                     | \$ -              | \$ -              | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                | \$ -              |
| Capital Assets Provided by Developers |                     |                     | -                 | -                 | -                   | -                   | -                   | -                   | -                   | -                 |
| <b>Total Allentown Fund</b>           | <b>\$ -</b>         | <b>\$ -</b>         | <b>\$ -</b>       | <b>\$ -</b>       | <b>\$ -</b>         | <b>\$ -</b>         | <b>\$ -</b>         | <b>\$ -</b>         | <b>\$ -</b>         | <b>\$ -</b>       |
| <b>Total Enterprise Funds</b>         | <b>\$ 2,404,739</b> | <b>\$ 6,740,271</b> | <b>\$ 874,159</b> | <b>\$ 844,237</b> | <b>\$ 1,692,811</b> | <b>\$ 4,545,697</b> | <b>\$ 8,380,151</b> | <b>\$ 1,828,692</b> | <b>\$ 1,731,419</b> | <b>\$ 217,413</b> |

\* The City Fund was new to the Authority in 2013, and as such information prior to 2013 is not applicable.

Note: The significant increase in Capital Assets provided by developers in 2012 is related to the Authority taking ownership of the Lynn Township wastewater treatment facility.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
SCHEDULE OF WATER CAPITAL RECOVERY FEES**

|                                                                  | 2011       | 2012       | 2013       | 2014       | 2015       | 2016             | 2017               | 2018               | 2019               | 2020               |
|------------------------------------------------------------------|------------|------------|------------|------------|------------|------------------|--------------------|--------------------|--------------------|--------------------|
| <b>SUBURBAN DIVISION</b>                                         |            |            |            |            |            |                  |                    |                    |                    |                    |
| <b>Charge per Typical Residential Customer:</b>                  |            |            |            |            |            |                  |                    |                    |                    |                    |
| <b>Central Lehigh Division:</b>                                  |            |            |            |            |            |                  |                    |                    |                    |                    |
| Supply Tapping Fee                                               | \$ 435     | \$ 605     | \$ 605     | \$ 605     | \$ 605     | \$ 605           | \$ 605             | \$ 605             | \$ 605             | \$ 605             |
| Distribution Tapping Fee                                         | 1,480      | 1,880      | 1,880      | 1,880      | 1,880      | 1,880            | 1,880              | 1,880              | 1,880              | 1,880              |
| <b>North Whitehall Division:</b>                                 |            |            |            |            |            |                  |                    |                    |                    |                    |
| Supply Tapping Fee                                               | 610        | 575        | 575        | 575        | 575        | 575              | 575                | 575                | 575                | 575                |
| Distribution Tapping Fee                                         | 1,480      | 2,000      | 2,000      | 2,000      | 2,000      | 2,000            | 2,000              | 2,000              | 2,000              | 2,000              |
| <b>Washington Twp Division:</b>                                  |            |            |            |            |            |                  |                    |                    |                    |                    |
| Supply Tapping Fee                                               | 485        | 1,000      | 1,000      | 1,000      | 1,000      | 1,000            | 1,000              | 1,000              | 1,000              | 1,000              |
| Distribution Tapping Fee                                         | 1,480      | 1,550      | 1,550      | 1,550      | 1,550      | 1,550            | 1,550              | 1,550              | 1,550              | 1,550              |
| <b>Heidelberg Heights Division:</b>                              |            |            |            |            |            |                  |                    |                    |                    |                    |
| Supply Tapping Fee                                               | 830        | 708        | 708        | 708        | 708        | 708              | 708                | 708                | 708                | 708                |
| Distribution Tapping Fee                                         | 1,480      | 2,000      | 2,000      | 2,000      | 2,000      | 2,000            | 2,000              | 2,000              | 2,000              | 2,000              |
| <b>Ennaeus Consecutive Division:</b>                             |            |            |            |            |            |                  |                    |                    |                    |                    |
| Supply Tapping Fee                                               | 400        | 400        | 400        | 400        | 400        | 400              | 400                | 400                | 400                | 400                |
| Distribution Tapping Fee                                         | 1,480      | 1,480      | 1,480      | 1,480      | 1,480      | 1,480            | 1,480              | 1,480              | 1,480              | 1,480              |
| <b>Upper Milford Central Division:</b>                           |            |            |            |            |            |                  |                    |                    |                    |                    |
| Supply Tapping Fee                                               | 389        | 235        | 235        | 235        | 235        | 235              | 235                | 235                | 235                | 235                |
| Distribution Tapping Fee                                         | 1,480      | 2,000      | 2,000      | 2,000      | 2,000      | 2,000            | 2,000              | 2,000              | 2,000              | 2,000              |
| <b>Small System Divisions: (2)</b>                               |            |            |            |            |            |                  |                    |                    |                    |                    |
| Supply Tapping Fee                                               | 165        | 109        | 192        | 192        | 192        | 192              | 192                | 192                | 192                | 192                |
| Distribution Tapping Fee                                         | 1,480      | 1,130      | 2,000      | 2,000      | 2,000      | 2,000            | 2,000              | 2,000              | 2,000              | 2,000              |
| <b>Total Fees collected: (Suburban Divisions, All Customers)</b> | \$ 137,646 | \$ 215,758 | \$ 193,635 | \$ 142,032 | \$ 212,130 | \$ 296,802       | \$ 365,395         | \$ 184,915         | \$ 360,815         | \$ 348,206         |
| Supply & Special Tapping Fees                                    | 12,500     | 47,295     | 27,650     | 209,839    | 64,072     | 129,375          | 82,010             | 36,490             | 57,610             | 116,080            |
| Distribution Tapping Fees (1)                                    | -          | -          | -          | -          | -          | -                | -                  | -                  | -                  | -                  |
| Connection Fees                                                  | -          | -          | -          | -          | -          | -                | -                  | -                  | 350                | 362                |
| <b>Total Suburban Division</b>                                   | \$ 150,146 | \$ 263,053 | \$ 221,285 | \$ 351,871 | \$ 276,202 | \$ 426,177       | \$ 447,405         | \$ 221,405         | \$ 418,775         | \$ 464,648         |
| <b>CITY DIVISION*</b>                                            |            |            |            |            |            |                  |                    |                    |                    |                    |
| Supply Tapping Fee                                               |            |            | \$ 810     | \$ 810     | \$ 810     | n/a              | n/a                | n/a                | n/a                | n/a                |
| Supply Tapping Fee - Part 1 (3)                                  |            |            |            |            |            | \$5.21 per gal.  | \$5.38 per gal.    | \$5.59 per gal.    | \$5.88 per gal.    | \$6.12 per gal.    |
| Supply Tapping Fee - Part 2 Capacity Portion (3)                 |            |            |            |            |            | \$0.00016 per ga | \$0.00851 per gal. | \$0.00851 per gal. | \$0.00851 per gal. | \$0.00851 per gal. |
| Supply Tapping Fee - Part 2 Distribution Portion (3)             |            |            |            |            |            | \$0.00328 per ga | \$0.02551 per gal. | \$0.02551 per gal. | \$0.02551 per gal. | \$0.02551 per gal. |
| <b>Total Fees collected: (Allentown Division, All Customers)</b> |            |            |            |            |            |                  |                    |                    |                    |                    |
| Supply & Special Tapping Fees                                    |            |            | \$ 7,290   | \$ 39,649  | \$ 128,605 | \$ 474,914       | \$ 415,990         | \$ 968,123         | \$ 21,462          | \$ 8,169           |
| Capacity Fees                                                    |            |            |            |            |            | \$               | \$                 | \$                 | \$                 | \$                 |
| Distribution Fees                                                |            |            |            |            |            | \$ 128           | \$ 435             | \$ 1,339           | \$ 1,390           | \$ 994             |
| <b>Total Allentown Division</b>                                  |            |            | \$ 7,290   | \$ 39,649  | \$ 128,605 | \$ 475,042       | \$ 416,425         | \$ 969,462         | \$ 1,244,882       | \$ 1,301,236       |

\* The City Fund was new to the Authority in 2013, and as such information prior to 2013 is not applicable.

- (1) Distribution Tapping fees only includes type 1 fees, which are fees charged for connections to mains installed by developers are not included because such fees are reimbursed back to the developer.
- (2) Includes Mill Creek, Pine Lakes of Lynn, Beverly Hills and Clearview Farm Estates Divisions.
- (3) In 2016, City Division tapping fees were calculated per EDU rather than a flat fee. An EDU for water calculations equals 159.5 gallons.

**Note: Water charges per typical residential customer represent rates in effect as of year-end.**

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
SCHEDULE OF WASTEWATER CAPITAL RECOVERY FEES**

|                                                                  | 2011            | 2012            | 2013            | 2014            | 2015            | 2016             | 2017               | 2018               | 2019               | 2020               |
|------------------------------------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|--------------------|--------------------|--------------------|--------------------|
| <b>Interceptors - Charge per 1000 Gallons:</b>                   |                 |                 |                 |                 |                 |                  |                    |                    |                    |                    |
| Western Lehigh Interceptor                                       | \$ 2,100        | \$ 2,400        | \$ 2,470        | \$ 2,650        | \$ 2,800        | \$ 2,800         | \$ 3,560           | \$ 3,870           | \$ 3,910           | \$ 4,100           |
| Little Lehigh Relief Interceptor                                 | 840             | 870             | 910             | 940             | 970             | 970              | 990                | 1,100              | 1,130              | 1,170              |
| Treatment Capacity                                               | 4,710           | 4,980           | 5,350           | 5,460           | 5,670           | 5,670            | 5,840              | 6,110              | 6,140              | 6,320              |
| <b>Total</b>                                                     | <b>\$ 7,650</b> | <b>\$ 8,250</b> | <b>\$ 8,730</b> | <b>\$ 9,050</b> | <b>\$ 9,440</b> | <b>\$ 9,440</b>  | <b>\$ 10,390</b>   | <b>\$ 11,080</b>   | <b>\$ 11,180</b>   | <b>\$ 11,590</b>   |
| <b>Annual Wastewater Capacity Sales - Interceptor System</b>     |                 |                 |                 |                 |                 |                  |                    |                    |                    |                    |
| Gallons per Day                                                  | 49,879          | 304,569         | 165,903         | 42,007          | 271,831         | 101,795          | 75,476             | 78,511             | 231,237            | 294,873            |
| Fees Collected (1)                                               | \$ 380,765      | \$ 2,451,607    | \$ 1,425,532    | \$ 187,988      | \$ 2,355,746    | \$ 1,123,945     | \$ 435,017         | \$ 490,076         | \$ 1,525,203       | \$ 3,370,163       |
|                                                                  |                 | (6)             | (7)             |                 | (8)             |                  |                    | (9)                | (10)               |                    |
| <b>Collection Systems - Charge per EDU (2)</b>                   |                 |                 |                 |                 |                 |                  |                    |                    |                    |                    |
| <b>Upper Milford System:</b>                                     |                 |                 |                 |                 |                 |                  |                    |                    |                    |                    |
| Collection Part                                                  | \$ 1,520.00     | \$ 2,408.75     | \$ 2,432.25     | \$ 2,002.20     | \$ 2,002.20     | \$ 2,002.20      | \$ 2,331.00        | \$ 1,816.55        | \$ 1,994.49        | \$ 1,994.49        |
| Capacity Part                                                    | 2,325.00        | 700.30          | 712.05          | 502.90          | 373.65          | 373.65           | 435.00             | 1,386.50           | 1,307.03           | 1,307.03           |
| <b>Heidelberg Heights System:</b>                                |                 |                 |                 |                 |                 |                  |                    |                    |                    |                    |
| Collection Part                                                  | 362.08          | 359.09          | 395.24          | 600.75          | 359.09          | 359.09           | 626.55             | 842.74             | 889.37             | 889.37             |
| Capacity Part                                                    | 2,291.52        | 2,277.45        | 2,506.40        | 2,506.40        | 2,227.45        | 2,227.45         | 4,754.29           | 5,388.26           | 6,110.32           | 6,110.32           |
| <b>Wynnewood Terrace System:</b>                                 |                 |                 |                 |                 |                 |                  |                    |                    |                    |                    |
| Collection Part                                                  | 2,257.58        | 2,260.58        | 2,311.19        | 2,376.26        | 2,260.58        | 2,260.58         | 2,520.23           | 2,788.31           | 3,287.65           | 3,287.65           |
| Capacity Part                                                    | 1,375.79        | 1,376.11        | 1,407.44        | 1,447.41        | 1,376.11        | 1,376.11         | 1,534.48           | 2,567.32           | 3,251.76           | 3,251.76           |
| <b>Sand Spring System:</b>                                       |                 |                 |                 |                 |                 |                  |                    |                    |                    |                    |
| Collection Part                                                  | 553.28          | 554.30          | 566.35          | 583.22          | 554.30          | 554.30           | 617.88             | 849.83             | 878.38             | 878.38             |
| Capacity Part                                                    | 824.98          | 826.63          | 843.50          | 867.60          | 826.63          | 826.63           | 920.38             | 1,441.01           | 2,358.58           | 2,358.58           |
| <b>Arcadia West System:</b>                                      |                 |                 |                 |                 |                 |                  |                    |                    |                    |                    |
| Collection Part                                                  | 577.50          | 593.25          | 606.38          | 622.84          | 640.50          | 640.50           | 661.50             | 661.50             | 715.82             | 715.82             |
| Capacity Part                                                    | 7,231.88        | 7,586.25        | 9,450.00        | 9,450.00        | 9,817.50        | 9,817.50         | 10,108.10          | 10,108.10          | 10,957.60          | 10,957.60          |
| Reimbursement Part (3)                                           | 23,436.00       | 17,942.00       | 18,839.63       | 19,781.54       | 20,771.63       | 20,771.63        | 21,809.14          | 21,809.14          | N/A                | N/A                |
| <b>Western Weisenberg Treatment Plant:</b>                       |                 |                 |                 |                 |                 |                  |                    |                    |                    |                    |
| Capacity Part (4)                                                | 7,231.88        | 7,586.25        | 9,450.00        | 9,450.00        | 9,817.50        | 9,817.50         | 10,108.10          | 10,108.10          | 10,637.12          | 10,637.12          |
| <b>Annual Wastewater Capacity Sales - Collector Systems</b>      |                 |                 |                 |                 |                 |                  |                    |                    |                    |                    |
| Gallons per Day (5)                                              | 19,231          | 2,015           | 3,273           | 1,561           | 1,561           | 8,251            | 7,359              | 10,481             | 11,150             | 13,805             |
| Fees Collected                                                   | \$ 26,872       | \$ 22,617       | \$ 15,336       | \$ 10,715       | \$ 7,130        | \$ 12,977        | \$ 10,359          | \$ 33,450          | \$ 48,546          | \$ 107,409         |
| <b>CITY DIVISION*</b>                                            |                 |                 |                 |                 |                 |                  |                    |                    |                    |                    |
| Tapping Fee                                                      |                 |                 | \$ 680          | \$ 680          | \$ 680          | n/a              | n/a                | n/a                | n/a                | n/a                |
| Tapping Fee - Part 1 (10)                                        |                 |                 |                 |                 |                 | \$3.91 per gal.  | \$4.10 per gal.    | \$4.26 per gal.    | \$4.48 per gal.    | \$4.66 per gal.    |
| Tapping Fee - Part 2 Capacity Portion (11)                       |                 |                 |                 |                 |                 | \$0.00016 per ga | \$0.01538 per gal. | \$0.01538 per gal. | \$0.01538 per gal. | \$0.01538 per gal. |
| Tapping Fee - Part 2 Collection Portion (11)                     |                 |                 |                 |                 |                 | \$0.00328 per ga | \$0.00052 per gal. | \$0.00052 per gal. | \$0.00052 per gal. | \$0.00052 per gal. |
| <b>Total Fees collected: (Allentown Division, All Customers)</b> |                 |                 |                 |                 |                 |                  |                    |                    |                    |                    |
| Tapping Fees                                                     |                 |                 | \$ 4,760        | \$ 18,629       | \$ 107,739      | \$ 153,591       | \$ 106,694         | \$ 242,228         | \$ 208,161         | \$ 195,643         |
| Capacity Fees                                                    |                 |                 |                 |                 |                 | 68,249           | 152,502            | 148,885            | 254,054            | 404,962            |
| Collection Fees                                                  |                 |                 |                 |                 |                 | 4                | 10                 | 30                 | 31                 | 22                 |
| <b>Total Allentown Division</b>                                  |                 |                 | \$ 4,760        | \$ 18,629       | \$ 107,739      | \$ 221,844       | \$ 259,206         | \$ 391,143         | \$ 462,246         | \$ 600,627         |

\* The City Fund was new to the Authority in 2013, and as such information prior to 2013 is not applicable.

- (1) Total includes Western Lehigh Interceptor, Little Lehigh Relief Interceptor and Treatment Capacity fees plus Vera Cruz project fees recouped through grant in 2012. 2009 includes a \$195,087 settlement with a township for fees unreimbursed in prior years.
- (2) An EDU or Equivalent Dwelling Unit represents a single family residential property or in the case of the Arcadia West Industrial Park System it represents 262.5 gallons per day.
- (3) Represents the amount reimbursable to the developer for connections within the Arcadia West subdivision. This system was acquired in June 2003. The period of time for eligible reimbursement ended and is no longer applicable.
- (4) Represents a new wastewater treatment plant which will replace the Arcadia West Plant.
- (5) In 2011, the Vera Cruz Sewer project capacity sales in gallons are included but no fees were collected due to grant funding.
- (6) Gallons per Day and fees includes Ocean Spray purchase of 200,000 gpd and present value of purchase price, which is being paid over 15 years.
- (7) Gallons per Day and fees includes Ocean Spray purchase of 100,000 gpd and purchase price.
- (8) Gallons per Day and fees includes Sunopta purchase of 117,700 gpd and purchase price.
- (9) Gallons per Day and fees includes KRE Group purchase of 61,831 gpd and purchase price.
- (10) Gallons per Day and fees includes Gallop/RPG JV II LLC purchase of 225,000 gpd and purchase price.
- (11) In 2016, City Division tapping fees were calculated per EDU rather than a flat fee. An EDU for wastewater calculations equals 175.5 gallons.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
SCHEDULE OF WATER RATES AND CHARGES - SUBURBAN DIVISION**

| Effective Date                                        |             |                       | 1/1/18     |    | Common Rates (1) |  | 1/1/19 |         | 1/1/20 |          |
|-------------------------------------------------------|-------------|-----------------------|------------|----|------------------|--|--------|---------|--------|----------|
| Metered Water Usage                                   |             |                       |            |    |                  |  |        |         |        |          |
| Fixed Charges:                                        |             |                       |            |    |                  |  |        |         |        |          |
| Meter Size                                            |             |                       |            |    |                  |  |        |         |        |          |
| Quarterly                                             | 5/8" & 3/4" |                       |            | \$ | 12.78            |  | \$     | 12.78   |        | \$ 13.05 |
|                                                       | 1"          |                       |            |    | 21.93            |  |        | 21.93   |        | 23.13    |
| Monthly                                               | 1-1/2"      |                       |            |    | 16.85            |  |        | 16.85   |        | 17.53    |
|                                                       | 2"          |                       |            |    | 22.95            |  |        | 22.95   |        | 24.26    |
|                                                       | 3"          |                       |            |    | 43.80            |  |        | 43.80   |        | 43.80    |
|                                                       | 4"          |                       |            |    | 64.20            |  |        | 64.20   |        | 64.20    |
|                                                       | 6"          |                       |            |    | 120.30           |  |        | 120.30  |        | 120.30   |
|                                                       | 8"          |                       |            |    | 186.90           |  |        | 186.90  |        | 186.90   |
|                                                       | 10"         |                       |            |    | 263.10           |  |        | 263.10  |        | 263.10   |
| Volume Charge per 1,000 gallons: (2)                  |             |                       |            |    |                  |  |        |         |        |          |
| Quarterly Usage (gals.)                               |             | Monthly Usage (gals.) |            |    |                  |  |        |         |        |          |
| First                                                 | 120,000     | First                 | 40,000     |    | 2.43             |  | 2.61   |         | 2.76   |          |
| Next                                                  | 2,880,000   | Next                  | 960,000    |    | 2.21             |  | 2.36   |         | 2.50   |          |
| Next                                                  | 24,000,000  | Next                  | 8,000,000  |    | 1.87             |  | 2.00   |         | 2.18   |          |
| Next                                                  | 147,000,000 | Next                  | 49,000,000 |    | 1.65             |  | 1.76   |         | 1.88   |          |
| Over                                                  | 174,000,000 | Over                  | 58,000,000 |    | 1.53             |  | 1.62   |         | 1.70   |          |
| Public Fire Protection (3)                            |             |                       |            |    |                  |  |        |         |        |          |
| O&M per Hydrant (Rate per Month)                      |             |                       |            | \$ | 8.24             |  | \$     | 8.83    |        | \$ 9.34  |
| Inch-Squared Foot/Year (4)                            |             |                       |            |    | 0.00132          |  |        | 0.00138 |        | 0.00150  |
| Private Fire Protection (Charge per month) (5)        |             |                       |            |    |                  |  |        |         |        |          |
| Fire Line Size                                        |             |                       |            |    |                  |  |        |         |        |          |
| SF Residential                                        |             |                       |            | \$ | 5.00             |  | \$     | 5.00    |        | \$ 5.00  |
| 2"                                                    |             |                       |            |    | 13.61            |  |        | 13.61   |        | 13.61    |
| 2 1/2"                                                |             |                       |            |    | 21.26            |  |        | 21.26   |        | 21.26    |
| 3"                                                    |             |                       |            |    | 30.62            |  |        | 30.62   |        | 30.62    |
| 4"                                                    |             |                       |            |    | 54.43            |  |        | 54.43   |        | 54.43    |
| 6"                                                    |             |                       |            |    | 122.47           |  |        | 122.47  |        | 122.47   |
| 8"                                                    |             |                       |            |    | 217.72           |  |        | 217.72  |        | 217.72   |
| 10"                                                   |             |                       |            |    | 340.18           |  |        | 340.18  |        | 340.18   |
| 12"                                                   |             |                       |            |    | 489.87           |  |        | 489.87  |        | 489.87   |
| Other Fees                                            |             |                       |            |    |                  |  |        |         |        |          |
| Meter Test Fee (5/8", 3/4" & 1")                      |             |                       |            | \$ | 50.00            |  | \$     | 50.00   |        | \$ 50.00 |
| Meter Inspection Fee                                  |             |                       |            |    | 50.00            |  |        | 50.00   |        | 50.00    |
| Site Visit Charge (Normal Hrs) & Meter Inspection Fee |             |                       |            |    | 50.00            |  |        | 50.00   |        | 50.00    |
| Site Visit Charge (After Hrs)                         |             |                       |            |    | 150.00           |  |        | 150.00  |        | 150.00   |
| Service Order Charge (Normal Hrs) (6)                 |             |                       |            |    | 50.00            |  |        | 50.00   |        | 50.00    |
| Service Order Charge (After Hrs) (6)                  |             |                       |            |    | 150.00           |  |        | 150.00  |        | 150.00   |
| Lien Administration Fee (7)                           |             |                       |            |    | 132.15           |  |        | 132.15  |        | 132.15   |
| Hydrant Security Device Fee (8)                       |             |                       |            |    | 140.00           |  |        | 140.00  |        | 140.00   |

- (1) The Authority implemented common rates on 7/1/98 for the majority of the water service areas. Of 20,960 customers at year-end 2015, only 264 were on separate rate schedules.
- (2) Effective 4/1/13.
- (3) Municipalities are billed for this protection.
- (4) Applied to total Transmission and Distribution pipe length for mains with a diameter of 6 to 16 inches. The latest rate change took effect on 4/1/06.
- (5) SF Residential effective 7/12/10 while all other Private Fire rates effective 7/1/06.
- (6) Effective 1/1/15.
- (7) Effective 12/1/17.
- (8) Fee charged to developers for hydrant locking device effective 1/1/17.

**Note: The Authority has the ability to change rates at any time as authorized by its Board of Directors.**

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
SCHEDULE OF WATER RATES AND CHARGES - CITY DIVISION**

| <b>Effective Date</b>                                 |        | <b>Rates</b>  |               |               |
|-------------------------------------------------------|--------|---------------|---------------|---------------|
|                                                       |        | <b>1/1/18</b> | <b>1/1/19</b> | <b>1/1/20</b> |
| <b>Metered Water Usage</b>                            |        |               |               |               |
| <b>Fixed Charges:</b>                                 |        |               |               |               |
| <u>Meter Size</u>                                     |        |               |               |               |
| Quarterly                                             | 5/8"   | \$ 27.85      | \$ 29.27      | \$ 30.47      |
|                                                       | 3/4"   | 34.15         | 35.89         | 37.36         |
|                                                       | 1"     | 46.73         | 49.12         | 51.13         |
|                                                       | 1-1/2" | 78.59         | 82.59         | 85.98         |
|                                                       | 2"     | 116.72        | 122.67        | 127.70        |
|                                                       | 3"     | 218.51        | 229.66        | 239.07        |
|                                                       | 4"     | 332.92        | 349.90        | 364.25        |
|                                                       | 6"     | 650.92        | 684.12        | 712.17        |
|                                                       | 8"     | 1,032.24      | 1,084.89      | 1,129.37      |
| Monthly                                               | 5/8"   | 19.23         | 20.21         | 21.04         |
|                                                       | 3/4"   | 21.33         | 22.42         | 23.34         |
|                                                       | 1"     | 25.64         | 26.95         | 28.06         |
|                                                       | 1-1/2" | 36.25         | 38.10         | 39.67         |
|                                                       | 2"     | 48.96         | 51.46         | 53.57         |
|                                                       | 3"     | 82.78         | 87.00         | 90.57         |
|                                                       | 4"     | 121.03        | 127.20        | 132.41        |
|                                                       | 6"     | 226.92        | 238.49        | 248.27        |
|                                                       | 8"     | 354.14        | 372.20        | 387.47        |
| <b>Volume Charge per 1,000 gallons:</b>               |        | \$ 3.42003    | \$ 3.59528    | \$ 3.77037    |
| <b>Public Fire Protection</b>                         |        |               |               |               |
| Each Hydrant (Rate per year)                          |        | \$ 341.37     | \$ 358.77     | \$ 373.48     |
| <b>Other Fees</b>                                     |        |               |               |               |
| Meter Test Fee (5/8", 3/4" & 1")                      |        | \$ 50.00      | \$ 50.00      | \$ 50.00      |
| Meter Inspection Fee                                  |        | 50.00         | 50.00         | 50.00         |
| Site Visit Charge (Normal Hrs) & Meter Inspection Fee |        | 50.00         | 50.00         | 50.00         |
| Site Visit Charge (After Hrs)                         |        | 150.00        | 150.00        | 150.00        |
| Service Order Charge (Normal Hrs)                     |        | 50.00         | 50.00         | 50.00         |
| Service Order Charge (After Hrs)                      |        | 150.00        | 150.00        | 150.00        |
| Lien Administration Fee                               |        | 132.15        | 132.15        | 132.15        |



**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
SCHEDULE OF WASTEWATER RATES AND CHARGES - SUBURBAN DIVISION - COLLECTOR SYSTEMS**

|                                                 | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |                                    |
|-------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------------------------------------|
| <b>Upper Milford System</b>                     |        |        |        |        |        |        |        |        |        |        |                                    |
| <b>Fixed Charge</b>                             | \$ -   | \$ -   | \$ -   | \$ -   | \$ -   | \$ -   | \$ -   | \$ -   | \$ -   | \$ -   | Per 1000 gals. per Day             |
| <b>Fixed Charge per Quarter (2)</b>             | 20.00  | 20.00  | 21.00  | 21.00  | 21.00  | 21.00  | 21.00  | 21.00  | 21.00  | 21.00  | Per Qtr per EDU (3)                |
| <b>Fixed Charge per Quarter (2)</b>             | 10.00  | 10.00  | 10.50  | 10.50  | 10.50  | 10.50  | 10.50  | 10.50  | 10.50  | 10.50  | Per Multi-Family Unit              |
| <b>Flow Charge:</b>                             |        |        |        |        |        |        |        |        |        |        |                                    |
| All Flow (2)                                    | 4.30   | 4.41   | 4.53   | 4.53   | 4.53   | 4.53   | 4.53   | 4.53   | 4.53   | 4.53   | Per 1000 gals. of Flow             |
| Up to 220 gpd                                   | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | Per 1000 gals. of Flow             |
| From 220 gpd to daily allocation                | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | Per 1000 gals. of Flow             |
| Greater than daily allocation                   | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |                                    |
| <b>Exceptional Strength Charges (1):</b>        |        |        |        |        |        |        |        |        |        |        |                                    |
| Biological Oxygen Demand (BOD)                  | 0.38   | 0.35   | 0.33   | 0.36   | 0.22   | 0.23   | 0.26   | 0.29   | 0.28   | 0.31   | Per Pound                          |
| Total Suspended Solids (TSS)                    | 0.33   | 0.33   | 0.30   | 0.35   | 0.20   | 0.21   | 0.24   | 0.25   | 0.25   | 0.29   | Per Pound                          |
| Total Kjeldahl Nitrogen (TKN)                   | 0.58   | 0.51   | 0.53   | 0.55   | 0.29   | 0.31   | 0.40   | 0.37   | 0.43   | 0.41   | Per Pound                          |
| <b>Sampling &amp; Testing Charge</b>            | 170.00 | 170.00 | 170.00 | 170.00 | 170.00 | 170.00 | 170.00 | 170.00 | 170.00 | 182.00 | Per Day                            |
| <b>Weisenberg Twp. Collector System</b>         |        |        |        |        |        |        |        |        |        |        |                                    |
| <b>Basic Service Charge</b>                     | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | Per 1000 gals. of Allocation/Day   |
| <b>Fixed Charge per Quarter (2)</b>             | 20.00  | 20.00  | 21.00  | 21.00  | 21.00  | 21.00  | 21.00  | 21.00  | 21.00  | 21.00  | Per Equivalent Dwelling Unit       |
| <b>Fixed Charge per Quarter (2)</b>             | 10.00  | 10.00  | 10.50  | 10.50  | 10.50  | 10.50  | 10.50  | 10.50  | 10.50  | 10.50  | Multi-Family Units                 |
| <b>Flow Charge (2)</b>                          | 3.41   | 4.41   | 4.53   | 4.53   | 4.53   | 4.53   | 4.53   | 4.53   | 4.53   | 4.53   | Per 1000 gals. of Flow             |
| <b>Arcadia West Collector System</b>            |        |        |        |        |        |        |        |        |        |        |                                    |
| <b>Flow Charge</b>                              | 58.00  | 58.00  | 58.00  | 58.00  | 58.00  | 58.00  | 58.00  | 58.00  | 58.00  | 58.00  | Per 1000 gals. of Flow             |
| <b>Fixed Charge</b>                             | 7.55   | 7.55   | 7.55   | 7.55   | 7.55   | 7.55   | 7.55   | 7.55   | 7.55   | 7.55   | Per 1000 gals. of Allocation/Day   |
| <b>Heidelberg Heights Collector System</b>      |        |        |        |        |        |        |        |        |        |        |                                    |
| <b>Monthly Charge</b>                           | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | Per Residential Unit               |
| <b>Fixed Charge per Quarter (2)</b>             | 20.00  | 20.00  | 21.00  | 21.00  | 21.00  | 21.00  | 21.00  | 21.00  | 21.00  | 21.00  | Per Equivalent Dwelling Unit       |
| <b>Fixed Charge per Quarter (2)</b>             | 10.00  | 10.00  | 10.50  | 10.50  | 10.50  | 10.50  | 10.50  | 10.50  | 10.50  | 10.50  | Per Multi-Family Unit              |
| <b>Flow Charge (2)</b>                          | 9.08   | 9.29   | 9.53   | 9.53   | 9.53   | 9.53   | 9.53   | 9.53   | 9.53   | 9.53   | Per 1000 gals. of Flow             |
| <b>Wynnewood Terrace Collector System</b>       |        |        |        |        |        |        |        |        |        |        |                                    |
| <b>Monthly Charge</b>                           | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | Per Residential Unit               |
| <b>Fixed Charge per Quarter (2)</b>             | 20.00  | 20.00  | 21.00  | 21.00  | 21.00  | 21.00  | 21.00  | 21.00  | 21.00  | 21.00  | Per Equivalent Dwelling Unit       |
| <b>Fixed Charge per Quarter (2)</b>             | 10.00  | 10.00  | 10.50  | 10.50  | 10.50  | 10.50  | 10.50  | 10.50  | 10.50  | 10.50  | Per Multi-Family Unit              |
| <b>Flow Charge (2)</b>                          | 9.08   | 9.29   | 9.53   | 9.53   | 9.53   | 9.53   | 9.53   | 9.53   | 9.53   | 9.53   | Per 1000 gals. of Flow             |
| <b>Sand Spring Collector System</b>             |        |        |        |        |        |        |        |        |        |        |                                    |
| <b>Fixed Charge</b>                             | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | Per Customer per Month             |
| <b>Fixed Charge per Quarter (2)</b>             | 20.00  | 20.00  | 21.00  | 21.00  | 21.00  | 21.00  | 21.00  | 21.00  | 21.00  | 21.00  | Per Equivalent Dwelling Unit       |
| <b>Fixed Charge per Quarter (2)</b>             | 10.00  | 10.00  | 10.50  | 10.50  | 10.50  | 10.50  | 10.50  | 10.50  | 10.50  | 10.50  | Per Multi-Family Unit              |
| <b>Flow Charge (2)</b>                          | 7.55   | 9.29   | 9.53   | 9.53   | 9.53   | 9.53   | 9.53   | 9.53   | 9.53   | 9.53   | Per 1000 gals. of Flow             |
| <b>Washington Township Collector System (3)</b> |        |        |        |        |        |        |        |        |        |        |                                    |
| <b>District 1 - Fixed Charge per Quarter</b>    | 165.00 | 165.00 | 124.00 | 124.00 | 124.00 | 124.00 | 124.00 | 124.00 | 124.00 | 124.00 | Per EDU                            |
| <b>District 1 - Flow Chg per 1000 gals.</b>     | 2.25   | 2.25   | 5.00   | 5.00   | 5.00   | 5.00   | 5.00   | 5.00   | 5.00   | 5.00   | All flow in excess of 23,000 gals. |
| <b>District 2 - Fixed Charge per Quarter</b>    | 109.00 | 109.00 | 124.00 | 124.00 | 124.00 | 124.00 | 124.00 | 124.00 | 124.00 | 124.00 | Per EDU                            |
| <b>District 2 - Flow Chg</b>                    | 4.80   | 4.80   | 5.00   | 5.00   | 5.00   | 5.00   | 5.00   | 5.00   | 5.00   | 5.00   | Per 1000 gals. of Flow             |
| <b>Lynn Township Collector System (4)</b>       |        |        |        |        |        |        |        |        |        |        |                                    |
| <b>Fixed Charge per Quarter</b>                 | -      | -      | 158.98 | 158.98 | 158.98 | 158.98 | 158.98 | 158.98 | 158.98 | 158.98 | Per EDU                            |
| <b>Flow Charge</b>                              | -      | -      | 7.20   | 7.20   | 7.20   | 7.20   | 7.20   | 7.20   | 7.20   | 7.20   | Per 1000 gals. of Flow             |
| <b>Lowhill Township Collector System (5)</b>    |        |        |        |        |        |        |        |        |        |        |                                    |
| <b>Fixed Charge per Quarter (2)</b>             | -      | -      | -      | -      | -      | 21.00  | 21.00  | 21.00  | 21.00  | 21.00  | Per Equivalent Dwelling Unit       |
| <b>Fixed Charge per Quarter (2)</b>             | -      | -      | -      | -      | -      | 10.50  | 10.50  | 10.50  | 10.50  | 10.50  | Multi-Family Units                 |
| <b>Flow Charge (2)</b>                          | -      | -      | -      | -      | -      | 4.53   | 4.53   | 4.53   | 4.53   | 4.53   | Per 1000 gals. of Flow             |

- (1) Applicable only to commercial and industrial customers.
- (2) Effective in 2010, the Authority took the first step of a 3 year phase-in of a common rate structure for the following collector systems:  
Upper Milford, Weisenberg, Heidelberg Heights, Wynnewood Terrace and Sand Spring.
- (3) The Authority took over operations and billing responsibilities in April 2009. Washington Township still owns the system. Effective 1/1/13, both districts will pay same fixed and flow charges.  
Flow charges apply to all flow discharged.
- (4) Lynn Township Collector System was acquired 2/28/12. The system serves 424 customers.
- (5) Lowhill Township Collector System was acquired 6/8/16. The system serves 43 customers.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
SCHEDULE OF WASTEWATER RATES AND CHARGES - SUBURBAN DIVISION - INTERCEPTOR SYSTEMS**

|                                                   | 2011      | 2012      | 2013      | 2014      | 2015      | 2016      | 2017      | 2018      | 2019      | 2020      |                        |
|---------------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------------------|
| <u>Little Lehigh Relief Interceptor - Phase 1</u> |           |           |           |           |           |           |           |           |           |           |                        |
| Flow Charge                                       | \$ 0.1600 | \$ 0.1700 | \$ 0.1700 | \$ 0.1500 | \$ 0.1200 | \$ 0.1200 | \$ 0.1500 | \$ 0.2700 | \$ 0.2200 | \$ 0.1900 | Per 1000 gals. of Flow |
| <u>Little Lehigh Relief Interceptor - Phase 2</u> |           |           |           |           |           |           |           |           |           |           |                        |
| Flow Charge                                       | -         | 0.0300    | 0.0300    | 0.0300    | 0.0300    | 0.0300    | 0.0200    | 0.0300    | 0.0300    | 0.0030    | Per 1000 gals. of Flow |
| <u>Western Lehigh Interceptor</u>                 |           |           |           |           |           |           |           |           |           |           |                        |
| Flow Charge (2)                                   | 0.8000    | 1.0300    | 1.0300    | 0.8700    | 0.9700    | 1.2800    | 1.1300    | 0.9800    | 0.8900    | 0.9800    | Per 1000 gals. of Flow |
| <u>Exceptional Strength Charges (1):</u>          |           |           |           |           |           |           |           |           |           |           |                        |
| BOD                                               | 0.3800    | 0.3300    | 0.3300    | 0.3600    | 0.2200    | 0.2300    | 0.2600    | 0.2900    | 0.2800    | 0.3100    | Per Pound              |
| TSS                                               | 0.3300    | 0.3000    | 0.3000    | 0.3500    | 0.2000    | 0.2100    | 0.2400    | 0.2500    | 0.2500    | 0.2900    | Per Pound              |
| TKN                                               | 0.5800    | 0.5300    | 0.5300    | 0.5500    | 0.2900    | 0.3100    | 0.4000    | 0.3700    | 0.4300    | 0.4100    | Per Pound              |
| Allocation                                        | 0.2300    | 0.2500    | 0.2500    | 0.2200    | 0.2100    | 0.2200    | 0.2000    | 0.1800    | 0.2900    | 0.2100    | Per 1000 gals. per Day |

- (1) Applicable only to commercial and industrial customers.
- (2) The municipalities served by this system are billed based on estimated rates during the year. By mid-year of the following year, the City of Allentown issues a final reconciled bill of actual treatment and transportation costs and these costs together with the Authority interceptor system costs are used to develop a final actual bill to the municipalities. Based on a comparison of estimated to actual costs, the municipalities receive either an additional charge or credit. Because of a dispute with the City, the final costs for 2009 are under protest. Accordingly the rates shown for 2009 - 2013 are as budgeted. A settlement was reached with the City in 2014.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
SCHEDULE OF WASTEWATER RATES AND CHARGES - CITY DIVISION**

| Effective Date                          |                   | Rates       |             |             |
|-----------------------------------------|-------------------|-------------|-------------|-------------|
|                                         |                   | 1/1/18      | 1/1/19      | 1/1/20      |
| <b>Metered Water Usage</b>              |                   |             |             |             |
| <b>Fixed Charges:</b>                   |                   |             |             |             |
|                                         | <u>Meter Size</u> |             |             |             |
| Quarterly                               | 5/8"              | \$ 9.66     | \$ 10.16    | \$ 10.57    |
|                                         | 3/4"              | 11.84       | 12.45       | 12.96       |
|                                         | 1"                | 16.19       | 17.01       | 17.71       |
|                                         | 1-1/2"            | 27.06       | 28.44       | 29.61       |
|                                         | 2"                | 40.11       | 42.15       | 43.88       |
|                                         | 3"                | 74.90       | 78.72       | 81.95       |
|                                         | 4"                | 114.29      | 120.12      | 125.04      |
|                                         | 6"                | 223.26      | 234.65      | 244.27      |
|                                         | 8"                | 352.30      | 370.27      | 385.45      |
| Monthly                                 | 5/8"              | 6.69        | 7.03        | 7.31        |
|                                         | 3/4"              | 7.41        | 7.79        | 8.11        |
|                                         | 1"                | 8.86        | 9.31        | 9.69        |
|                                         | 1-1/2"            | 12.48       | 13.12       | 13.66       |
|                                         | 2"                | 16.83       | 17.69       | 18.42       |
|                                         | 3"                | 28.51       | 29.97       | 31.19       |
|                                         | 4"                | 41.56       | 43.68       | 45.47       |
|                                         | 6"                | 77.88       | 81.86       | 85.21       |
|                                         | 8"                | 142.88      | 150.16      | 156.32      |
| <b>Volume Charge per 1,000 gallons:</b> |                   | \$ 2.464250 | \$ 2.590040 | \$ 2.695880 |

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
COMPARATIVE WATER CHARGES  
FOR MUNICIPAL OWNED WATER UTILITIES IN  
LEHIGH VALLEY REGION OF PENNSYLVANIA  
Water bill based on 20,000 gallons consumption per Quarter**

| Utility                                                        | Quarterly<br>Amount |
|----------------------------------------------------------------|---------------------|
| <b><u>Local Suppliers (1)</u></b>                              |                     |
| Slatington Borough                                             | \$ 175.56           |
| Lehighon Water Authority                                       | 168.25              |
| South Whitehall Township Authority                             | 150.00              |
| Easton Suburban Water Authority                                | 136.64              |
| Lower Nazareth Township Authority                              | 136.64              |
| Northampton Borough Municipal Authority - North Whitehall Twp. | 129.60              |
| <b>Lehigh County Authority - WTD Welshtown Road</b>            | <b>126.00</b>       |
| Northampton Borough Municipal Authority                        | 122.80              |
| Borough of Macungie                                            | 122.07              |
| Upper Saucon Township                                          | 122.00              |
| Borough of Alburtis                                            | 117.09              |
| <b>Lehigh County Authority - City Division (3)</b>             | <b>132.94</b>       |
| City of Bethlehem                                              | 110.07              |
| Whitehall Township Authority                                   | 110.00              |
| Catasauqua Borough                                             | 102.60              |
| <b>Lehigh County Authority - Suburban Division (2)</b>         | <b>75.25</b>        |
| Borough of Emmaus                                              | 58.00               |

- (1) Quarterly amounts are based on rates in effect as of 12/31/17 unless noted.
- (2) Includes Central Lehigh (Main System), North Whitehall, Millcreek, Pine Lakes of Lynn, Heidelberg Heights, Washington Twp, Clearview Farms, Beverly Hills and Emmaus Consecutive divisions or 98.7% of total customer base.
- (3) The Authority entered into a lease concession agreement with the City of Allentown on 8/8/13 to provide service to approximately 46,650 customers.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
TEN LARGEST INDUSTRIAL & COMMERCIAL WATER CUSTOMERS  
CURRENT YEAR AND NINE YEARS AGO**

| <b>2020</b>                  |                              |                                                |                                                 |                                   |
|------------------------------|------------------------------|------------------------------------------------|-------------------------------------------------|-----------------------------------|
|                              | <b>Customer<br/>Revenues</b> | <b>% of Total<br/>Charges for<br/>Services</b> | <b>Customer<br/>Water Sales<br/>(1000 Gals)</b> | <b>% of Total<br/>Water Sales</b> |
| Sam Adams Pa Brewery (1)     | \$ 1,351,175                 | 4.2%                                           | 703,823                                         | 10.6%                             |
| Niagara Bottling             | 634,374                      | 2.0%                                           | 316,895                                         | 4.8%                              |
| Nestle Waters                | 446,823                      | 1.4%                                           | 216,889                                         | 3.3%                              |
| Ocean Spray Cranberries      | 431,177                      | 1.3%                                           | 206,655                                         | 3.1%                              |
| Hamilton Tech Partners (2)   | 269,013                      | 0.8%                                           | 120,398                                         | 1.8%                              |
| Coca-Cola                    | 266,937                      | 0.8%                                           | 121,398                                         | 1.8%                              |
| Sunopta                      | 247,571                      | 0.8%                                           | 111,320                                         | 1.7%                              |
| Hospital Central Services    | 192,366                      | 0.6%                                           | 46,251                                          | 0.7%                              |
| Nestle Waters (Perrier)      | 177,373                      | 0.5%                                           | 77,312                                          | 1.2%                              |
| Amcors Pet Packaging         | 147,119                      | 0.5%                                           | 65,667                                          | 1.0%                              |
| Totals                       | \$ 4,163,928                 | 12.9%                                          | 1,986,608                                       | 29.9%                             |
| Balance from Other Customers | 28,123,171                   | 87.1%                                          | 4,660,732                                       | 70.1%                             |
| Grand Total                  | \$ 32,287,099                | 100.0%                                         | 6,647,340                                       | 100.0%                            |

| <b>2011</b>                  |                              |                                                |                                                 |                                   |
|------------------------------|------------------------------|------------------------------------------------|-------------------------------------------------|-----------------------------------|
|                              | <b>Customer<br/>Revenues</b> | <b>% of Total<br/>Charges for<br/>Services</b> | <b>Customer<br/>Water Sales<br/>(1000 Gals)</b> | <b>% of Total<br/>Water Sales</b> |
| Sam Adams Pa Brewery (1)     | \$ 583,614                   | 9.0%                                           | 406,183                                         | 16.5%                             |
| Nestle Waters                | 310,979                      | 4.8%                                           | 205,443                                         | 8.3%                              |
| Niagara Bottling             | 214,516                      | 3.3%                                           | 134,795                                         | 5.5%                              |
| Nestle Waters (Perrier)      | 143,665                      | 2.2%                                           | 85,923                                          | 3.5%                              |
| Coca-Cola                    | 124,838                      | 1.9%                                           | 74,280                                          | 3.0%                              |
| Kraft Foods                  | 113,613                      | 1.8%                                           | 67,697                                          | 2.7%                              |
| Hamilton Tech Partners (2)   | 107,347                      | 1.7%                                           | 60,736                                          | 2.5%                              |
| Air Products & Chemicals     | 71,386                       | 1.1%                                           | 39,042                                          | 1.6%                              |
| Amcors Pet Packaging         | 69,797                       | 1.1%                                           | 36,600                                          | 1.5%                              |
| CH2MHill (3)                 | 33,170                       | 0.5%                                           | 16,738                                          | 0.7%                              |
| Totals                       | \$ 1,772,925                 | 27.4%                                          | 1,127,437                                       | 45.7%                             |
| Balance from Other Customers | 4,687,632                    | 72.6%                                          | 1,340,891                                       | 54.3%                             |
| Grand Total                  | \$ 6,460,557                 | 100.0%                                         | 2,468,328                                       | 100.0%                            |

(1) Site of the former Pabst Brewery. Sam Adams Pa Brewery purchased plant from Diageo on June 2, 2008.

(2) Site of former Agere facility.

(3) CH2MHill is the contract operator of Lehigh County Authority's Wastewater Treatment plant. The Authority acquired the plant from the County of Lehigh in October 2009.

Note: Revenues include usage charges and private fire protection charges.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
WATER BILLING COLLECTIONS  
SUBURBAN AND CITY DIVISIONS**

**Suburban - Water Fund:**

| Year | Water Sales | Water Revenues | % Revenues<br>vs.<br>Sales | Uncollectible<br>Amount |
|------|-------------|----------------|----------------------------|-------------------------|
| 2011 | 5,540,654   | 5,540,654      | 100.00%                    | -                       |
| 2012 | 6,001,363   | 6,001,058      | 99.99%                     | 305                     |
| 2013 | 6,553,093   | 6,553,093      | 100.00%                    | -                       |
| 2014 | 7,049,471   | 7,048,941      | 99.99%                     | 530                     |
| 2015 | 7,421,152   | 7,421,152      | 100.00%                    | -                       |
| 2016 | 7,564,388   | 7,563,474      | 99.99%                     | 914                     |
| 2017 | 7,711,257   | 7,710,881      | 99.99%                     | 376                     |
| 2018 | 8,036,009   | 8,035,228      | 99.98%                     | 781                     |
| 2019 | 8,555,288   | 8,555,288      | 100.00%                    | -                       |
| 2020 | 9,550,692   | 9,550,574      | 100.00%                    | 118                     |

**City\* - Water Fund:**

| Year | Water Sales  | Water Revenues | % Revenues<br>vs.<br>Sales | Uncollectible<br>Amount |
|------|--------------|----------------|----------------------------|-------------------------|
| 2011 |              |                |                            |                         |
| 2012 |              |                |                            |                         |
| 2013 | \$ 6,781,088 | \$ 6,781,088   | 100.00%                    | -                       |
| 2014 | 16,245,175   | 16,243,410     | 99.99%                     | 1,765                   |
| 2015 | 16,440,664   | 16,434,872     | 99.96%                     | 5,792                   |
| 2016 | 16,848,893   | 16,845,133     | 99.98%                     | 3,760                   |
| 2017 | 17,753,510   | 17,745,266     | 99.95%                     | 8,244                   |
| 2018 | 19,260,747   | 19,254,867     | 99.97%                     | 5,880                   |
| 2019 | 20,677,284   | 20,673,531     | 99.98%                     | 3,753                   |
| 2020 | 21,397,131   | 21,389,064     | 99.96%                     | 8,067                   |

\* The City Fund was new to the Authority in 2013, and as such information prior to 2013 is not applicable.

**Note: Water Sales excludes private and public fire protection charges as listed on the Revenues by Source schedule.**

## **DEBT CAPACITY**

This section provides data on outstanding debt of the Authority's Suburban and City water and wastewater systems, ratios of debt to personal income and per capita, information on pledged revenue coverage and overlapping debt of other municipal entities within the Authority's Service Area.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
RATIOS OF OUTSTANDING DEBT BY TYPE  
SUBURBAN DIVISION - WATER SYSTEM**

| Year | Net<br>Revenue<br>Bonds | Net<br>Notes | Net<br>Total<br>O/S Debt | Customers<br>at Year-end | Total Debt<br>per Customer | As a share of          |                    |
|------|-------------------------|--------------|--------------------------|--------------------------|----------------------------|------------------------|--------------------|
|      |                         |              |                          |                          |                            | Personal<br>Income (1) | Personal<br>Income |
| 2011 | \$ 32,440,400           | \$ 3,359,430 | \$ 35,799,830            | 20,165                   | \$ 1,775.34                | 4.34%                  | \$ 40,890          |
| 2012 | 31,319,228              | 4,062,743    | 35,381,971               | 20,350                   | 1,738.67                   | 4.01%                  | 43,364             |
| 2013 | 30,175,872              | 3,832,021    | 34,007,893               | 20,566                   | 1,653.60                   | 3.77%                  | 43,897             |
| 2014 | 28,901,146              | 3,670,418    | 32,571,564               | 20,758                   | 1,569.11                   | 3.47%                  | 45,211             |
| 2015 | 27,872,335              | 3,440,555    | 31,312,890               | 20,960                   | 1,493.94                   | 3.14%                  | 47,537             |
| 2016 | 26,466,155              | 3,206,739    | 29,672,894               | 21,488                   | 1,380.91                   | 2.83%                  | 48,834             |
| 2017 | 40,320,920              | 2,969,629    | 43,290,549               | 21,825                   | 1,983.53                   | 3.87%                  | 51,298             |
| 2018 | 38,853,975              | 2,730,299    | 41,584,274               | 22,737                   | 1,828.93                   | 3.41%                  | 53,614             |
| 2019 | 37,359,583              | 2,486,487    | 39,846,070               | 22,901                   | 1,739.93                   | 3.19%                  | 54,471             |
| 2020 | 35,513,504              | 2,238,108    | 37,751,612               | 23,282                   | 1,621.49                   | Not Available          | Not Available      |

(1) Although the Suburban Division's service area is in the more affluent areas of Western and Northern Lehigh County, the Personal Income level for the whole County was used to determine the share of personal income attributable to the debt load.



**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
RATIOS OF OUTSTANDING DEBT BY TYPE  
SUBURBAN DIVISION - WASTEWATER SYSTEMS**

**Common Rate Collector Systems: (1)**

| Year | Revenue<br>Bonds | Notes   | Total      | Customers<br>at Year-end | Total Debt<br>per Customer | As a share of<br>Personal<br>Income (2) | Personal<br>Income |
|------|------------------|---------|------------|--------------------------|----------------------------|-----------------------------------------|--------------------|
| 2011 | \$ 410,176       | \$ -    | \$ 410,176 | 1,301                    | \$ 315.28                  | 0.77%                                   | \$ 40,890          |
| 2012 | 1,291,538        | -       | 1,291,538  | 1,405                    | 919.24                     | 2.12%                                   | 43,364             |
| 2013 | 1,952,730        | -       | 1,952,730  | 1,574                    | 1,240.62                   | 2.83%                                   | 43,897             |
| 2014 | 1,868,705        | -       | 1,868,705  | 1,585                    | 1,178.99                   | 2.61%                                   | 45,211             |
| 2015 | 1,782,769        | 421,852 | 2,204,621  | 1,605                    | 1,373.60                   | 2.89%                                   | 47,537             |
| 2016 | 1,696,821        | 778,492 | 2,475,313  | 1,608                    | 1,539.37                   | 3.15%                                   | 48,834             |
| 2017 | 1,630,058        | 740,918 | 2,370,976  | 1,689                    | 1,403.78                   | 2.74%                                   | 51,298             |
| 2018 | 1,560,901        | 703,913 | 2,264,814  | 1,718                    | 1,318.29                   | 2.46%                                   | 53,614             |
| 2019 | 1,481,997        | 666,533 | 2,148,530  | 1,784                    | 1,204.33                   | 2.21%                                   | 54,471             |
| 2020 | 1,367,092        | 628,778 | 1,995,870  | 1,825                    | 1,093.63                   | Not Available                           | Not Available      |

**Western Lehigh Interceptor System:**

| Year | Revenue<br>Bonds | Notes        | Total        | Customers<br>at Year-end | Total Debt<br>per Customer | As a share of<br>Personal<br>Income (2) | Personal<br>Income |
|------|------------------|--------------|--------------|--------------------------|----------------------------|-----------------------------------------|--------------------|
| 2011 | \$ 868,900       | \$ 4,870,664 | \$ 5,739,564 | 18,677                   | \$ 307.31                  | 0.75%                                   | \$ 40,890          |
| 2012 | 678,621          | 4,893,925    | 5,572,546    | 19,102                   | 291.73                     | 0.67%                                   | 43,364             |
| 2013 | 499,198          | 4,651,717    | 5,150,915    | 19,380                   | 265.79                     | 0.61%                                   | 43,897             |
| 2014 | 315,745          | 4,406,406    | 4,722,151    | 19,595                   | 240.99                     | 0.53%                                   | 45,211             |
| 2015 | 128,167          | 4,157,973    | 4,286,140    | 19,774                   | 216.76                     | 0.46%                                   | 47,537             |
| 2016 | -                | 3,927,001    | 3,927,001    | 19,801                   | 198.32                     | 0.41%                                   | 48,834             |
| 2017 | -                | 3,692,167    | 3,692,167    | 20,245                   | 182.37                     | 0.36%                                   | 51,298             |
| 2018 | -                | 3,451,275    | 3,451,275    | 20,504                   | 168.32                     | 0.31%                                   | 53,614             |
| 2019 | -                | 3,204,180    | 3,204,180    | 20,711                   | 154.71                     | 0.28%                                   | 54,471             |
| 2020 | -                | 2,950,716    | 2,950,716    | 21,031                   | 140.30                     | Not Available                           | Not Available      |

**Arcadia Sewer System (3):**

| Year | Revenue<br>Bonds | Notes      | Total      | Customers<br>at Year-end | Total Debt<br>per Customer | As a share of<br>Personal<br>Income (3) | Personal<br>Income |
|------|------------------|------------|------------|--------------------------|----------------------------|-----------------------------------------|--------------------|
| 2013 | \$ -             | \$ 738,818 | \$ 738,818 | 10                       | \$ 73,881.80               | N/A                                     | N/A                |
| 2014 | -                | 2,691,700  | 2,691,700  | 11                       | 244,700.00                 | N/A                                     | N/A                |
| 2015 | -                | 2,703,890  | 2,703,890  | 15                       | 180,259.33                 | N/A                                     | N/A                |
| 2016 | -                | 2,568,833  | 2,568,833  | 18                       | 142,712.94                 | N/A                                     | N/A                |
| 2017 | -                | 2,432,419  | 2,432,419  | 19                       | 128,022.05                 | N/A                                     | N/A                |
| 2018 | -                | 2,294,634  | 2,294,634  | 19                       | 120,770.21                 | N/A                                     | N/A                |
| 2019 | -                | 2,158,904  | 2,158,904  | 19                       | 113,626.53                 | N/A                                     | N/A                |
| 2020 | -                | 2,022,962  | 2,022,962  |                          | #DIV/0!                    | N/A                                     | N/A                |

- (1) Includes Common Rate Collector Systems: Upper Milford, Heidelberg Heights, Wynnewood Terrace, Sand Spring and Weisenberg Township - Pointe West.
- (2) Although Lehigh County Authority's service area is in the more affluent areas of Western and Northern Lehigh County, the Personal Income level for the whole County was used to determine the share of personal income attributable to the debt load. Specific municipal income levels for years other than a census year were not available.
- (3) An upgrade to the wastewater treatment facility was necessary in order to maintain compliance with its NPDES permit. The eighteen customers are commercial and governmental entities.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
RATIOS OF OUTSTANDING DEBT BY TYPE  
CITY DIVISION**

| Year | Net Revenue Bonds |               | Capital Appreciation | Net<br>Total<br>O/S Debt | Customers<br>at Year-end | Total Debt<br>per Customer | As a share of<br>Personal<br>Income (1) |                    |
|------|-------------------|---------------|----------------------|--------------------------|--------------------------|----------------------------|-----------------------------------------|--------------------|
|      | Tax Exempt        | Taxable       |                      |                          |                          |                            | Personal<br>Income                      | Personal<br>Income |
| 2013 | \$ 234,666,542    | \$ 18,735,000 | \$ 44,343,347        | \$ 297,744,889           | 46,648                   | \$ 6,382.80                | 14.54%                                  | \$ 43,897          |
| 2014 | 235,141,475       | 18,735,000    | 46,898,566           | 300,775,041              | 46,781                   | 6,429.43                   | 14.22%                                  | 45,211             |
| 2015 | 235,458,097       | 18,735,000    | 49,602,860           | 303,795,957              | 46,748                   | 6,498.59                   | 13.67%                                  | 47,537             |
| 2016 | 235,774,717       | 18,735,000    | 52,465,010           | 306,974,727              | 46,762                   | 6,564.62                   | 13.44%                                  | 48,834             |
| 2017 | 236,091,337       | 18,735,000    | 55,494,318           | 310,320,655              | 46,770                   | 6,635.04                   | 12.93%                                  | 51,298             |
| 2018 | 236,407,957       | 18,735,000    | 58,700,641           | 313,843,598              | 46,337                   | 6,773.07                   | 12.63%                                  | 53,614             |
| 2019 | 236,724,577       | 17,940,000    | 61,643,216           | 316,307,793              | 46,523                   | 6,798.96                   | 12.48%                                  | 54,471             |
| 2020 | 264,183,420       | 17,025,000    | 64,303,120           | 345,511,540              | 46,921                   | 7,363.69                   | Not Available                           | Not Available      |

\* The City Fund was new to the Authority in 2013, and as such information prior to 2013 is not applicable.

(1) The Personal Income level for the whole County was used to determine the share of personal income attributable to the debt load.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
SUMMARY OF DEBT SERVICE**

| Year      | Suburban Division |               |                 |              |                |                |                |                |           |          | City Division Fund |                |           |          | Total Funds |  | Total Debt Service |
|-----------|-------------------|---------------|-----------------|--------------|----------------|----------------|----------------|----------------|-----------|----------|--------------------|----------------|-----------|----------|-------------|--|--------------------|
|           | Water Fund        |               | Wastewater Fund |              | Principal      |                | Interest       |                | Principal |          | Interest           |                | Principal | Interest |             |  |                    |
|           | Principal         | Interest      | Principal       | Interest     | Principal      | Interest       | Principal      | Interest       | Principal | Interest |                    |                |           |          |             |  |                    |
| 2021      | 2,101,685         | 1,397,619     | 549,370         | 184,072      | 2,514,642      | 11,600,445     | 5,165,697      | 13,182,136     |           |          |                    |                |           |          | 18,347,833  |  |                    |
| 2022      | 2,138,654         | 1,351,168     | 562,081         | 169,411      | 2,945,649      | 11,670,362     | 5,646,384      | 13,190,941     |           |          |                    |                |           |          | 18,837,325  |  |                    |
| 2023      | 2,201,607         | 1,299,901     | 575,980         | 153,143      | 3,342,077      | 11,788,844     | 6,119,664      | 13,241,888     |           |          |                    |                |           |          | 19,361,552  |  |                    |
| 2024      | 2,194,031         | 1,204,359     | 590,251         | 136,418      | 3,701,819      | 11,962,998     | 6,486,101      | 13,303,775     |           |          |                    |                |           |          | 19,789,876  |  |                    |
| 2025      | 2,277,350         | 1,158,654     | 604,907         | 119,220      | 4,030,368      | 12,187,329     | 6,912,625      | 13,465,203     |           |          |                    |                |           |          | 20,377,828  |  |                    |
| 2026-2030 | 13,297,003        | 4,491,499     | 3,258,588       | 320,587      | 22,999,950     | 67,041,856     | 39,555,541     | 71,853,942     |           |          |                    |                |           |          | 111,409,483 |  |                    |
| 2031-2035 | 5,100,010         | 1,741,897     | 816,663         | 25,526       | 25,544,037     | 80,750,519     | 31,460,710     | 82,517,942     |           |          |                    |                |           |          | 113,978,652 |  |                    |
| 2036-2040 | 2,985,000         | 1,168,357     | 11,708          | 34           | 37,469,578     | 83,482,728     | 40,466,286     | 84,651,119     |           |          |                    |                |           |          | 125,117,405 |  |                    |
| 2041-2045 | 3,525,000         | 632,136       |                 |              | 62,220,000     | 43,475,975     | 65,745,000     | 44,108,111     |           |          |                    |                |           |          | 109,853,111 |  |                    |
| 2046-2050 | 1,585,000         | 80,662        |                 |              | 58,565,000     | 28,851,309     | 60,150,000     | 28,931,971     |           |          |                    |                |           |          | 89,081,971  |  |                    |
| 2051-2055 |                   |               |                 |              | 65,455,000     | 18,105,701     |                |                |           |          |                    |                |           |          |             |  |                    |
| 2056-2059 |                   |               |                 |              | 61,190,000     | 5,655,024      |                |                |           |          |                    |                |           |          |             |  |                    |
|           | \$ 37,405,340     | \$ 14,526,252 | \$ 6,969,548    | \$ 1,108,411 | \$ 349,978,120 | \$ 386,573,090 | \$ 267,708,008 | \$ 378,447,028 | \$        |          |                    | \$ 646,155,036 |           |          |             |  |                    |

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
DEBT SERVICE COVERAGE - SUBURBAN WATER SYSTEM  
(IN THOUSAND DOLLARS)**

| <b>\$000</b>                            | <b>2011</b>  | <b>2012</b>  | <b>2013</b>  | <b>2014</b>  | <b>2015</b>  | <b>2016</b>  | <b>2017</b>   | <b>2018</b>   | <b>2019</b>   | <b>2020</b>   |
|-----------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|
| <b>REVENUES</b>                         |              |              |              |              |              |              |               |               |               |               |
| Operating Revenues                      |              |              |              |              |              |              |               |               |               |               |
| Customer Charges                        | 6,461        | 6,949        | 7,517        | 8,066        | 8,481        | 8,677        | 8,864         | 9,210         | 9,780         | 10,834        |
| Other Income (1)                        | 40           | 73           | 21           | 42           | 51           | 41           | 99            | 41            | 25            | 33            |
| Transfers From Other Funds (2)          | 128          | 119          | 81           | 110          | 112          | 97           | 91            | 98            | 125           | -             |
| Non-Operating Revenues                  | 673          | 843          | 784          | 717          | 680          | 947          | 959           | 832           | 1,180         | 1,051         |
| <b>Total Revenues</b>                   | <b>7,302</b> | <b>7,984</b> | <b>8,403</b> | <b>8,935</b> | <b>9,324</b> | <b>9,762</b> | <b>10,013</b> | <b>10,181</b> | <b>11,110</b> | <b>11,918</b> |
| <b>EXPENSES</b>                         |              |              |              |              |              |              |               |               |               |               |
| Operating Expenses (3)                  | 3,699        | 3,745        | 3,866        | 3,843        | 4,060        | 4,813        | 5,414         | 5,729         | 5,911         | 7,221         |
| Non-Operating Expenses (4)              | 80           | 160          | 106          | 108          | 68           | 157          | 428           | 82            | 98            | 58            |
| <b>Total Expenses</b>                   | <b>3,779</b> | <b>3,905</b> | <b>3,972</b> | <b>3,951</b> | <b>4,128</b> | <b>4,970</b> | <b>5,842</b>  | <b>5,811</b>  | <b>6,009</b>  | <b>7,279</b>  |
| <b>NET REVENUES</b>                     | <b>3,523</b> | <b>4,079</b> | <b>4,431</b> | <b>4,984</b> | <b>5,196</b> | <b>4,792</b> | <b>4,171</b>  | <b>4,370</b>  | <b>5,101</b>  | <b>4,639</b>  |
| <b>DEBT SERVICE</b>                     |              |              |              |              |              |              |               |               |               |               |
| 2001 Note                               | 133          | -            | -            | -            | -            | -            | -             | -             | -             | -             |
| 2007 Pennworks Note                     | 204          | 204          | 204          | 204          | 204          | 204          | 204           | 204           | 204           | 204           |
| 2001 Bonds                              | 694          | -            | -            | -            | -            | -            | -             | -             | -             | -             |
| 2003 Bonds                              | -            | -            | -            | -            | -            | -            | -             | -             | -             | -             |
| 2008 Bond                               | 356          | 355          | 618          | 614          | 517          | -            | -             | -             | -             | -             |
| 2010 A Bonds                            | 649          | 649          | 649          | 649          | 649          | 649          | 649           | 649           | 649           | 649           |
| 2010 AA Bonds                           | 471          | 1,150        | 1,102        | 1,105        | 461          | -            | -             | -             | -             | -             |
| 2011 Penn Vest Note                     | 1            | 11           | 80           | 90           | 84           | 84           | 85            | 87            | 87            | 87            |
| 2011 Bond                               | 1            | 129          | 129          | 129          | 129          | 129          | 129           | 129           | 129           | 129           |
| 2015 Bond                               | -            | -            | -            | -            | 436          | 1,109        | 1,105         | 1,107         | 1,103         | 1,107         |
| 2015 A Bond                             | -            | -            | -            | -            | -            | 400          | 513           | 508           | 513           | 513           |
| 2017 Bonds                              | -            | -            | -            | -            | -            | -            | 185           | 509           | 509           | 829           |
| <b>Total Debt Service</b>               | <b>2,509</b> | <b>2,498</b> | <b>2,782</b> | <b>2,791</b> | <b>2,480</b> | <b>2,575</b> | <b>2,870</b>  | <b>3,193</b>  | <b>3,194</b>  | <b>3,518</b>  |
| <b>ANNUAL DEBT SERVICE COVERAGE (5)</b> | <b>1.40</b>  | <b>1.63</b>  | <b>1.59</b>  | <b>1.79</b>  | <b>2.10</b>  | <b>1.86</b>  | <b>1.45</b>   | <b>1.37</b>   | <b>1.60</b>   | <b>1.32</b>   |

(1) Includes interest income, miscellaneous income, and federal subsidy on Build America Bonds

(2) Represents share of operating and debt service cost of the Office/Operations Center

(3) Excludes depreciation and amortization

(4) Includes trustee, remarketing, and liquidity fees

(5) Net revenues divided by debt service

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
WATER AND WASTEWATER SERVICE AREAS  
SCHEDULE OF OVERLAPPING DEBT**

| Entity                                  | Gross<br>Outstanding<br>Debt 12/31/20 | 2020 Assessment<br>Valuation of<br>Taxable Property (7) | Ratio of Debt<br>to Assessed<br>Taxable Property |
|-----------------------------------------|---------------------------------------|---------------------------------------------------------|--------------------------------------------------|
| Lehigh County                           | \$ 145,222,284                        | \$ 30,690,379,600                                       | 0.0047                                           |
| Borough of Alburtis                     | -                                     | 153,217,500                                             | -                                                |
| Borough of Emmaus                       | 3,382,000                             | 830,740,500                                             | -                                                |
| Borough of Macungie                     | 568,000                               | 232,033,300                                             | 0.0024                                           |
| Heidelberg Township                     | n/a                                   | 274,948,900                                             | -                                                |
| Lowhill Township                        | n/a                                   | 263,244,000                                             | -                                                |
| Lower Macungie Township                 | 6,413,000                             | 3,622,614,700                                           | 0.0018                                           |
| Lynn Township                           | -                                     | 364,301,200                                             | -                                                |
| North Whitehall Township                | -                                     | 1,509,755,500                                           | -                                                |
| Salisbury Township                      | 5,025,000                             | 1,319,660,000                                           | 0.0038                                           |
| South Whitehall Township                | n/a                                   | 2,399,430,800                                           | -                                                |
| Upper Macungie Township                 | -                                     | 4,276,834,900                                           | -                                                |
| Upper Milford Township                  | -                                     | 794,211,000                                             | -                                                |
| Washington Township                     | -                                     | 483,847,400                                             | -                                                |
| Weisenberg Township                     | n/a                                   | 757,525,500                                             | -                                                |
| East Penn School District (1)           | 30,325,000                            | 5,694,185,100                                           | 0.0053                                           |
| Parkland School District (2)            | n/a                                   | 8,463,749,100                                           | -                                                |
| Northern Lehigh School District (3)     | 21,020,000                            | 658,187,100                                             | 0.0319                                           |
| Northwestern Lehigh School District (4) | 46,185,000                            | 1,656,148,800                                           | 0.0279                                           |
| Salisbury School District (5)           | n/a                                   | 1,320,417,500                                           | -                                                |
| Northampton School District (6)         | 136,038,144                           | 1,196,691,630                                           | 0.1137                                           |

- (1) East Penn School District includes Boroughs of Alburtis, Emmaus, Macungie, Lower Macungie and Upper Milford Townships.
- (2) Parkland School District includes Upper Macungie, South Whitehall and North Whitehall Townships, and portions of the City of Allentown, which are not served by LCA.
- (3) Northern Lehigh School District includes Washington Township as a portion of area served.
- (4) Northwestern Lehigh School District includes Heidelberg, Lowhill, Weisenberg and Lynn Townships.
- (5) Salisbury School District includes Salisbury Township.
- (6) Northampton School District includes Clearview Farm Estates.
- (7) Lehigh County reassessed all properties in 2012. Valuation changed from 50% to 100%.

Source: Lehigh County Assessment Office

## **DEMOGRAPHIC AND ECONOMIC**

This section provides trend information on population, major employees, income levels, housing starts, commercial and industrial facilities and unemployment rates, which can indicate the level of economic activity.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
MAJOR EMPLOYERS  
CURRENT YEAR AND TEN YEARS AGO**

| Employer                                | Type of Business        | 2020      |                |      | 2011      |                |      |
|-----------------------------------------|-------------------------|-----------|----------------|------|-----------|----------------|------|
|                                         |                         | Employees | % to Total (A) | Rank | Employees | % to Total (A) | Rank |
| Lehigh Valley Hospital & Health Network | Health Services         | 17,678    | 5.2%           | 1    | 10,207    | 3.0%           | 1    |
| St. Luke's Hospital & Health Network    | Health Services         | 13,627    | 4.0%           | 2    |           |                |      |
| Giant Food Stores                       | Grocery Store           | 2,362     | 0.7%           | 3    | 2,224     | 0.6%           | 4    |
| Mack Trucks                             | Vehicle Manufacturer    | 2,347     | 0.7%           | 4    | 1,600     | 0.5%           | 12   |
| Allentown School District               | Education               | 2,180     | 0.6%           | 5    |           |                |      |
| Air Products & Chemicals                | Industrial Gases        | 2,218     | 0.6%           | 6    |           |                |      |
| Sodexo / Wood Company                   | Food Service            | 2,168     | 0.6%           | 7    | 3,403     | 1.0%           | 3    |
| County of Lehigh                        | Government              | 1,956     | 0.6%           | 8    | 2,251     | 0.7%           | 6    |
| Amazon.com                              | E-commerce Warehouse    | 2,013     | 0.6%           | 9    |           |                |      |
| Wegmans Food Markets                    | Grocery Store           | 1,766     | 0.5%           | 10   | 1,381     | 0.4%           | 14   |
| Guardian Life                           | Insurance Services      | 1,574     | 0.5%           | 11   |           |                |      |
| Weis Markets                            | Grocery Store           | 1,489     | 0.4%           | 12   | 1,200     | 0.3%           | 21   |
| HCR Manorcare                           | Health Services         | 1,315     | 0.4%           | 13   | 1,350     | 0.4%           | 16   |
| Kidspeace                               | Mental Health           | 1,190     | 0.3%           | 14   | 1,269     | 0.4%           | 18   |
| Lutron Electronics Company              | Electronic Manufacturer | 1,123     | 0.3%           | 15   | 1,100     | 0.3%           | 24   |
| Walmart                                 | Department Store        | 1,000     | 0.3%           | 16   |           |                |      |
| PPL                                     | Electricity             | 929       | 0.3%           | 17   | 2,569     | 0.7%           | 5    |
| Lehigh Carbon Community College         | Higher Education        | 922       | 0.2%           | 18   | 1,085     | 0.3%           | 25   |
| City of Allentown                       | Local Government        | 808       | 0.2%           | 19   |           |                |      |

**(A) Represents the percentage of employees to total employment in Lehigh and Northampton Counties.**

**Note: Number of employees are for all locations in Lehigh and Northampton Counties. The listed employers have at least one location in Lehigh County Authority's service area.**

Source: greaterlehighvalleyrealtors.com

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
ECONOMIC AND SOCIAL INDICATORS**

| Entity                   | Population      |                       | Income \$             |                    |                      | Poverty %        |                   | Education %             |                     |
|--------------------------|-----------------|-----------------------|-----------------------|--------------------|----------------------|------------------|-------------------|-------------------------|---------------------|
|                          | 2020<br>Persons | Density<br>(Sq. Mile) | Household<br>(Median) | Family<br>(Median) | Per Capita<br>Income | Persons<br>Below | Families<br>Below | High School<br>Graduate | College<br>Graduate |
| Pennsylvania             | 13,002,700      | 284                   | \$ 60,671             | \$ 86,104          | \$ 34,386            | 13.4             | 8.5               | 90.2                    | 30.8                |
| Lehigh County            | 374,557         | 1,013                 | 61,356                | 87,862             | 33,650               | 12.4             | 8.7               | 88.6                    | 29.4                |
| Northampton County       | 312,951         | 805                   | 68,677                | 92,541             | 35,568               | 10.2             | 7.2               | 90.6                    | 29.2                |
| Alburtis Borough         | 2,643           | 3,000                 | 82,671                | 86,812             | 32,162               | 5.1              | 5.2               | 93.4                    | 33.4                |
| Allentown City           | 125,845         | 6,727                 | 39,876                | 56,446             | 20,241               | 28.4             | 22.1              | 78.6                    | 15.3                |
| Emmaus Borough           | 11,652          | 3,874                 | 58,764                | 77,186             | 33,667               | 6.8              | 3.5               | 92.0                    | 30.2                |
| Heidelberg Township      | 4,313           | 18                    | 71,056                | 88,182             | 29,381               | 3.0              | 14.0              | 93.3                    | 27.2                |
| Lower Macungie Township  | 32,426          | 1,465                 | 95,571                | 121,768            | 45,360               | 3.1              | 3.7               | 94.4                    | 47.8                |
| Lower Milford Township   | 3,891           | 198                   | 100,413               | 123,163            | 44,884               | 2.3              | 1.3               | 94.8                    | 36.2                |
| Lowhill Township         | 2,276           | 162                   | 104,479               | 129,725            | 48,675               | 2.6              | 1.7               | 94.7                    | 16.3                |
| Lynn Township            | 4,368           | 106                   | 81,908                | 102,323            | 39,102               | 6.1              | 4.0               | 92.7                    | 32.6                |
| Macungie Borough         | 3,148           | 3,233                 | 61,067                | 77,915             | 35,641               | 5.2              | 5.1               | 92.5                    | 32.9                |
| Moore Township           | 9,460           | 248                   | 73,823                | 92,652             | 37,142               | 5.8              | 2.7               | 92.5                    | 20.7                |
| North Whitehall Township | 16,370          | 584                   | 87,711                | 99,754             | 42,885               | 4.4              | 3.0               | 93.0                    | 33.8                |
| Salisbury Township       | 11,828          | 283                   | 76,429                | 99,844             | 43,695               | 9.3              | 4.2               | 92.6                    | 33.4                |
| South Whitehall Township | 20,306          | 1,189                 | 87,048                | 117,082            | 48,444               | 3.2              | 3.1               | 94.4                    | 43.7                |
| Upper Macungie Township  | 26,377          | 978                   | 104,735               | 133,766            | 49,227               | 3.0              | 1.8               | 94.1                    | 48.6                |
| Upper Milford Township   | 7,675           | 427                   | 90,373                | 115,218            | 45,470               | 3.9              | 3.3               | 95.7                    | 37.8                |
| Washington Township      | 7,057           | 281                   | 73,482                | 83,121             | 35,643               | 7.6              | 5.9               | 92.6                    | 23.4                |
| Weisenberg Township      | 5,284           | 197                   | 106,511               | 134,306            | 48,501               | 2.5              | 0.9               | 91.3                    | 31.3                |

**Note: The above-listed Boroughs and Townships are within the Lehigh County Authority service area.**

Source: US Census Bureau  
quickfacts.census.gov  
factfinder.census.gov



**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
MUNICIPAL POPULATION TRENDS**

| Area                     | 2000<br>Census | 2010<br>Census | 2020    | Change  |        |
|--------------------------|----------------|----------------|---------|---------|--------|
|                          |                |                |         | No.     | %      |
| Lehigh County            | 312,090        | 349,497        | 374,557 | 25,060  | 8.0%   |
| Northampton County       | 267,066        | 297,735        | 312,951 | 15,216  | 5.7%   |
| Allentown                | 106,632        | 118,032        | 125,845 | 7,813   | 7.3%   |
| Borough of Alburtis      | 2,117          | 2,361          | 2,643   | 282     | 13.3%  |
| Borough of Emmaus        | 11,313         | 11,211         | 11,652  | 441     | 3.9%   |
| Heidelberg Township      | 3,279          | 3,416          | 4,313   | 897     | 27.4%  |
| Lower Macungie Township  | 19,220         | 30,633         | 32,426  | 1,793   | 9.3%   |
| Lower Milford Township   | 3,617          | 3,775          | 3,891   | 116     | 3.2%   |
| Lowhill Township         | 1,869          | 2,173          | 2,276   | 103     | 5.5%   |
| Lynn Township            | 3,849          | 4,229          | 4,368   | 139     | 3.6%   |
| Borough of Macungie      | 3,039          | 3,074          | 3,148   | 74      | 2.4%   |
| Moore Township           | 8,673          | 9,198          | 9,460   | 262     | 3.0%   |
| North Whitehall Township | 14,731         | 15,703         | 16,370  | 667     | 4.5%   |
| Salisbury Township       | 13,498         | 13,505         | 11,828  | (1,677) | -12.4% |
| South Whitehall Township | 18,028         | 19,180         | 20,306  | 1,126   | 6.2%   |
| Upper Macungie Township  | 13,895         | 20,063         | 26,377  | 6,314   | 45.4%  |
| Upper Milford Township   | 6,889          | 7,292          | 7,675   | 383     | 5.6%   |
| Washington Township      | 6,588          | 6,624          | 7,057   | 433     | 6.6%   |
| Weisenberg Township      | 4,144          | 4,923          | 5,284   | 361     | 8.7%   |

**Note: Lehigh County Authority provides water and wastewater service to portions of the listed areas.**

Source: U.S. Census Quickfacts  
data.census.gov(formally factfinder.census.gov)

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
COMPARATIVE POPULATION STATISTICS 1950 - 2020**

| Year | Lehigh<br>County | Change (1) | (2)<br>ABE - MSA | Change | Pennsylvania | Change (1) | United<br>States | Change |
|------|------------------|------------|------------------|--------|--------------|------------|------------------|--------|
| 1950 | 198,207          |            | 437,824          |        | 10,498,012   |            | 151,325,798      |        |
| 1960 | 227,536          | 14.8%      | 492,168          | 12.4%  | 11,319,366   | 7.8%       | 179,323,000      | 18.5%  |
| 1970 | 255,702          | 12.4%      | 521,447          | 5.9%   | 11,811,561   | 4.3%       | 203,215,000      | 13.3%  |
| 1980 | 272,778          | 6.7%       | 551,800          | 5.8%   | 11,868,305   | 0.5%       | 226,502,000      | 11.5%  |
| 1990 | 291,946          | 7.0%       | 596,817          | 8.2%   | 11,903,299   | 0.3%       | 248,709,873      | 9.8%   |
| 2000 | 312,090          | 6.9%       | 638,867          | 7.0%   | 12,286,107   | 3.2%       | 273,643,273      | 10.0%  |
| 2010 | 349,497          | 12.0%      | 821,623          | 28.6%  | 12,702,379   | 3.4%       | 308,745,538      | 12.8%  |
| 2013 | 355,768          | 1.8%       | 829,300          | 0.9%   | 12,781,296   | 0.6%       | 316,128,839      | 2.4%   |
| 2014 | 357,823          | 0.6%       | 829,835          | 0.1%   | 12,787,209   | 0.0%       | 318,857,056      | 0.9%   |
| 2015 | 360,685          | 0.8%       | 832,327          | 0.3%   | 12,802,503   | 0.1%       | 321,418,820      | 0.8%   |
| 2016 | 356,756          | -1.1%      | 835,652          | 0.4%   | 12,779,559   | -0.2%      | 316,515,021      | -1.5%  |
| 2017 | 366,494          | 2.7%       | 840,550          | 0.6%   | 12,805,537   | 0.2%       | 325,719,178      | 2.9%   |
| 2018 | 368,100          | 0.4%       | 842,913          | 0.3%   | 12,807,060   | 0.01%      | 327,167,434      | 0.4%   |
| 2019 | 369,318          | 0%         | 844,052          | 0.14%  | 12,801,989   | -0.04%     | 328,239,523      | 0.33%  |
| 2020 | 374,557          | 1.4%       | 846,399          | 0%     | 13,002,700   | 1.6%       | 331,449,281      | 1.0%   |

(1) Change from prior decade.

(2) Allentown-Bethlehem-Easton Metropolitan Service Area

Source: U.S. Department of Commerce, Bureau of Economic Analysis  
HUD PD&R Housing Market Profiles  
City Population

American Fact Finder-data.census.gov

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
2020 New Industrial / Commercial / Institutional Customers - Suburban Division**

| Name                                                         | Classification                       | Approximate<br>Size in Sq. Ft. | (1)<br>Est. Water Usage<br>in gallons per day |
|--------------------------------------------------------------|--------------------------------------|--------------------------------|-----------------------------------------------|
| <b><u>Customer Additions in 2020:</u></b>                    |                                      |                                |                                               |
| 8783 Congdon Hill Drive                                      | Warehouse                            | 1,088,000                      | 1,400                                         |
| 8615 Congdon Hill Drive                                      | Warehouse                            | 271,080                        | 5,000                                         |
| 7356 Industrial Blvd (Keurig Dr. Pepper)                     | Production Facility                  | 811,200                        | 1,000,000                                     |
| 6126 Hamilton Blvd (APCI Federal Credit Union)               | Credit Union                         | 70,000                         | 2,665                                         |
| 6084 Hamilton Blds (First Commonwealth Federal Credit Union) | Credit Union                         | 5,642                          | 200                                           |
| 5767 Cetronia Road (Above and Beyond)                        | Personal Care Facility               | 55,000                         | 6,500                                         |
| 5374 Hamilton Blvd                                           | Restaurant                           | 2,753                          | 1,275                                         |
| 5354 Hamilton Blvd                                           | Medical Office                       | 2,800                          | 25                                            |
| 5265 Rockrose Lane                                           | Irrigation Meter                     | N/A                            | N/A                                           |
| 4725 Hamilton Blvd (Ciocca)                                  | Auto Dealership                      | 4,976                          | 1,450                                         |
| 4260 Sand Spring Road                                        | School                               | 53,907                         | 2,000                                         |
| 4250 Independence Drive                                      | Office                               | 15,000                         | 1,392                                         |
| 4050 Schneck Road                                            | PUC Wastewater Facility              | 140                            | 10                                            |
| 3450 Brookside Road                                          | Community Center                     | 53405                          | 480                                           |
| 2500 PA Route 100 T2 (Davita)                                | Medical Office (Dialysis Center)     | 6590                           | 6168                                          |
| 2500 PA Route 100 T1 (St. Luke's)                            | Medical Office                       | 31927                          | 3500                                          |
| 250 Twin Ponds Road                                          | School                               | 88,490                         | 1875                                          |
| 2298 Golden Key Road                                         | Fueling Station/Convenience Store    | 6800                           | 2500                                          |
| <b><u>Plans Approved or under Review:</u></b>                |                                      |                                |                                               |
| 749 PA RT 100                                                | Warehouse                            | 160,000                        | 1,200                                         |
| 3200 Orchard Road (7284 Alburtis Rd)                         | Warehouse/Logistics Facility         | N/A                            | 485                                           |
| 3262 Schoeneck Road                                          | Warehouse                            | 200,000                        | 5,250                                         |
| 6161 Hamilton Boulevard - JaiIndl Commercial Park North      | Office/Retail/Restaurant             | 73,000                         | 4,600                                         |
| 5329-5347-5357 Hamilton Blvd                                 | Retail Stores/Fast Food              | N/A                            | 1,300                                         |
| 5420 Crackersport Road                                       | Commercial/Office Space              | 21,100                         | 2,156                                         |
| 6950 Ambassador Drive - Millipore Sigma                      | Warehouse                            | 350,324                        | 720                                           |
| 7368-7386 Alburtis Road                                      | Mosque                               | 147,650                        | 1,181                                         |
| 8323 & 8449 Congdon Hill Road                                | Warehouse                            | 917,760                        | 5,000                                         |
| ABE Doors & Windows Redevelopment (6776 Hamilton Blvd)       | Car Wash & Retail Stores/Restaurant  | 15,252                         | 10,107                                        |
| Air Products & Chemicals                                     | Commercial/Office Space/R&D          | 649,000                        | 100,000                                       |
| ATAS International                                           | Industrial - Manufacturing           | 474,800                        | 1,980                                         |
| Beit Simcha                                                  | Messianic Fellowship                 | 14,200                         | N/A                                           |
| Grandview Crossings (Weis)                                   | Shopping Center                      | 75,000                         | 2,600                                         |
| Lehigh Valley South, Lots 1 & 2                              | Office Buildings                     | 131,060                        | 7,000                                         |
| Lehigh Valley West IP, Lots 5-11                             | Warehouse                            | 384,500                        | 4,540                                         |
| Macungie Crossings (Hamilton & Grange Road)                  | Retail Stores                        | 146,470                        | N/A                                           |
| Mill Creek Hotel                                             | Hotel/Restaurant                     | 142,655                        | 17,000                                        |
| North Valley Trade Center                                    | Warehouses                           | 1,270,000                      | 7,500                                         |
| Sheetz - Cetronia Road                                       | Gas Station/Convenience Store        | 6,070                          | 2,500                                         |
| Sheetz - Golden Key Travel Plaza                             | Fueling Station/Convenience Store    | 6,800                          | 2,500                                         |
| Shepherd's Corner                                            | Retail Stores                        | 16,460                         | N/A                                           |
| Shoppes at Trexler Plaza                                     | Gas Station/Car Wash/Retail          | 2,311                          | 3,268                                         |
| Towneplace Suites by Marriott                                | Hotel                                | 64,000                         | 8,190                                         |
| Trexler Senior Living Center                                 | Senior Living Center / Retail Stores | 132,000                        | 2,665                                         |
| U-Haul of Lower Macungie                                     | Rental                               | 87,044                         | 111                                           |
| West Hills Business Center - Lot H                           | Warehouse                            | 105,000                        | N/A                                           |

N/A = Not Available

(1) Water Usage can be based on a developer estimate, LCA estimate based on submitted plans, township information, application for water service, wastewater allocation purchase, or Department of Environmental Protection sewage planning modules.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
2020 New Industrial / Commercial / Institutional Customers - City Division**

| Name                                               | Classification                 | Approximate<br>Size in Sq. Ft. | (1)<br>Est. Water Usage<br>in gallons per day |
|----------------------------------------------------|--------------------------------|--------------------------------|-----------------------------------------------|
| <b><u>Customer Additions in 2020:</u></b>          |                                |                                |                                               |
| 120 W Union St                                     | Garage/Office/Storage          | 4,340                          | 670                                           |
| 514 N 12th                                         | Industrial                     | 3,000                          | 319                                           |
| 615 Waterfront Dr                                  | Mixed use - unknown            | 159,000                        | 4,307                                         |
| 716 N 7th St                                       | Deli/Grocery Store             | 1,685                          | 398                                           |
| 1041-1014 E Cedar Classroom Expansion              | School                         | 4,000                          | 400                                           |
| 1110 N Sherman Expansion                           | Storage                        | 4,000                          | 526                                           |
| 1134 N Quebec St                                   | Storage                        | 3,000                          | 159                                           |
| 1417 Hanover                                       | Medical Office                 | 12,000                         | 700                                           |
| 1633 Airport Rd                                    | Autobody Shop                  | 15,810                         | 215                                           |
| 2201 W Turner St                                   | College Classroom              | 4,000                          | 245                                           |
| <b><u>Plans Approved or under Review 2020:</u></b> |                                |                                |                                               |
| 183 Sumner Ave                                     | Office/Storage                 | 3,000                          | 159                                           |
| 309 E Hamilton - Luvs and Hugs                     | Daycare/Mixed Use              | N/A                            | 6,061                                         |
| 401 N Front St - Nueweiler Brewery Site            | Restaurant/Retail              | N/A                            | 2,759                                         |
| 630 Waterfront Dr                                  | Office                         | 150,000                        | 4,123                                         |
| 715 Waterfront Dr                                  | Office                         | 120,572                        | 3,846                                         |
| 730 Waterfront Dr                                  | Garage/Warehouse               | 10,474                         | 501                                           |
| 745 Waterfront Dr                                  | Office                         | 106,403                        | 3,394                                         |
| 815 Waterfront Dr                                  | Office                         | 257,170                        | 8,203                                         |
| 830 Waterfront Dr                                  | Office                         | 85,103                         | 2,714                                         |
| 902 Union Blvd - Wooshoo Burger                    | Restaurant                     | 1,227                          | 1,276                                         |
| 1037 Jasper St - Pole Building                     | Storage                        | 5,720                          | 179                                           |
| 1115 American Parkway                              | Industrial                     | 205,800                        | 3,988                                         |
| 1215 S 4th St - Wawa                               | Gas Station/Retail             | 5,700                          | 957                                           |
| 1501 S 12th St - LANTA Paratransit facility        | Office/Storage                 | 64,156                         | 2,137                                         |
| 1736 Hamilton St - St. Luke's Emergency Department | Hospital                       | N/A                            | 1,228                                         |
| 1811 Glenwood St                                   | Industrial                     | 148,104                        | 4,725                                         |
| 2843 Mitchell Ave - Filmtech                       | Warehouse                      | 70,000                         | 1,595                                         |
| Valania Park                                       | Public Park - Bathroom/Storage | 2,073                          | 1,595                                         |
| Wawa                                               | Convenience Store/Gas Station  | 6,700                          | 1,700                                         |

N/A = Not Available

(1) Water Usage can be based on a developer estimate, LCA estimate based on submitted plans, city information, application for water service, wastewater allocation purchase, or Department of Environmental Protection sewage planning modules.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
2020 MAJOR INDUSTRIAL AND COMMERCIAL COMPLEXES  
WITHIN THE LCA SUBURBAN AND CITY SERVICE AREAS**

| <b>Name</b>                             | <b>Total<br/>Acreage</b> | <b>Status</b>           |
|-----------------------------------------|--------------------------|-------------------------|
| Air Products & Chemicals                | 52                       | Infrastructure Complete |
| Alburtis Crossing                       | 89                       | Infrastructure Complete |
| Arcadia West Industrial Park            | 210                      | Infrastructure Complete |
| Boulder Business Center                 | 256                      | Infrastructure Complete |
| Diocesan Pastoral Center                | 62                       | Design/Review           |
| Grandview Crossings                     | 53                       | Infrastructure Complete |
| Greentree Industrial Park               | 80                       | Infrastructure Complete |
| Hamilton Crossings                      | 55                       | Infrastructure Complete |
| Indian Creek Industrial Park            | 26                       | Design/Review           |
| Iron Run Industrial Park                | 533                      | Infrastructure Complete |
| JDN Retail Development                  | 39                       | Infrastructure Complete |
| Lehigh 100 Corporate Center             | 87                       | Infrastructure Complete |
| Lehigh Valley South Industrial Park     | 116                      | Infrastructure Complete |
| Lehigh Valley West                      | 337                      | Infrastructure Complete |
| Lehigh Valley West II                   | 517                      | Infrastructure Complete |
| Liberty at Mill Creek                   | 289                      | Infrastructure Complete |
| Macungie Crossing                       | 27                       | Infrastructure Complete |
| Meadows Business Center                 | 59                       | Infrastructure Complete |
| Mill Run Corporate Center               | 157                      | Infrastructure Complete |
| North Whitehall Commercial Center       | 41                       | Design/Review           |
| North Whitehall Industrial Park         | 77                       | Infrastructure Complete |
| Spring Creek Properties Settlement Subd | 620                      | Infrastructure Complete |
| Springside Industrial Acres             | 28                       | Infrastructure Complete |
| Tek Park                                | 137                      | Infrastructure Complete |
| The Crossings                           | 201                      | Infrastructure Complete |
| The Waterfront, Phase 1                 | 26                       | Infrastructure Complete |
| The Waterfront, Phase 2                 | 26                       | Design/Review           |
| Trexler Business Center                 | 17                       | Infrastructure Complete |
| West Hills Business Center, Lot H       | 14                       | Design/Review           |
| West Hills Business Center, Lots A-F    | 313                      | Infrastructure Complete |
| West Park Business Center               | 35                       | Infrastructure Complete |
| West Park II                            | 92                       | Infrastructure Complete |
| Western Lehigh Valley Corp.             | 18                       | Infrastructure Complete |
| William Penn Business Center            | 135                      | Infrastructure Complete |

Source: Plans submitted to Lehigh County Authority.

**LEHIGH COUNTY AUTHORITY  
ALLEN TOWN, PENNSYLVANIA  
WATER & WASTEWATER SERVICE AREAS  
HOUSING GROWTH TRENDS**

| Municipality    | Single Family    |            |           |            |            |            |            |            |              |            | Mobile Homes |            |           |            |            |            |            |            |              |            |
|-----------------|------------------|------------|-----------|------------|------------|------------|------------|------------|--------------|------------|--------------|------------|-----------|------------|------------|------------|------------|------------|--------------|------------|
|                 | 2011             | 2012       | 2013      | 2014       | 2015       | 2016       | 2017       | 2018       | 2019         | 2020       | 2011         | 2012       | 2013      | 2014       | 2015       | 2016       | 2017       | 2018       | 2019         | 2020       |
| Abertis         | -                | -          | 27        | 37         | 20         | 23         | 1          | 1          | 1            | 1          | -            | -          | -         | -          | -          | -          | -          | -          | -            | -          |
| Allentown City  | -                | -          | 1         | 8          | 2          | 12         | 12         | 12         | 18           | 14         | -            | -          | -         | -          | -          | -          | -          | -          | -            | -          |
| Emmaus          | 1                | -          | -         | 2          | 3          | 3          | 5          | 2          | 13           | 1          | -            | -          | -         | 1          | -          | -          | -          | -          | -            | -          |
| Heidelberg      | -                | -          | 3         | 31         | 5          | 2          | 4          | 8          | 11           | 5          | -            | -          | -         | 1          | -          | -          | 2          | 1          | -            | -          |
| Lower Macungie  | 1                | -          | -         | 31         | 17         | 9          | 26         | 22         | 19           | 20         | 29           | -          | -         | 6          | 5          | 2          | 2          | 8          | 3            | 3          |
| Lowhill         | 1                | 3          | 3         | 8          | 4          | 4          | 15         | 9          | 4            | 4          | -            | -          | -         | -          | -          | -          | -          | -          | -            | -          |
| Lynn            | -                | -          | 4         | 13         | 6          | 6          | 9          | 6          | 12           | 4          | -            | -          | -         | 1          | -          | -          | -          | 1          | -            | -          |
| Macungie        | -                | -          | -         | 4          | 2          | 5          | 3          | 2          | 1            | -          | -            | -          | -         | -          | -          | -          | -          | -          | -            | -          |
| North Whitehall | 2                | -          | 1         | 13         | 27         | 29         | 11         | 13         | 3            | 24         | -            | -          | -         | 2          | 1          | 4          | 9          | -          | -            | 16         |
| Salisbury       | -                | 1          | -         | 5          | 3          | 10         | 2          | 6          | 4            | 5          | -            | -          | -         | -          | -          | -          | -          | -          | -            | -          |
| South Whitehall | 7                | -          | 2         | 17         | 20         | 10         | 23         | 48         | 93           | 32         | -            | -          | -         | -          | 6          | -          | -          | -          | -            | -          |
| Upper Macungie  | 236              | -          | -         | 160        | 123        | 149        | 163        | 132        | 108          | 56         | -            | -          | -         | 4          | -          | 6          | 7          | 6          | 5            | 24         |
| Upper Milford   | 1                | 13         | -         | 14         | 7          | 11         | 73         | 45         | 73           | 7          | -            | -          | -         | -          | 1          | -          | -          | -          | -            | -          |
| Washington      | -                | 1          | -         | 2          | 3          | 4          | 2          | 7          | 8            | 9          | -            | -          | -         | 3          | -          | 2          | -          | -          | 4            | 5          |
| Weisenberg      | 1                | 3          | 7         | 11         | 13         | 9          | 17         | 11         | 4            | 3          | -            | -          | -         | 2          | -          | -          | 1          | -          | -            | -          |
| <b>Total</b>    | <b>250</b>       | <b>21</b>  | <b>48</b> | <b>326</b> | <b>255</b> | <b>286</b> | <b>366</b> | <b>324</b> | <b>372</b>   | <b>181</b> | <b>29</b>    | <b>-</b>   | <b>-</b>  | <b>20</b>  | <b>13</b>  | <b>14</b>  | <b>21</b>  | <b>16</b>  | <b>12</b>    | <b>48</b>  |
| Municipality    | Multi-Family (1) |            |           |            |            |            |            |            |              |            | Total        |            |           |            |            |            |            |            |              |            |
|                 | 2011             | 2012       | 2013      | 2014       | 2015       | 2016       | 2017       | 2018       | 2019         | 2020       | 2011         | 2012       | 2013      | 2014       | 2015       | 2016       | 2017       | 2018       | 2019         | 2020       |
| Abertis         | -                | -          | 56        | -          | -          | -          | -          | -          | -            | -          | -            | 83         | 37        | 37         | 20         | 23         | 1          | 1          | 1            | 1          |
| Allentown City  | -                | -          | -         | 20         | 170        | -          | 128        | -          | -            | 169        | -            | 1          | 28        | 28         | 172        | 12         | 140        | 12         | 18           | 183        |
| Emmaus          | -                | -          | -         | -          | -          | -          | -          | -          | -            | -          | 1            | -          | -         | 3          | 3          | 3          | 5          | 2          | 13           | 1          |
| Heidelberg      | -                | -          | -         | -          | -          | -          | -          | -          | -            | -          | -            | -          | 3         | 2          | 5          | 2          | 6          | 9          | 11           | 5          |
| Lower Macungie  | -                | -          | -         | -          | -          | -          | 110        | 138        | -            | -          | 30           | -          | -         | 37         | 22         | 11         | 138        | 168        | 22           | 23         |
| Lowhill         | -                | -          | -         | -          | -          | -          | -          | -          | -            | -          | 1            | 3          | 3         | 8          | 4          | 4          | 15         | 9          | 4            | 0          |
| Lynn            | -                | -          | -         | -          | -          | -          | -          | -          | -            | -          | -            | -          | 4         | 14         | 6          | 6          | 9          | 7          | 12           | 4          |
| Macungie        | -                | 1          | -         | -          | -          | -          | -          | -          | -            | -          | -            | 1          | -         | 4          | 2          | 5          | 3          | 2          | 1            | 0          |
| North Whitehall | -                | -          | -         | -          | -          | -          | -          | -          | -            | -          | 2            | -          | 1         | 15         | 28         | 33         | 20         | 13         | 3            | 40         |
| Salisbury       | -                | 10         | -         | -          | 40         | -          | -          | -          | -            | -          | -            | 11         | -         | 5          | 43         | 10         | 2          | 6          | 4            | 5          |
| South Whitehall | -                | -          | 14        | -          | 5          | -          | -          | 450        | 1350         | 72         | 7            | -          | 16        | 17         | 31         | 10         | 23         | 498        | 1443         | 104        |
| Upper Macungie  | 376              | 196        | -         | -          | 3          | 240        | 168        | -          | -            | 44         | 612          | 196        | -         | 164        | 126        | 395        | 338        | 138        | 113          | 124        |
| Upper Milford   | -                | -          | -         | -          | -          | -          | -          | -          | -            | -          | 1            | 13         | -         | 14         | 8          | 11         | 73         | 45         | 73           | 7          |
| Washington      | -                | 18         | -         | -          | -          | -          | -          | -          | -            | -          | -            | 19         | -         | 5          | 3          | 6          | 2          | 7          | 12           | 14         |
| Weisenberg      | -                | -          | -         | -          | -          | -          | -          | -          | -            | -          | 1            | 3          | 7         | 13         | 13         | 9          | 18         | 11         | 4            | 3          |
| <b>Total</b>    | <b>376</b>       | <b>225</b> | <b>70</b> | <b>20</b>  | <b>218</b> | <b>240</b> | <b>406</b> | <b>588</b> | <b>1,350</b> | <b>285</b> | <b>655</b>   | <b>330</b> | <b>99</b> | <b>366</b> | <b>486</b> | <b>540</b> | <b>793</b> | <b>928</b> | <b>1,734</b> | <b>514</b> |

(1) Includes Condominiums and Apartments.  
Note: The schedule represents approved lots.  
Source: Lehigh County Assessment Office

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
AVERAGE ANNUAL UNEMPLOYMENT RATES**

| <u>Year</u> | <u>Lehigh<br/>County</u> | <u>Pennsylvania</u> | <u>United<br/>States</u> |
|-------------|--------------------------|---------------------|--------------------------|
| 2011        | 8.7%                     | 7.9%                | 9.0%                     |
| 2012        | 8.4%                     | 7.9%                | 7.8%                     |
| 2013        | 6.5%                     | 6.0%                | 6.7%                     |
| 2014        | 6.9%                     | 5.8%                | 6.2%                     |
| 2015        | 5.0%                     | 5.1%                | 5.0%                     |
| 2016        | 4.7%                     | 4.8%                | 4.7%                     |
| 2017        | 4.4%                     | 4.9%                | 4.4%                     |
| 2018        | 4.0%                     | 4.2%                | 3.9%                     |
| 2019        | 4.5%                     | 4.6%                | 3.7%                     |
| 2020        | 7.0%                     | 7.1%                | 6.7%                     |

Source: US Bureau of Labor Statistics

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
PERSONAL INCOME**

|                               | 2010              | 2011              | 2012              | 2013              | 2014              |
|-------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| <b>Lehigh County</b>          |                   |                   |                   |                   |                   |
| Total Personal Income (\$000) | \$ 13,756,104.00  | \$ 14,431,990.00  | \$ 15,404,995     | \$ 15,587,384     | \$ 16,177,642     |
| Population (000)              | 349               | 353               | 355               | 355               | 358               |
| Per Capita Personal Income    | \$ 39,279         | \$ 40,890         | \$ 43,364         | \$ 43,897         | \$ 45,211         |
| <b>Pennsylvania</b>           |                   |                   |                   |                   |                   |
| Total Personal Income (\$000) | \$ 516,390,019    | \$ 538,908,724    | \$ 575,424,657    | \$ 594,915,004    | \$ 618,858,628    |
| Population (000)              | 12,702            | 12,743            | 12,763            | 12,781            | 12,792            |
| Per Capita Personal Income    | \$ 40,604         | \$ 42,291         | \$ 45,083         | \$ 46,202         | \$ 48,378         |
| <b>United States</b>          |                   |                   |                   |                   |                   |
| Total Personal Income (\$000) | \$ 12,353,577,000 | \$ 12,949,905,000 | \$ 13,404,868,963 | \$ 14,166,900,000 | \$ 14,955,700,000 |
| Population (000)              | 308,745           | 31,600            | 315,091           | 316,497           | 320,222           |
| Per Capita Personal Income    | \$ 39,365         | \$ 41,560         | \$ 43,735         | \$ 44,543         | \$ 40,962         |
|                               | 2015              | 2016              | 2017              | 2018              | 2019              |
| <b>Lehigh County</b>          |                   |                   |                   |                   |                   |
| Total Personal Income (\$000) | \$ 17,145,783     | \$ 17,734,075     | \$ 18,800,570     | \$ 19,735,321     | \$ 20,116,946     |
| Population (000)              | 360               | 366               | 368               | 363               | 369               |
| Per Capita Personal Income    | \$ 47,537         | \$ 48,834         | \$ 51,298         | \$ 53,614         | \$ 54,471         |
| <b>Pennsylvania</b>           |                   |                   |                   |                   |                   |
| Total Personal Income (\$000) | \$ 649,909,812    | \$ 676,880,269    | \$ 682,533,744    | \$ 720,073,441    | \$ 749,808,500    |
| Population (000)              | 12,802            | 12,805            | 12,807            | 12,791            | 12,802            |
| Per Capita Personal Income    | \$ 49,786         | \$ 52,096         | \$ 53,300         | \$ 56,225         | \$ 58,046         |
| <b>United States</b>          |                   |                   |                   |                   |                   |
| Total Personal Income (\$000) | \$ 15,737,700,000 | \$ 15,928,700,000 | \$ 17,164,600,000 | \$ 18,205,500,000 | \$ 18,675,100,000 |
| Population (000)              | 325,200           | 325,719           | 327,164           | 328,240           | 331,163           |
| Per Capita Personal Income    | \$ 48,112         | \$ 50,398         | \$ 53,712         | \$ 54,501         | \$ 56,650         |

Note: 2020 information is not available - 2019 information updated

Source: U.S. Department of Commerce, Economics and Statistical Administration, Bureau of Economic Analysis.

Office of Financial Management

FRED - Federal Reserve Economic Data

The Statistical Portal



**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
CIVILIAN LABOR FORCE 2001 - 2040**

|                      | Age<br>Group | 2001           | 2010           | Estimate       |                |                |
|----------------------|--------------|----------------|----------------|----------------|----------------|----------------|
|                      |              |                |                | 2020           | 2030           | 2040           |
| <b>Lehigh Valley</b> | 16 - 19      | 17,626         | 15,006         | 12,837         | 14,199         | 16,476         |
|                      | 20 - 24      | 27,409         | 34,858         | 31,941         | 34,313         | 40,776         |
|                      | 25 - 34      | 60,332         | 63,229         | 88,450         | 84,598         | 92,329         |
|                      | 35 - 44      | 81,995         | 71,451         | 70,163         | 94,126         | 92,172         |
|                      | 45-54        | 73,679         | 83,551         | 74,497         | 74,911         | 99,258         |
|                      | 55-64        | 34,398         | 52,236         | 67,344         | 60,838         | 62,106         |
|                      | 65+          | 11,172         | 15,280         | 26,173         | 33,884         | 33,775         |
|                      | <b>Total</b> | <b>306,611</b> | <b>335,611</b> | <b>371,405</b> | <b>396,869</b> | <b>436,892</b> |
| <b>Pennsylvania</b>  |              | 9,363,040      | 7,137,155      | 6,414,340      | NA             | NA             |
| <b>United States</b> |              | 212,577,000    | 233,658,000    | 160,567        | NA             | NA             |

**Note: NA means not available.**

Source: Table 29, Lehigh Valley Profile and Trends, 2013 Edition, Lehigh Valley Planning Commission.  
FRED - [fred.stlouisfed.org](http://fred.stlouisfed.org)

**\*\*2020 Census results not available at time of entry due to COVID\*\***

## **OPERATING INFORMATION**

This section provides trends of sales, customer growth, systems capacity, number of employees and other significant operating and capital indicators.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
WATER SALES AND CUSTOMER GROWTH**

| Customer Class                                | 2011      | 2012      | 2013      | 2014      | 2015      | 2016      | 2017      | 2018      | 2019      | 2020      |
|-----------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>SUBURBAN DIVISION</b>                      |           |           |           |           |           |           |           |           |           |           |
| <b>Western Lehigh Service Area (1):</b>       |           |           |           |           |           |           |           |           |           |           |
| <b>Sales:</b>                                 |           |           |           |           |           |           |           |           |           |           |
| Large Industrial                              | 406,184   | 448,848   | 575,145   | 699,377   | 726,196   | 732,464   | 647,574   | 622,634   | 665,161   | 663,152   |
| Other Industrial                              | 667,916   | 793,177   | 920,043   | 1,067,360 | 1,181,947 | 1,158,204 | 1,127,906 | 1,121,571 | 1,086,340 | 1,108,619 |
| Commercial/Sm. Industrial/Institutional/Other | 311,708   | 324,146   | 336,593   | 350,800   | 383,238   | 452,939   | 442,098   | 466,086   | 473,801   | 528,193   |
| Residential                                   | 973,927   | 960,988   | 940,112   | 945,500   | 954,476   | 1,072,729 | 960,662   | 1,041,458 | 1,060,341 | 1,176,376 |
| Total Sales                                   | 2,359,735 | 2,527,159 | 2,771,893 | 3,063,037 | 3,245,857 | 3,416,336 | 3,178,240 | 3,251,749 | 3,285,643 | 3,476,340 |
| <b>Customers:</b>                             |           |           |           |           |           |           |           |           |           |           |
| Large Industrial                              | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         |
| Other Industrial                              | 7         | 7         | 8         | 8         | 8         | 8         | 8         | 8         | 8         | 9         |
| Commercial/Sm. Industrial/Institutional       | 601       | 606       | 571       | 575       | 591       | 622       | 642       | 655       | 662       | 674       |
| Residential                                   | 17,539    | 17,718    | 17,977    | 18,160    | 18,338    | 18,828    | 19,143    | 20,042    | 20,232    | 20,544    |
| Total Customers                               | 18,148    | 18,332    | 18,557    | 18,744    | 18,938    | 19,459    | 19,794    | 20,706    | 20,903    | 21,228    |
| <b>Northern Lehigh Service Area (2):</b>      |           |           |           |           |           |           |           |           |           |           |
| <b>Sales:</b>                                 |           |           |           |           |           |           |           |           |           |           |
| Commercial/Sm. Industrial/Institutional       | 16,363    | 19,649    | 15,597    | 13,295    | 12,119    | 13,021    | 12,009    | 12,961    | 15,056    | 13,330    |
| Residential                                   | 92,716    | 91,110    | 87,898    | 86,939    | 86,239    | 88,078    | 83,774    | 84,353    | 82,771    | 90,181    |
| Total Sales                                   | 109,079   | 110,759   | 103,495   | 100,234   | 98,358    | 101,099   | 95,783    | 97,314    | 97,827    | 103,511   |
| <b>Customers:</b>                             |           |           |           |           |           |           |           |           |           |           |
| Commercial/Sm. Industrial/Institutional       | 68        | 69        | 69        | 69        | 69        | 69        | 70        | 70        | 71        | 72        |
| Residential                                   | 1,882     | 1,882     | 1,873     | 1,878     | 1,886     | 1,893     | 1,894     | 1,894     | 1,901     | 1,911     |
| Total Customers                               | 1,950     | 1,951     | 1,942     | 1,947     | 1,955     | 1,962     | 1,964     | 1,964     | 1,972     | 1,983     |
| <b>Northampton County Service Area (3):</b>   |           |           |           |           |           |           |           |           |           |           |
| <b>Sales:</b>                                 |           |           |           |           |           |           |           |           |           |           |
| Residential                                   | 3,575     | 3,478     | 3,352     | 3,438     | 3,286     | 3,627     | 3,459     | 3,498     | 3,383     | 3,537     |
| <b>Customers:</b>                             |           |           |           |           |           |           |           |           |           |           |
| Residential                                   | 67        | 67        | 67        | 67        | 67        | 67        | 67        | 67        | 67        | 67        |
| <b>CITY DIVISION (4)</b>                      |           |           |           |           |           |           |           |           |           |           |
| <b>Sales:</b>                                 |           |           |           |           |           |           |           |           |           |           |
| Other Industrial                              |           |           | 46,193    | 106,851   | 113,671   | 113,470   | 107,331   | 126,736   | 128,113   | 116,293   |
| Commercial/Sm. Industrial/Institutional/Other |           |           | 326,015   | 769,692   | 816,700   | 785,917   | 769,492   | 784,930   | 789,274   | 678,080   |
| Residential                                   |           |           | 1,026,687 | 2,121,604 | 2,147,484 | 2,160,603 | 2,158,560 | 2,152,837 | 2,137,892 | 2,269,456 |
| Total Sales                                   | -         | -         | 1,398,895 | 2,998,147 | 3,077,855 | 3,059,990 | 3,035,383 | 3,064,503 | 3,055,279 | 3,063,829 |
| <b>Customers:</b>                             |           |           |           |           |           |           |           |           |           |           |
| Other Industrial                              |           |           | 547       | 419       | 417       | 419       | 419       | 419       | 419       | 422       |
| Commercial/Sm. Industrial/Institutional       |           |           | 4,637     | 4,747     | 4,743     | 4,728     | 4,731     | 4,720     | 4,724     | 4,757     |
| Residential                                   |           |           | 41,464    | 41,615    | 41,588    | 41,615    | 41,620    | 41,198    | 41,274    | 41,742    |
| Total Customers                               | -         | -         | 46,648    | 46,781    | 46,748    | 46,762    | 46,770    | 46,337    | 46,417    | 46,921    |
| <b>ALL SERVICE AREAS:</b>                     |           |           |           |           |           |           |           |           |           |           |
| <b>Sales:</b>                                 |           |           |           |           |           |           |           |           |           |           |
| Large Industrial                              | 406,184   | 448,848   | 575,145   | 699,377   | 726,196   | 732,464   | 647,574   | 622,634   | 665,161   | 663,152   |
| Other Industrial                              | 667,916   | 793,177   | 920,043   | 1,067,360 | 1,181,947 | 1,158,204 | 1,127,906 | 1,121,571 | 1,086,340 | 1,108,619 |
| Commercial/Sm. Industrial/Institutional       | 328,071   | 343,795   | 336,593   | 350,800   | 383,238   | 452,939   | 442,098   | 466,086   | 473,801   | 528,193   |
| Residential                                   | 1,070,218 | 1,055,576 | 2,058,049 | 3,157,481 | 3,191,485 | 3,325,037 | 3,206,455 | 3,282,146 | 3,284,387 | 3,539,550 |
| Total Sales                                   | 2,472,389 | 2,641,396 | 4,277,635 | 6,164,856 | 6,425,366 | 6,581,052 | 6,312,865 | 6,417,064 | 6,442,132 | 6,847,217 |
| <b>Customers:</b>                             |           |           |           |           |           |           |           |           |           |           |
| Large Industrial                              | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         |
| Other Industrial                              | 7         | 7         | 555       | 427       | 425       | 427       | 427       | 427       | 427       | 431       |
| Commercial/Sm. Industrial/Institutional       | 669       | 675       | 5,277     | 5,391     | 5,403     | 5,419     | 5,443     | 5,445     | 5,457     | 5,503     |
| Residential                                   | 19,488    | 19,667    | 61,361    | 61,720    | 61,879    | 62,403    | 62,724    | 63,201    | 63,474    | 64,264    |
| Total Customers                               | 20,165    | 20,350    | 67,214    | 67,539    | 67,708    | 68,250    | 68,595    | 69,074    | 69,359    | 70,199    |

(1) Includes the Central Lehigh, Upper Milford, Arcadia West, Beverly Hills and Emmaus Consecutive divisions. Includes sales to Municipalities within Commercial/Sm Industrial/Institutional/Other.

(2) Includes the North Whitehall, Washington Township, Mill Creek, Heidelberg Heights and Pine Lakes of Lynn divisions.

(3) The Clearview Farm Estates system was acquired in May 2006.

(4) The City Division was acquired through a Lease Concession agreement on 8/8/13.

**Note: Total Sales is shown in thousands of gallons. Total Customers represent units served at year-end, not customer connections. In 2010, two accounts were reclassified from Commercial to Other Industrial.**

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
WATER SUPPLY SOURCES, DEMAND AND CAPACITY INFORMATION**

| Customer Class                                                                                    | ACTUAL     |            |            |            |            |            |            |            |            |            | PROJECTED  |            |
|---------------------------------------------------------------------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
|                                                                                                   | 2011       | 2012       | 2013       | 2014       | 2015       | 2016       | 2017       | 2018       | 2019       | 2020       | 2025       | 2030       |
| <b>SUBURBAN DIVISION</b>                                                                          |            |            |            |            |            |            |            |            |            |            |            |            |
| <b>Central Lehigh Division:</b>                                                                   |            |            |            |            |            |            |            |            |            |            |            |            |
| Average Daily Demand (Gallons)                                                                    | 6,749,000  | 7,105,000  | 8,000,000  | 8,760,000  | 9,085,000  | 9,329,000  | 9,284,500  | 9,557,914  | 9,736,210  | 10,328,712 | 11,650,000 | 12,100,000 |
| Maximum Daily Demand (Gallons)                                                                    | 11,502,000 | 10,368,000 | 11,129,000 | 10,935,000 | 10,819,000 | 12,273,000 | 11,890,000 | 12,101,447 | 11,754,797 | 13,107,605 | 14,920,000 | 18,790,000 |
| Estimated Safe Yield of Supplies (GPD)                                                            | 15,760,000 | 15,760,000 | 15,760,000 | 15,760,000 | 15,760,000 | 15,760,000 | 15,760,000 | 15,760,000 | 15,760,000 | 15,760,000 | 23,260,000 | (1)*       |
| Surplus/(Deficit) (GPD)                                                                           | 4,258,000  | 5,392,000  | 4,631,000  | 4,825,000  | 4,941,000  | 3,487,000  | 3,930,000  | 3,658,553  | 4,005,203  | 2,652,395  | 8,340,000  | 4,470,000  |
| (1) Includes WL-3 (-1.29 mgd) which is used intermittently                                        |            |            |            |            |            |            |            |            |            |            |            |            |
| * Includes 2010 Max day purchase from City of Allentown @ 3mgd and @ 10.5 mgd for 2020 and beyond |            |            |            |            |            |            |            |            |            |            |            |            |
| <b>Washington Township Division:</b>                                                              |            |            |            |            |            |            |            |            |            |            |            |            |
| Average Daily Demand (Gallons)                                                                    | 53,000     | 59,000     | 71,000     | 63,000     | 44,000     | 48,000     | 48,000     | 48,403     | 68,413     | 60,369     | 60,158     | 62,938     |
| Maximum Daily Demand (Gallons)                                                                    | 70,000     | 241,000    | 98,000     | 89,000     | 92,000     | 89,000     | 64,000     | 74,400     | 85,000     | 103,429    | 88,737     | 94,407     |
| Estimated Safe Yield of Supplies (GPD)                                                            | 214,000 *  | 214,000 *  | 214,000 *  | 214,000 *  | 214,000 *  | 214,000 *  | 214,000 *  | 214,000 *  | 214,000 *  | 214,000    | 214,000 *  | 214,000 *  |
| Surplus/(Deficit) (GPD)                                                                           | 144,000    | (27,000)   | 116,000    | 125,000    | 122,000    | 125,000    | 150,000    | 139,600    | 129,000    | 110,571    | 125,263    | 119,593    |
| * Maximum day purchase from Slatington (1,500,000 gal. over 7 days), by agreement                 |            |            |            |            |            |            |            |            |            |            |            |            |
| <b>North Whitehall Township Division:</b>                                                         |            |            |            |            |            |            |            |            |            |            |            |            |
| Average Daily Demand (Gallons)                                                                    | 241,000    | 255,000    | 253,000    | 259,000    | 346,000    | 469,000    | 356,000    | 406,121    | 461,086    | 500,771    | 500,000    | 505,000    |
| Maximum Daily Demand (Gallons)                                                                    | 374,000    | 439,000    | 413,000    | 364,000    | 520,000    | 835,000    | 454,000    | 538,443    | 735,015    | 796,986    | 535,000    | 540,000    |
| Estimated Safe Yield of Supplies (GPD)                                                            | 703,000 *  | 703,000 *  | 703,000 *  | 703,000 *  | 703,000 *  | 703,000 *  | 703,000 *  | 703,000 *  | 703,000 *  | 703,000    | 703,000 *  | 703,000 *  |
| Surplus/(Deficit) (GPD)                                                                           | 329,000    | 264,000    | 290,000    | 339,000    | 183,000    | (132,000)  | 249,000    | 164,557    | (32,015)   | (93,986)   | 168,000    | 163,000    |
| * Includes 390,000 gpd maximum purchase from NBMA over 30 days by agreement                       |            |            |            |            |            |            |            |            |            |            |            |            |
| <b>Mill Creek Estates Division:</b>                                                               |            |            |            |            |            |            |            |            |            |            |            |            |
| Average Daily Demand (Gallons)                                                                    | 5,000      | 5,000      | 5,000      | 6,000      | 5,000      | 5,200      | 5,200      | 5,191      | 4,916      | 5,208      | 9,000      | 10,000     |
| Maximum Daily Demand (Gallons)                                                                    | 10,000     | 18,000     | 15,000     | 26,000     | 12,000     | 10,000     | 10,000     | 10,007     | 8,680      | 8,480      | 15,000     | 15,000     |
| Estimated Safe Yield of Supplies (GPD)                                                            | 51,800     | 51,800     | 51,800     | 51,800     | 51,800     | 51,800     | 51,800     | 51,800     | 51,800     | 51,800     | 51,800     | 51,800     |
| Surplus/(Deficit) (GPD)                                                                           | 41,800     | 33,800     | 36,800     | 25,800     | 39,800     | 41,800     | 41,800     | 41,793     | 43,120     | 43,320     | 36,800     | 36,800     |
| <b>Heidelberg Heights Division:</b>                                                               |            |            |            |            |            |            |            |            |            |            |            |            |
| Average Daily Demand (Gallons)                                                                    | 38,000     | 40,000     | 25,000     | 35,000     | 42,000     | 33,000     | 29,800     | 31,862     | 31,332     | 32,362     | 37,000     | 37,000     |
| Maximum Daily Demand (Gallons)                                                                    | 68,000     | 59,000     | 68,000     | 84,600     | 70,000     | 73,000     | 43,000     | 62,883     | 64,723     | 54,945     | 64,000     | 64,000     |
| Estimated Safe Yield of Supplies (GPD)                                                            | 129,000    | 129,000    | 129,000    | 129,000    | 129,000    | 129,000    | 129,000    | 129,000    | 129,000    | 129,000    | 129,000    | 129,000    |
| Surplus/(Deficit) (GPD)                                                                           | 61,000     | 70,000     | 61,000     | 44,400     | 59,000     | 56,000     | 86,000     | 66,117     | 64,277     | 74,055     | 65,000     | 65,000     |
| <b>Pine Lakes of Lynn Division:</b>                                                               |            |            |            |            |            |            |            |            |            |            |            |            |
| Average Daily Demand (Gallons)                                                                    | 9,000      | 11,000     | 8,000      | 7,000      | 9,000      | 7,300      | 7,200      | 7,187      | 7,353      | 9,328      | 11,000     | 11,000     |
| Maximum Daily Demand (Gallons)                                                                    | 24,000     | 21,000     | 24,000     | 11,000     | 15,000     | 12,000     | 13,000     | 14,583     | 11,121     | 29,370     | 19,000     | 19,000     |
| Estimated Safe Yield of Supplies (GPD)                                                            | 72,000     | 72,000     | 72,000     | 72,000     | 72,000     | 72,000     | 72,000     | 72,000     | 72,000     | 72,000     | 72,000     | 72,000     |
| Surplus/(Deficit) (GPD)                                                                           | 48,000     | 51,000     | 48,000     | 61,000     | 57,000     | 60,000     | 59,000     | 57,417     | 60,879     | 42,630     | 53,000     | 53,000     |
| <b>Acadia West Division:</b>                                                                      |            |            |            |            |            |            |            |            |            |            |            |            |
| Average Daily Demand (Gallons)                                                                    | 13,000     | 14,000     | 17,000     | 18,000     | 22,000     | 22,000     | 23,000     | 27,374     | 25,705     | 23,030     | 48,500     | 48,500     |
| Maximum Daily Demand (Gallons)                                                                    | 28,000     | 33,000     | 38,000     | 73,000     | 54,000     | 85,000     | 49,000     | 58,386     | 46,133     | 145,200    | 194,000    | 194,000    |
| Estimated Safe Yield of Supplies (GPD)                                                            | 264,000    | 264,000    | 264,000    | 264,000    | 264,000    | 264,000    | 264,000    | 264,000    | 264,000    | 264,000    | 264,000    | 264,000    |
| Surplus/(Deficit) (GPD)                                                                           | 236,000    | 231,000    | 226,000    | 191,000    | 210,000    | 179,000    | 215,000    | 205,614    | 217,867    | 118,800    | 70,000     | 70,000     |
| <b>Beverly Hills Division:</b>                                                                    |            |            |            |            |            |            |            |            |            |            |            |            |
| Average Daily Demand (Gallons)                                                                    | 10,000     | 11,000     | 8,000      | 6,000      | 6,000      | 6,800      | 6,000      | 6,089      | 8,919      | 6,270      | 12,000     | 12,000     |
| Maximum Daily Demand (Gallons)                                                                    | 22,000     | 21,000     | 17,000     | 11,000     | 14,000     | 14,000     | 13,000     | 14,477     | 15,330     | 13,993     | 18,000     | 18,000     |
| Estimated Safe Yield of Supplies (GPD)                                                            | 33,000     | 33,000     | 33,000     | 33,000     | 33,000     | 33,000     | 33,000     | 33,000     | 33,000     | 33,000     | 33,000     | 33,000     |
| Surplus/(Deficit) (GPD)                                                                           | 11,000     | 12,000     | 16,000     | 22,000     | 19,000     | 19,000     | 20,000     | 18,523     | 17,670     | 19,007     | 15,000     | 15,000     |

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
WATER SUPPLY SOURCES, DEMAND AND CAPACITY INFORMATION (Continued)**

| Customer Class                          | ACTUAL  |         |            |            |            |            |            |            |            |            | PROJECTED  |            |
|-----------------------------------------|---------|---------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
|                                         | 2011    | 2012    | 2013       | 2014       | 2015       | 2016       | 2017       | 2018       | 2019       | 2020       | 2025       | 2030       |
| <b>Clearview Farm Estates Division:</b> |         |         |            |            |            |            |            |            |            |            |            |            |
| Average Daily Demand (Gallons)          | 10,000  | 10,000  | 10,000     | 10,000     | 10,000     | 10,000     | 8,800      | 9,147      | 9,857      | 8,755      | 13,000     | 13,000     |
| Maximum Daily Demand (Gallons)          | 23,000  | 21,000  | 20,000     | 11,000     | 19,000     | 29,000     | 15,000     | 17,400     | 21,550     | 16,470     | 25,000     | 25,000     |
| Estimated Safe Yield of Supplies (GPD)  | 35,000  | 35,000  | 35,000     | 35,000     | 35,000     | 35,000     | 35,000     | 35,000     | 35,000     | 35,000     | 35,000     | 35,000     |
| Surplus/(Deficit) (GPD)                 | 12,000  | 14,000  | 15,000     | 24,000     | 16,000     | 6,000      | 20,000     | 17,600     | 13,450     | 18,530     | 10,000     | 10,000     |
| <b>Ennaus Consecutive Division:</b>     |         |         |            |            |            |            |            |            |            |            |            |            |
| Average Daily Demand (Gallons)          | 67,000  | 65,000  | 65,000     | 63,000     | 63,000     | 63,000     | 64,000     | 59,871     | 61,824     | 71,016     | 64,000     | 64,000     |
| Maximum Daily Demand (Gallons)          | 82,000  | 75,000  | 72,000     | 67,000     | 67,000     | 71,000     | 68,000     | 64,541     | 67,785     | 80,030     | 67,000     | 67,000     |
| Estimated Safe Yield of Supplies (GPD)  | N/A     | N/A     | N/A        | N/A        | N/A        | N/A        | N/A        | N/A        | N/A        | N/A        | N/A        | N/A        |
| Surplus/(Deficit) (GPD)                 | N/A     | N/A     | N/A        | N/A        | N/A        | N/A        | N/A        | N/A        | N/A        | N/A        | N/A        | N/A        |
| <b>Buss Acres Division:</b>             |         |         |            |            |            |            |            |            |            |            |            |            |
| Average Daily Demand (Gallons)          | 20,000  | 19,000  | 18,000     | 17,000     | 23,000     | 28,000     | 24,000     | 21,401     | 19,289     | 18,248     | 21,000     | 21,000     |
| Maximum Daily Demand (Gallons)          | 38,000  | 27,000  | 31,000     | 27,000     | 53,000     | 51,000     | 16,000     | 35,525     | 32,900     | 33,167     | 30,000     | 30,000     |
| Estimated Safe Yield of Supplies (GPD)  | 118,000 | 118,000 | 118,000    | 118,000    | 118,000    | 118,000    | 118,000    | 118,000    | 118,000    | 118,000    | 118,000    | 118,000    |
| Surplus/(Deficit) (GPD)                 | 80,000  | 91,000  | 87,000     | 91,000     | 65,000     | 67,000     | 102,000    | 82,475     | 85,100     | 84,833     | 88,000     | 88,000     |
| <b>Madison Park Division:</b>           |         |         |            |            |            |            |            |            |            |            |            |            |
| Average Daily Demand (Gallons)          | 15,000  | 14,000  | 14,000     | 13,000     | 13,000     | 13,000     | 13,000     | 13,308     | 14,602     | 13,886     | 27,000     | 27,000     |
| Maximum Daily Demand (Gallons)          | 27,000  | 21,000  | 24,000     | 25,000     | 30,000     | 24,000     | 24,000     | 18,300     | 20,533     | 27,001     | 41,000     | 41,000     |
| Estimated Safe Yield of Supplies (GPD)  | 137,000 | 137,000 | 137,000    | 137,000    | 137,000    | 137,000    | 137,000    | 137,000    | 137,000    | 137,000    | 137,000    | 137,000    |
| Surplus/(Deficit) (GPD)                 | 110,000 | 116,000 | 113,000    | 112,000    | 107,000    | 113,000    | 113,000    | 118,700    | 116,467    | 109,999    | 96,000     | 96,000     |
| <b>CITY DIVISION ***</b>                |         |         |            |            |            |            |            |            |            |            |            |            |
| Average Daily Demand (Gallons)          |         |         | 18,373,000 | 18,389,059 | 19,989,940 | 20,408,474 | 21,156,763 | 21,492,755 | 21,512,142 | 21,388,766 | 23,000,000 | 26,000,000 |
| Maximum Daily Demand (Gallons)          |         |         | 29,457,000 | 25,288,600 | 26,120,900 | 25,296,100 | 27,135,900 | 29,756,200 | 29,504,800 | 28,256,000 | 30,000,000 | 33,000,000 |
| Estimated Safe Yield of Supplies (GPD)  |         |         | 71,000,000 | 71,000,000 | 71,000,000 | 71,000,000 | 71,000,000 | 71,000,000 | 71,000,000 | 71,000,000 | 71,000,000 | 71,000,000 |
| Surplus/(Deficit) (GPD)                 |         |         | 41,543,000 | 45,711,400 | 44,879,100 | 45,703,900 | 43,864,100 | 41,243,800 | 41,495,200 | 42,744,000 | 41,000,000 | 38,000,000 |

\*\*\* The City Fund was new to the Authority in 2013, and as such information prior to 2013 is not applicable.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
WASTEWATER COLLECTOR SYSTEM GROWTH AND BILLABLE FLOW**

| System                          | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    |
|---------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Upper Milford:</b>           |         |         |         |         |         |         |         |         |         |         |
| Residential Customers           | 501     | 739     | 762     | 773     | 781     | 790     | 819     | 849     | 916     | 956     |
| Commercial/Industrial Customers | 31      | 42      | 42      | 42      | 49      | 49      | 49      | 48      | 47      | 48      |
| Total Customers                 | 532     | 781     | 804     | 815     | 830     | 839     | 868     | 897     | 963     | 1,004   |
| Billable Flow (1)               | 37,608  | 47,804  | 51,626  | 56,443  | 58,976  | 52,959  | 57,509  | 58,436  | 58,896  | 64,746  |
| <b>Weisenberg Township: (4)</b> |         |         |         |         |         |         |         |         |         |         |
| Residential Customers           | 146     | 146     | 146     | 146     | 149     | 149     | 149     | 149     | 149     | 149     |
| Commercial/Industrial Customers | 14      | 14      | 14      | 15      | 3       | 3       | 3       | 3       | 3       | 3       |
| Total Customers                 | 160     | 160     | 160     | 161     | 152     | 152     | 152     | 152     | 152     | 152     |
| Billable Flow (1)               | 12,507  | 11,227  | 13,939  | 14,818  | 12,196  | 12,285  | 10,833  | 10,975  | 11,454  | 9,571   |
| <b>Heidelberg Heights: (2)</b>  |         |         |         |         |         |         |         |         |         |         |
| Residential Customers           | 145     | 145     | 145     | 145     | 145     | 145     | 145     | 145     | 145     | 145     |
| Billable Flow                   | 7,592   | 7,203   | 7,663   | 6,872   | 6,112   | 6,752   | 6,544   | 6,638   | 6,613   | 6,721   |
| <b>Wynnewood Terrace: (2)</b>   |         |         |         |         |         |         |         |         |         |         |
| Residential Customers           | 217     | 217     | 217     | 217     | 219     | 219     | 222     | 222     | 222     | 222     |
| Commercial/Industrial Customers | 2       | 2       | 2       | 2       | 2       | 2       | 2       | 2       | 2       | 2       |
| Total Customers                 | 219     | 219     | 219     | 219     | 221     | 221     | 224     | 224     | 224     | 224     |
| Billable Flow (1)               | 14,331  | 13,795  | 13,854  | 13,211  | 13,249  | 13,386  | 13,087  | 12,785  | 12,960  | 12,442  |
| <b>Sand Spring: (3)</b>         |         |         |         |         |         |         |         |         |         |         |
| Residential Customers           | 248     | 248     | 248     | 248     | 248     | 248     | 248     | 248     | 248     | 248     |
| Commercial/Industrial Customers | 9       | 9       | 9       | 9       | 9       | 9       | 9       | 9       | 9       | 9       |
| Total Customers                 | 257     | 257     | 257     | 257     | 257     | 257     | 257     | 257     | 257     | 257     |
| Billable Flow (1)               | 8,463   | 8,463   | 8,277   | 8,019   | 8,080   | 8,143   | 8,954   | 8,196   | 8,201   | 8,501   |
| <b>Washington Township: (5)</b> |         |         |         |         |         |         |         |         |         |         |
| Residential Customers           | 596     | 597     | 599     | 601     | 601     | 602     | 602     | 602     | 602     | 602     |
| Commercial/Industrial Customers | 22      | 22      | 22      | 22      | 23      | 23      | 23      | 23      | 23      | 23      |
| Total Customers                 | 618     | 619     | 621     | 623     | 624     | 625     | 625     | 625     | 625     | 625     |
| Billable Flow (1)               | 26,394  | 27,450  | 26,397  | 25,940  | 25,963  | 25,327  | 24,587  | 23,642  | 23,775  | 25,489  |
| <b>Lynn Township: (6)</b>       |         |         |         |         |         |         |         |         |         |         |
| Residential Customers           | -       | 403     | 403     | 406     | 406     | 410     | 411     | 411     | 411     | 411     |
| Commercial/Industrial Customers | -       | 21      | 21      | 21      | 21      | 21      | 21      | 21      | 21      | 21      |
| Total Customers                 | -       | 424     | 424     | 427     | 427     | 431     | 432     | 432     | 432     | 432     |
| Billable Flow (1)               | -       | 786     | 1,444   | 1,746   | 1,406   | 1,150   | 1,223   | 1,199   | 1,116   | 883     |
| <b>Lowhill Township: (7)</b>    |         |         |         |         |         |         |         |         |         |         |
| Residential Customers           | -       | -       | -       | -       | -       | 43      | 43      | 43      | 43      | 43      |
| Billable Flow                   | -       | -       | -       | -       | -       | 1,789   | 2,114   | 2,335   | 2,220   | 2,060   |
| <b>Total Collector Systems:</b> |         |         |         |         |         |         |         |         |         |         |
| Residential Customers           | 1,853   | 2,495   | 2,520   | 2,536   | 2,549   | 2,606   | 2,639   | 2,669   | 2,736   | 2,776   |
| Commercial/Industrial Customers | 78      | 110     | 110     | 111     | 107     | 107     | 107     | 106     | 105     | 106     |
| Total Customers                 | 1,931   | 2,605   | 2,630   | 2,647   | 2,656   | 2,713   | 2,746   | 2,775   | 2,841   | 2,882   |
| Billable Flow (1)               | 106,895 | 116,728 | 123,200 | 127,049 | 125,982 | 121,791 | 124,851 | 124,206 | 125,235 | 130,413 |

- (1) Flow is shown in thousands of gallons.
- (2) The Authority acquired these systems in the initial year where a customer total is indicated. Customers within these service areas were billed based on a flat rate through 2009. In 2010, metered water usage was used to bill those customers with meters and an assumed usage of 180 gallons per day was used to bill unmetered customers.
- (3) The Authority acquired this system on 12/30/04, but since there was very little billable flow the customer additions are shown in 2005. During 2006 individual water meters were installed to record billable flow at 26 residential apartment buildings and each commercial facility.
- (4) Includes Pointe West and Arcadia West systems.
- (5) The Authority took over operations and billing responsibilities for this system on April 1, 2009.
- (6) The Authority took over operations and billing responsibilities for this system on February 29, 2012.
- (7) The Authority took over operations and billing responsibilities for this system on June 8, 2016.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
WESTERN LEHIGH INTERCEPTOR  
AVERAGE DAILY WASTEWATER FLOW  
ACTUAL AND PROJECTED**

|               |      |                    |                      | (3)                   |
|---------------|------|--------------------|----------------------|-----------------------|
|               | Year | System<br>Flow (1) | Billable<br>Flow (2) | % of Flow<br>Unbilled |
| Actual        | 2011 | 9.37               | 6.07                 | 35.2%                 |
|               | 2012 | 7.48               | 5.33                 | 28.7%                 |
|               | 2013 | 7.87               | 5.43                 | 31.0%                 |
|               | 2014 | 9.48               | 5.91                 | 37.6%                 |
|               | 2015 | 8.27               | 7.38                 | 10.8%                 |
|               | 2016 | 7.76               | 7.21                 | 7.1%                  |
|               | 2017 | 9.25               | 6.83                 | 26.2%                 |
|               | 2018 | 11.85              | 7.26                 | 38.7%                 |
|               | 2019 | 11.65              | 7.41                 | 36.4%                 |
|               | 2020 | 9.61               | 7.52                 | 21.8%                 |
| Projected (A) | 2025 | 10.78              |                      |                       |
|               | 2030 | 11.00              |                      |                       |

(1) System flow to City of Allentown recorded at Keck's Bridge Meter Station and Spring Creek Road Pump Station.

(2) Flow billed to municipalities.

(3) Represents assumed infiltration and inflow into the interceptor system. Higher percentage levels for 2011 are a direct result of significant precipitation events.

**Note: Flow is reported in millions of gallons per day.**

(A) Source: LCA Planning Records.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
LITTLE LEHIGH RELIEF INTERCEPTOR BILLABLE FLOWS**

| Municipality    | Billable System Flow |           |           |           |           |           |           |           |           |           |
|-----------------|----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                 | 2011                 | 2012      | 2013      | 2014      | 2015      | 2016      | 2017      | 2018      | 2019      | 2020      |
| Alburtis        | 45,202               | 47,928    | 41,777    | 51,354    | 51,158    | 54,195    | 52,490    | 50,308    | 48,755    | 50,092    |
| Lowhill         | 2,440                | 3,167     | 2,776     | 2,644     | 2,677     | 2,544     | 2,144     | 2,345     | 2,284     | 2,376     |
| Lower Macungie  | 650,770              | 620,044   | 516,771   | 533,139   | 527,857   | 494,538   | 518,599   | 634,716   | 545,880   | 567,224   |
| Macungie        | 80,218               | 73,540    | 73,737    | 76,675    | 68,271    | 70,642    | 61,212    | 69,421    | 66,273    | 61,002    |
| Salisbury       | 158,848              | 136,429   | 150,181   | 136,491   | 144,735   | 143,806   | 140,072   | 148,696   | 156,206   | 149,637   |
| South Whitehall | 554,389              | 621,811   | 607,613   | 491,939   | 407,528   | 384,152   | 292,224   | 283,239   | 247,576   | 276,788   |
| Upper Macungie  | 1,222,438            | 1,235,346 | 1,098,889 | 1,125,723 | 1,136,997 | 1,182,468 | 1,114,969 | 1,095,301 | 1,082,922 | 1,131,753 |
| Upper Milford   | 39,534               | 54,251    | 54,840    | 60,363    | 61,345    | 55,120    | 60,916    | 60,910    | 45,499    | 51,552    |
| Weisenberg      | 10,015               | 11,277    | 15,741    | 11,624    | 11,869    | 12,396    | 10,649    | 13,377    | 11,154    | 11,909    |
| Total           | 2,763,854            | 2,803,793 | 2,562,325 | 2,489,952 | 2,412,437 | 2,399,861 | 2,253,275 | 2,358,313 | 2,206,549 | 2,302,333 |

**Note: Flow is shown in thousands of gallons per year.**



**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
OPERATING AND CAPITAL INDICATORS**

|                                                                | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    |
|----------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Suburban Division Water System:</b>                         |         |         |         |         |         |         |         |         |         |         |
| Water Sales (MGD)                                              | 6.76    | 7.23    | 7.89    | 8.68    | 9.17    | 9.62    | 8.98    | 8.79    | 8.89    | 9.79    |
| Average Daily Demand (MGD)                                     | 7.23    | 7.62    | 8.50    | 9.27    | 9.68    | 10.04   | 9.88    | 10.07   | 10.35   | 11.09   |
| Peak Day Demand (MGD)                                          | 12.30   | 11.38   | 11.97   | 11.75   | 11.78   | 13.60   | 12.65   | 13.02   | 12.88   | 14.43   |
| Safe Supply Capacity (MGD) (4)                                 | 16.69   | 16.69   | 17.70   | 17.70   | 17.70   | 17.70   | 17.70   | 17.70   | 17.70   | 17.70   |
| System Storage Capacity (MG)                                   | 11.09   | 11.15   | 11.15   | 11.15   | 11.15   | 11.15   | 11.17   | 11.17   | 11.17   | 11.17   |
| Miles of Water Mains                                           | 312.08  | 316.60  | 318.35  | 319.92  | 322.52  | 329.67  | 341.78  | 343.00  | 341.80  | 341.80  |
| <b>Suburban Division Wastewater System:</b>                    |         |         |         |         |         |         |         |         |         |         |
| Average Daily flow to Kline's Island (1)                       | 8.73    | 7.40    | 7.77    | 8.92    | 7.88    | 7.98    | 8.80    | 11.19   | 10.92   | 9.04    |
| Treatment Capacity (2)                                         | 10.68   | 10.68   | 10.78   | 10.78   | 10.78   | 10.78   | 10.78   | 10.78   | 10.78   | 10.78   |
| Wastewater Allocation Sold (gallons per day)                   | 49,879  | 104,569 | 165,903 | 47,609  | 273,392 | 124,800 | 75,476  | 78,511  | 231,237 | 294,873 |
| Treatment Plant Design Capacity in Collector Systems (GPD) (3) | 155,000 | 315,000 | 315,000 | 355,000 | 355,000 | 355,000 | 355,000 | 355,000 | 355,000 | 355,000 |
| Miles of Pipe:                                                 |         |         |         |         |         |         |         |         |         |         |
| Western Lehigh Interceptor                                     | 25.51   | 25.51   | 25.51   | 25.51   | 25.51   | 25.51   | 25.51   | 25.51   | 25.51   | 25.51   |
| Little Lehigh Relief Interceptor                               | 5.66    | 5.66    | 5.66    | 5.66    | 5.66    | 5.66    | 5.66    | 5.66    | 5.66    | 5.66    |
| Collector System                                               | 23.06   | 35.86   | 36.62   | 35.86   | 35.97   | 40.16   | 40.51   | 40.76   | 39.19   | 39.07   |
| Total Miles of Wastewater System Pipe                          | 54.23   | 67.03   | 67.79   | 67.03   | 67.14   | 71.33   | 71.68   | 71.93   | 70.36   | 70.24   |
| <b>City Division Water System: *</b>                           |         |         |         |         |         |         |         |         |         |         |
| Water Sales (MGD)                                              |         |         | 9.65    | 8.21    | 8.43    | 8.36    | 8.32    | 8.40    | 8.37    | 8.37    |
| Average Daily Demand (MGD)                                     |         |         | 18.37   | 18.39   | 19.99   | 20.41   | 21.16   | 21.49   | 21.51   | 21.67   |
| Peak Day Demand (MGD)                                          |         |         | 29.46   | 25.29   | 26.12   | 25.30   | 27.14   | 29.76   | 29.50   | 28.26   |
| Safe Supply Capacity (MGD)                                     |         |         | 71.00   | 71.00   | 71.00   | 71.00   | 71.00   | 71.00   | 71.00   | 71.00   |
| System Storage Capacity (MG)                                   |         |         | 50.00   | 50.00   | 50.00   | 50.00   | 50.00   | 50.00   | 50.00   | 50.00   |
| Miles of Water Mains                                           |         |         | 320.00  | 320.00  | 320.00  | 320.00  | 320.00  | 320.00  | 320.00  | 320.00  |
| <b>City Division Wastewater System: *</b>                      |         |         |         |         |         |         |         |         |         |         |
| Average Daily flow received at Klines Island (1)               |         |         | 30.71   | 32.39   | 30.44   | 29.67   | 30.78   | 36.07   | 37.64   | 32.28   |
| Wastewater Allocation Used (MGD)                               |         |         | 40.00   | 40.00   | 40.00   | 40.00   | 40.00   | 40.00   | 40.00   | 40.00   |
| Treatment Plant Design Capacity                                |         |         | 40.00   | 40.00   | 40.00   | 40.00   | 40.00   | 40.00   | 40.00   | 40.00   |
| Miles of Pipe                                                  |         |         | 285.00  | 285.00  | 285.00  | 285.00  | 285.00  | 285.00  | 285.00  | 285.00  |

- (1) Represents the annual flow in millions of gallons per day billed by the Kline Island WW Treatment Plant to the Divisions for treatment services.
- (2) Represents Divisional Capacity in millions of gallons per day in the Kline Island WW Treatment Plant's 40 million gallons per day (mgd) treatment plant at year end.
- (3) The following collector systems with package treatment plants were acquired by the Suburban Division:
- a. Heidelberg Heights in 1998. A new treatment plant was completed in 2000 to replace a nonfunctioning plant.
  - b. The Wynnewood Terrace (51,900 gallons per day) and Arcadia Industrial Park (12,000 gallons per day) systems were purchased in 2003. The Wynnewood Plant was upgraded to 60,000 gallons per day in December 2005. The Arcadia plant was permanently removed from service in August 2006 because of operating problems. Flow through the station resumed in January 2014.
  - c. The Sand Spring System (35,000 gallons per day) was purchased in 2004.
- (4) Some figures have been changed to correct for past reporting errors.
- Note: MGD equates to millions of gallons per day. GPD equates to gallons per day and MG equates to millions of gallons.
- \* The City Fund was new to the Authority in 2013, and as such information prior to 2013 is not applicable.

**Note: MGD equates to millions of gallons per day, GPD equates to gallons per day and MG equates to millions of gallons.**

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
NUMBER OF EMPLOYEES BY FUND**

|                                             |  | Total Fulltime Equivalent Employees |      |      |       |       |       |       |       |       |       |
|---------------------------------------------|--|-------------------------------------|------|------|-------|-------|-------|-------|-------|-------|-------|
|                                             |  | 2011                                | 2012 | 2013 | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
| <b>SUBURBAN DIVISION</b>                    |  |                                     |      |      |       |       |       |       |       |       |       |
| Administration, Customer Service & Clerical |  | 12.1                                | 11.4 | 10.6 | 9.8   | 9.3   | 10.1  | 10.0  | 11.3  | 12.5  | 12.4  |
| Water Operations                            |  | 14.0                                | 13.4 | 15.2 | 14.8  | 14.2  | 15.3  | 18.2  | 17.0  | 17.1  | 21.2  |
| Water Capital (1)                           |  | 4.9                                 | 4.7  | 5.7  | 1.9   | 3.5   | 3.2   | 2.8   | 3.3   | 3.4   | 5.0   |
| Wastewater Operations                       |  | 5.3                                 | 5.8  | 5.5  | 5.8   | 6.5   | 7.1   | 6.9   | 7.1   | 8.5   | 8.3   |
| Wastewater Capital (1)                      |  | 3.3                                 | 2.9  | 1.3  | 1.0   | 1.0   | 1.0   | 1.3   | 1.7   | 2.9   | 2.5   |
| <b>CITY DIVISION (2) *</b>                  |  |                                     |      |      |       |       |       |       |       |       |       |
| Administration, Customer Service & Clerical |  |                                     |      | 8.8  | 15.6  | 17.1  | 17.0  | 18.3  | 18.3  | 19.2  | 17.5  |
| Water Operations                            |  |                                     |      | 17.5 | 48.3  | 43.5  | 34.7  | 37.5  | 39.4  | 39.8  | 39.3  |
| Water Capital (1)                           |  |                                     |      | 1.6  | 2.0   | 4.4   | 6.9   | 5.8   | 4.9   | 3.0   | 2.5   |
| Wastewater Operations                       |  |                                     |      | 17.9 | 46.8  | 46.6  | 47.9  | 48.5  | 48.8  | 47.7  | 51.8  |
| Wastewater Capital (1)                      |  |                                     |      | 0.3  | 1.7   | 1.7   | 2.3   | 1.4   | 1.2   | 1.2   | 2.0   |
| Total                                       |  | 39.6                                | 38.2 | 84.4 | 147.7 | 147.8 | 145.5 | 150.7 | 153.0 | 155.3 | 162.5 |
| # of Employees at year-end:                 |  |                                     |      |      |       |       |       |       |       |       |       |
| Fulltime                                    |  | 40                                  | 37   | 141  | 150   | 148   | 148   | 155   | 160   | 162   | 157   |
| Parttime                                    |  | -                                   | -    | 1    | -     | -     | -     | -     | -     | -     | -     |

(1) Includes inspectors and employees working on Capital Projects.

(2) For 2013, count includes City employees from 8/8/13 to end of year. Calculation for 2013 was corrected in 2014.

\* The City Fund was new to the Authority in 2013, and as such information prior to 2013 is not applicable.

Note: A fulltime employee is equivalent to 2,080 hours per year (including vacation and other offtime). Fulltime equivalent employment is calculated by dividing total hours allocated to a fund by total organization hours. Total FTE's may exceed employees at year-end because of seasonal help and fulltime employees leaving employment before year-end without being replaced.

**OTHER INFORMATION**

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
PROFILE OF AUTHORITY MANAGEMENT STAFF  
December 31, 2020**

**Liesel M. Gross, Chief Executive Officer**

Ms. Gross holds a Master's Degree in Public Administration Degree from Kutztown University and a Bachelor's Degree in Journalism / Public Relations from Indiana University of Pennsylvania. She has been employed by the Authority since 1998. She began her service to the Authority in a public relations role and became the Authority's Customer & Communications Manager in 2006. In her role as Chief Executive Officer, which she began in 2016, Ms. Gross focuses attention on providing broad organizational leadership both internally and externally, with a focus on developing collaboration and synergies among operational groups and engaging employees and the public in future decision-making of the Authority.

Over her years of service to the Authority, she has served in numerous positions in local, state and national professional associations. She served on the Board of Directors of the American Water Works Association (AWWA) from 2016 to 2019. She also has served as Chair of the American Water Works Association, Pennsylvania Section, Trustee of the Northeast District AWWA, and has served on numerous committees of the Association at the state and national level, including the Water Utility Council and the Workforce Strategies, Knowledge Management, and Diversity & Member Inclusion committees of the AWWA. She is a current member of the Board of Directors for the East Penn Chamber of Commerce, and the Greater Lehigh Valley Chamber of Commerce's Energy & Environment Committee, and serves as the secretary of the Lehigh Valley Water Suppliers, Inc. She is currently serving on the Legislative Committee of the Pennsylvania Municipal Authorities Association and the Executive Committee of the Water Resources Association of the Delaware River Basin.

**Edward C. Klein, Chief Financial Officer**

Prior to joining the Authority in 2015, Mr. Klein worked for almost fifteen years with Weir Hazleton, Inc. as Vice President of Finance. His primary area of responsibility was for all financial activities of the business and had responsibility for Human Resources, Information Technology, Safety, and Administration. He also served in the operations area of the business for a short period of time as Interim Vice President of Operations.

Mr. Klein has a Master's Degree in Business Administration from Pennsylvania State University and a Bachelor's Degree in Accounting from King's College. He has provided financial leadership which had a positive impact on the performance of the businesses that he has served by implementing solid financial structure, being a business partner to the executive team through analysis and advice, eliminating waste, managing risks of the business, and being a champion of change.

In his role as Chief Financial Officer, Mr. Klein focuses on the financial infrastructure and controls to support the strategic objectives of the Authority and provides the financial leadership to allow the Authority to improve its overall performance in a highly dynamic economic environment.

**John W. Parsons, Chief Operations Officer**

Prior to joining the Authority in 2013, Mr. Parsons worked for the City of Allentown for 18 years in roles of increasing leadership in the water resources arena. He holds Master's Degree in

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
PROFILE OF AUTHORITY MANAGEMENT STAFF  
December 31, 2020  
(Continued)**

Engineering from Penn State University, and a Bachelor's Degree in Chemistry from Lebanon Valley College. He also holds water and wastewater treatment certifications through the Pennsylvania Department of Environmental Protection and is a certified sewage enforcement officer. During his tenure with the City of Allentown, Mr. Parsons managed many different aspects of the City's water and wastewater systems including serving as Laboratories Manager and Program Manager for all plant maintenance, capital upgrades and more. Since joining the Authority after the lease of the City systems, he has served as Capital Works Manager for the Authority's City Division, managing major capital improvement projects and collaborating broadly with the City's Office of Compliance to develop financial and project reporting protocols. In his role as Chief Operations Officer, Mr. Parsons draws on his knowledge of the existing system operations and strong management skills to develop plans and programs for increased cost-effectiveness, collaboration and system sustainability, driving the Authority's asset management culture into the future.

**Charles Volk, P.E., Chief Capital Works Officer**

Charles Volk holds a Bachelor's Degree in Civil Engineering from the Pennsylvania State University. He joined the Authority in 2015 after 30 years of engineering experience, the majority of which was spent engineering water and wastewater system projects as a consultant. Mr. Volk has designed and managed numerous water and wastewater treatment and conveyance projects, and has extensive experience with regulatory and funding agencies. He also served as engineer for Lehigh Northampton Airport Authority. Mr. Volk is a registered professional engineer in Pennsylvania, and is a member of various professional organizations and also serves as a Township Supervisor for his local municipality.

In his role as Chief Capital Works Officer, Mr. Volk is responsible for the planning, design, and construction of capital improvement projects, many of which are driven by an asset management protocol for Authority's linear and vertical water and wastewater assets. Mr. Volk is responsible for prioritizing facility improvements projects in the capital planning process, with a focus on reducing long term life-cycle costs and minimizing risk. Mr. Volk also oversees management and providing capital planning leadership for the Authority's industrial wastewater pre-treatment plant and provides in-house engineering support across departments.

**Susan Sampson, Communications Manager**

Susan Sampson holds a Bachelor's Degree in Rehabilitation Counseling from the Pennsylvania State University. She joined the Authority in 2017 after 23 years of corporate public relations, communications, and management experience. She attended the Carroll School of Management at Boston College, earning a certificate in Corporate Community Involvement. She has extensive community, media, and legislative relations experience and has managed corporate partnerships with national organizations, driving results with customer and public education campaigns.

In her role as Communications Manager, Ms. Sampson is responsible for the development and implementation of a strategic communications plan, including internal and external communications, and customer education. She manages the company website and social media, as well as relationships with media contacts. She coordinates community relations on behalf of Lehigh County Authority, including youth outreach, volunteer events, site visits, speaking engagements, community partnerships, and more.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
PROFILE OF AUTHORITY MANAGEMENT STAFF  
December 31, 2020  
(Continued)**

**Christopher W. Moughan, Chief Information Officer**

Christopher Moughan holds a Master's of Business Administration from DeSales University and undergraduate degrees from Muhlenberg College and Penn State. He is also MCSE Certified, and has certificates of training for several business reporting software suites. He joined the Authority in 2017 after spending many years in the information technology field focusing on security and innovative ways for organizations to gain efficiencies.

He is responsible for leading, planning and organizing all activities of the Information Technology (IT) department and to ensure the effective, efficient and secure operation of information technology processes and systems. He also governs the Authority's IT strategic plan and direction of the department, including providing oversight on IT governance, developing user groups, and assessing development training needs. Mr. Moughan provide the vision and leadership to drive the adoption of technology, innovation and automation for the organization. Through this work, he supports the Authority's goals for process improvement, knowledge retention and capture, and efficiency.

**Philip M. DePoe, P.E., Senior Planning Engineer**

Mr. DePoe holds a Bachelor's Degree in Civil Engineering from the Pennsylvania State University. He joined the Authority in 2014 as a Capital Works Engineer after eight years of service in the engineering consulting business. He worked as a project engineer prior to joining the Authority, where he obtained his professional engineering license for Pennsylvania. In addition, Mr. DePoe is a Board member of the Water Works Operators' Association of Pennsylvania , where he has served as Editor since 2010.

Prior to his new role as a Interim Senior Planning Engineer at the Authority, Mr. DePoe was the Capital Works Program Manager where he developed the annual capital plan for both the Suburban and City Division. His role included significant management of capital activities for the Allentown Filtration Plant and the Kline's Island Wastewater Treatment Plant. Mr. DePoe assumed his new role as Interim Senior Planning Engineer in late 2019 and is now responsible for strategic long-term water and wastewater facility planning, resource development, and support for the Authority's overall regional service approach. In this role, he works closely with all municipalities within the Authority's service area to ensure long-term water and sewer needs are met, and coordinates activities among various Authority departments, regulators and consultants to develop plans to meet the region's needs.

**Andrew D. Moore, Compliance Manager**

Mr. Moore holds a Bachelor's Degree in Forensic Chemistry from York College of Pennsylvania. He joined the Authority in 2017 after seven years of laboratory management and wastewater plant operation. He holds a PA DEP State Board Wastewater Operators A-E 2-5 certification and is involved with multiple wastewater and drinking water organizations, including sitting on the Board of Directors for the Pretreatment Information Exchange, Inc.

In his role as Compliance Manager, Mr. Moore is responsible for overseeing compliance of the Authority's water and wastewater facilities. He ensures the organization is held to the highest ethical standards in managing the Industrial Pretreatment Program, overseeing laboratory operation and regulatory monitoring. In addition, he examines and advises on new environmental regulations in order to identify risks to the Authority's compliance.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
PROFILE OF AUTHORITY MANAGEMENT STAFF  
December 31, 2020  
(Continued)**

**Kathy A. Martin, Human Resources Manager**

Mrs. Martin joined Lehigh County Authority in July 2013, just prior to the lease concession agreement with the City of Allentown. Prior to joining the Authority, Mrs. Martin had more than 25 years of human resources experience primarily with SPX Heat Transfer and predecessor companies. She has a Bachelor of Arts Degree in Human Resources from Moravian College, and Professional Human Resources certifications from the Human Resources Certification Institute and the Society of Human Resources Management.

In her role as Human Resources Manager, Mrs. Martin is responsible for developing and executing human resources strategies in support of the overall business plan and strategic direction of the organization, specifically in the areas of succession planning, talent management, performance management, employee engagement and labor relations, compensation and benefits, training and development, and policy management.

**Kevin German, Risk Manager**

Mr. German started his career with Lehigh County Authority in 1979. He began in field operations, worked as a Laborer, and advanced to become an Electrician and a Technician III. By accepting increasing levels of technical, professional and leadership responsibilities over his years of service, Mr. German was appointed as a system Foreman in 2000 and Senior Foreman in 2003. In the operations arena, one of his key accomplishments was supporting the installation and programming of the Authority's first Supervisory Control and Data Acquisition (SCADA) system. In 2012, he was appointed Risk Manager.

In this role, he is responsible for maintaining the Authority's employee health and safety program, coordinating emergency response programs, managing the Authority's fleet of vehicles and large equipment, and managing all insurances and claims for the Authority. He holds several professional certifications and licenses including National Association of Sewer Service Companies (NASSCO) certification, PA-DEP Water and Wastewater Certified Operator licenses, Incident Command System (ICS) 100, 200, 300, and other related emergency management certifications. He is an active member of the board of directors for the Pennsylvania One Call System (POCS) since 2006 currently serving as Executive Vice Chairman. He currently serves on the damage prevention committee for Pennsylvania Utility Commission (PUC). Mr. German represents the Authority in the Lehigh Valley Regional Partnership and was a co-founder of this regional organization that is focused on reducing damage and costs associated with utility construction projects.

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
PROFILE OF AUTHORITY BOARD MEMBERS  
December 31, 2020**

**Brian C. Nagle, Chairman – Term Expires December 31, 2024**

Mr. Nagle holds a Bachelor of Science degree in Mechanical Engineering from Rutgers University. Mr. Nagle is a life-long resident of the Lehigh Valley and is now retired from PPL Corporation after 38 years of service in engineering, project management, environmental management and regulatory affairs. He was a founding Board member of the Sustainable Energy Fund and served on the Board of the Wildlands Conservancy for 8 years until 2015. He currently sits on the Board of Macungie Memorial Park Association. Mr. Nagle has also been involved in the Lehigh Valley's initiatives to preserve open space and revitalize abandoned industrial sites. Mr. Nagle has been an Authority Board member since 2009.

**Scott C. Bieber, Vice Chairman – Term Expires December 31, 2022**

Mr. Bieber lives in Upper Milford Township and holds a Bachelor of Arts Degree in Political Science from Kutztown University. He is the owner of Lehigh Soils and Wetlands, a small environmental consulting firm that offers on-site sewage treatment testing and design, storm water infiltration and wetland services. He is also a certified Pennsylvania Sewage Enforcement Officer providing regulatory contract services to several municipalities in Lehigh and Carbon Counties. Prior to that, he was a reporter for *The Morning Call* for ten years covering local government, the environment and water and sewer issues. He is vice chair of the Lehigh County Agricultural Land Preservation Board, a member of the Upper Milford Open Space Committee and a former member of the Upper Milford Planning Commission. Mr. Bieber became an Authority Board member in March 2010.

**Richard H. Bohner, Secretary – Term Expires December 31, 2022**

Mr. Bohner holds a Master of Business Administration degree from Lehigh University and a Bachelor of Science degree in Finance from Pennsylvania State University. He is retired from Pennsylvania Power & Light Company where he was Manager of Customer Support Systems. During his career, he was active in the Edison Electric Institute. Mr. Bohner has served as an Authority director since 1972 and has received the Sahli Award and the Extended Service Award from the Pennsylvania Municipal Authorities Association.

**Norma A. Cusick, Assistant Secretary – Term Expires December 31, 2024**

Ms. Cusick holds a Bachelor of Arts degree from De Sales University and a Master of Arts degree from Kutztown University, and is a certified paralegal. She has been a resident of Lehigh County for 44 years and was a small business owner and business manager. Ms. Cusick has served as the Division Director for the American Heart Association, Allentown Downtown Improvement District, the Board of Directors of the Allentown Public Library, Salisbury Township School Board, Salisbury Township Commissioner, Salisbury Township Planning Commission and is currently on the Salisbury Township Education Foundation.



**LEHIGH COUNTY AUTHORITY  
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PROFILE OF AUTHORITY BOARD MEMBERS  
December 31, 2020**

Ms. Cusick has served on the Board of Directors of the Pennsylvania Shakespeare Festival, Child Advocacy Center and the Lehigh Valley Hospital Board of Associates and was past President of the Lehigh County Sports Fields. She has also participated with and served on several additional community organizations, including the Greater Lehigh Valley Girl Scouts. Throughout the period of her residence, she continues to be active in many other local, regional, and statewide endeavors. Ms. Cusick became an Authority Board member in March 2010.

**Ted Lyons Jr., Treasurer – Term Expires December 31, 2023**

Mr. Lyons holds a Bachelor of Science degree in Civil Engineering from Duke and an MBA from the Wharton School University of Pennsylvania. He is retired from HT Lyons, Inc., a mechanical contracting and engineering firm which he founded in 1973 and was acquired by PPL in 1998. He serves on the boards of the Allentown Boys and Girls Club and the Allentown Art Museum. He is also a past board member of the Allentown Symphony and the DaVinci Science Center. Mr. Lyons became an Authority Board member in August 2014.

**Linda A. Rosenfeld, Member – Term Expires December 31, 2021**

Ms. Rosenfeld attended Penn State University. A lifelong resident of Lehigh County, she is a retired office manager and has served as President of Allentown City Council, Vice-president of Lehigh County Board of Commissioners, Chair of the Allentown Commercial and Industrial Development Authority, Vice-chair of the Lehigh Northampton Airport Authority, Member of the Bridgeworks Advisory Board, Chair of the Allentown Parking Authority, President of Big Brothers and Big Sisters of Lehigh County, President of Haven House (Partial Hospitalization Program for the Mentally Ill). She is presently on the Executive Committee of the Board of Associates of Cedar Crest College, Secretary of Repertory Dance Theatre, member of the Haven House Advisory Board, ex-officio on the Board of Allentown Economic Development Authority (AEDC) and most recently appointed to the Allentown Commercial and Industrial Development Authority (ACIDA). She served 15 years as a Court Appointed Special Advocate (CASA) a volunteer representing and advocating for children going through the Court System, many of whom are neglected or abused. Ms. Rosenfeld became an Authority Board member in January 2015.

**Kevin I. Baker, Assistant Treasurer – Term Expires December 31, 2025**

Mr. Baker holds a Bachelor of Science degree in Chemical Engineering from University College, London and an MBA from Manchester Business School, University of Manchester in the UK. He is a Fellow of the Institution of Chemical Engineers and a Chartered European Engineer. He is Vice President of Universal Industrial Gases, a supplier of industrial gases and related equipment and services. He is a long-time resident of Lehigh County and previously served as President of the East Penn Chamber of Commerce and on the Board of Governors for the Lehigh Valley Chamber. Mr. Baker became an Authority Board member in April of 2016.

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ALLENTOWN, PENNSYLVANIA  
PROFILE OF AUTHORITY BOARD MEMBERS  
December 31, 2020**

**Jeffrey J. Morgan, Member – Term Expires December 31, 2021**

Mr. Morgan grew up in Allentown and graduated from William Allen High School. He earned a Bachelor of Science degree in Physics from Muhlenberg College and a Master of Science degree in Environmental Engineering and Water Resources from Villanova University. He is a professional engineer licensed in PA, NJ and DE. He has over 30 years of diverse engineering and client management experience in the water and wastewater industry. Mr. Morgan works for a small engineering firm that specializes in water, wastewater, industrial pretreatment, construction management and stormwater work for municipalities and authorities. Mr. Morgan has volunteered his time with various youth sports organizations over the years and is currently in his fifteenth year of volunteering with the South Parkland Youth Association's Football Program. Mr. Morgan currently resides in South Whitehall Township with his wife and two college age children. Mr. Morgan became an Authority Board member in March 2017.

**Amir Famili, Member – Term Expires December 31, 2023**

Mr. Famili holds a Ph.D. degree in Chemistry from University of Akron. He worked at Air Products and Chemicals for 34 years before retirement in 2018. While in Air Products, Mr. Famili was Global Technology Director and Chief Technology Officer of the Performance Material business responsible for new products, application development and new process development. He is a long-time resident of the Lehigh Valley. Mr. Famili is member of Allentown West Rotary Club and a core volunteer of Lehigh Valley Habitat for Humanity. Mr. Famili became an Authority Board member in July 2019.

## **Strategic Plan**

## LCA Vision

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*To be an industry-leading provider of world-class water services, today and tomorrow.*

## LCA Mission

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*We will deliver exceptional value to our customers through our high-quality, affordable and reliable water and wastewater services. We will meet the needs and expectations of existing and future customers by:*

- *Operating in a fiscally responsible manner.*
- *Providing a rewarding, respectful, empowering and safe work environment for our employees with opportunities for professional fulfillment.*
- *Practicing and advancing environmental stewardship that protects and preserves water resources for current and future generations.*
- *Serving as a strategic and respected partner, investing in solutions for our community's evolving service needs.*

## LCA Values

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*Our actions are rooted in the following core values:*

*We act with integrity.*

*We are accountable.*

*We are respectful of others.*

*We are dependable.*

*We foster teamwork.*

*We improve continually.*

## LCA's Critical Goal Categories (CGCs)

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### *CGC # 1 – Organizational Synergy*

**Develop a dynamic and unified organizational culture in which employees at all levels seek ways to utilize our complementary strengths to improve performance and teamwork while achieving LCA's mission.**

#### How we focus on this Critical Goal Category:

- Develop a unified organizational culture
- Create clear expectations for employees and managers
- Create opportunities for employees to work together on organizational goals
- Create an empowered workforce
- Develop a consistent management approach & support managers with resources and training
- Develop a consistent approach to managing and retaining critical data, documents and employee knowledge

#### How we measure success:

- Employee survey results
- Reduced employee turnover

## *CGC # 2 – Capital Asset Management*

***Achieve system sustainability through properly managing, maintaining and optimizing the use of existing assets, proactively planning to meet the needs of future generations of customers, and evaluating new technology to enhance performance and quality.***

### How we focus on this Critical Goal Category:

- Develop plans to meet projected 10-year growth needs (facilities, supplies, infrastructure, IT, etc.)
- Enhance automation and use technology to increase integration / data management / accessibility / data integrity
- Create customer growth
  - Attract water intensive/high-strength users
  - Acquisitions/consolidation – realize economies of scale/scope
- Optimize utilization of existing infrastructure/investments

### How we measure success:

- Customer growth (e.g. X% growth per year, 5-year average)
- Capital investment per customer
- Planned vs. unplanned maintenance

## *CGC # 3 – Operations & Financial Management*

***Provide high-quality, affordable, reliable services to our community through expert system operations and professional financial management.***

### How we focus on this Critical Goal Category:

- Optimize water resources & supply
- Enhance automation and maximize use of existing technology
- Comply with concession operating requirements
- Standardize and integrate operations
- Actively develop enhanced risk management / security / emergency response plans
- Evaluate alternatives for operation of the Authority's Wastewater Pretreatment Plant
- Improve cost effectiveness & productivity

### How we measure success:

- Increased efficiency (e.g. increase by X% per year, 5-year average)
- Rate affordability (e.g. rates are < X% of median household income)
- Cost per 1000 gallons
- Maintain 99.95% service reliability
- Employee safety



## *CGC # 4 – Workforce Sustainability*

***Create a supportive and empowering work environment where employees actively seek to contribute toward LCA’s mission, with resources and programs established to ensure organizational sustainability through a stable and engaged workforce.***

### How we focus on this Critical Goal Category:

- Develop staffing plans, including succession plans as applicable, to meet current and future organizational needs
- Recruit, retain and develop a highly qualified, engaged workforce
- Develop, implement and enforce an employee safety program
- Develop flexibility and opportunity for operational employees to work interchangeably across divisions

### How we measure success:

- Non-retirement turnover rate
- Vacancy rate
- Employee satisfaction
- Employee safety
- Bench strength

## *CGC # 5 – Environmental & Regulatory Compliance*

***Serve as a steward of our water resources and protect the public's health through compliance with regulatory requirements and establishing programs to promote resource conservation and protection.***

### How we focus on this Critical Goal Category:

- Comply with all applicable laws
- Monitor and respond to upcoming legislative and regulatory changes, and industry trends, that impact LCA operations
- Compliance with the EPA Administrative Order
- Promote water conservation / watershed protection / water resource management through stakeholder outreach
- Protect our water supply from potential sources of contamination
- Develop electronic permit management system
- Monitor source water quality and respond to changes to maintain or improve public health protection and/or reduce future treatment costs

### How we measure success:

- Number of violations / NOVs
- Incident rate / severity of SSOs

## *CGC # 6 – Community & Customer Relations*

***Actively engage the community and our customers in our plans and programs to ensure LCA is positioned to meet the needs of existing and future customers.***

### How we focus on this Critical Goal Category:

- Seek & respond to customer/public input as a tool for planning and continuous improvement
- Provide a satisfying customer and public input experience
- Foster a work environment where employees consider customer service and public mission as part of our everyday operation
- Track formal support and opposition LCA receives for our plans, permit applications and other high-profile projects

### How we measure success:

- Customer satisfaction
- Reduction in “controllable” customer contacts

**LEHIGH COUNTY AUTHORITY  
ALLENTOWN, PENNSYLVANIA  
ACQUISITIONS/LEASES/OPERATING CONTRACTS**

| Acquisition<br>Date          | Development                              | Municipality                            | Purchase<br>Price | Original<br>Customers | Current<br>Customers |
|------------------------------|------------------------------------------|-----------------------------------------|-------------------|-----------------------|----------------------|
| <b>Water Systems:</b>        |                                          |                                         |                   |                       |                      |
| April 14, 1976               | Fairways at Brookside                    | Lower Macungie Twp.                     | \$ 180,000        | 92                    | 596                  |
| June 1, 1976                 | Millbrook Farms                          | Lower Macungie Twp.                     | 92,339            | 2                     | 337                  |
| July 1, 1976                 | Pine Grove Park                          | Lower Macungie Twp.                     | 25,000            | 166                   | 187                  |
| January 1, 1979              | Shepherd Hills                           | Lower Macungie Twp.                     | 325,000           | 453                   | 675                  |
| June 28, 1979                | Mark Terrace                             | Upper Macungie Twp.                     | 8,250             | 25                    | 27                   |
| January 1, 1980              | Ancient Oak                              | Lower Macungie Twp.                     | 1,350,000         | 1,055                 | 1,143                |
| May 20, 1980                 | Upper Macungie                           | Upper Macungie Twp.                     | 200,000           | (5)                   | 479                  |
| October 1, 1981              | Country Downs                            | Lower Macungie Twp.                     | 12,000            | 36                    | 130                  |
| March 14, 1984               | Clearview Manor                          | Lower Macungie Twp.                     | 150,000           | (1)                   | 191                  |
| May 31, 1989                 | Penn Hills                               | North Whitehall Twp.                    | 78,500            | 94                    | 113                  |
| August 16, 1991              | Slatedale/Emerald                        | Washington Twp.                         | -                 | 360                   | 404                  |
| September 30, 1991           | Schnecksville North                      | North Whitehall Twp.                    | 210,000           | (2)                   | 238                  |
| October 1, 1991              | Crestwood                                | North Whitehall Twp.                    | 105,000           | (3)                   | 210                  |
| January 24, 1992             | Green Hills                              | Upper Macungie Twp.                     | 357,700           | (4)                   | 307                  |
| December 14, 1993            | Country Home Acres                       | Lower Macungie &<br>Salisbury Twps.     | 32,000            | 56                    | 60                   |
| February 2, 1998             | Mink Estates/Farview Farms               | Upper Milford Twp.                      | -                 | 41                    | 71                   |
| February 22, 2002            | Pine Lakes of Lynn                       | Lynn Township                           | -                 | 59                    | 60                   |
| June 26, 2002                | Heidelberg Heights                       | Heidelberg Twp.                         | 267,481           | 189                   | 190                  |
| June 12, 2003                | Arcadia West IP                          | Weisenberg Twp.                         | 400,000           | 5                     | 16                   |
| December 30, 2004            | Sand Spring                              | North Whitehall Twp.                    | 35,350            | 257                   | 258                  |
| February 22, 2005            | Mill Creek                               | Washington Twp.                         | -                 | 35                    | 35                   |
| March 30, 2005               | Beverly Hills                            | Lower Milford Twp                       | 29,800            | 43                    | 44                   |
| May 31, 2006                 | Clearview Farms Estates                  | Moore Twp, Northampton Co.              | -                 | 66                    | 67                   |
| March 16, 2007               | Emmaus Out-of-Borough                    | Lower Macungie & Upper<br>Milford Twps. | 131,000           | 415                   | 419                  |
| April 4, 2007                | Buss Acres                               | Upper Milford Twp.                      | 205,450           | 100                   | 100                  |
| July 8, 2010                 | Lynn Water Company                       | Lynn Township                           | 233,637           | 116                   | 116                  |
| <b>Wastewater Systems:</b>   |                                          |                                         |                   |                       |                      |
| September 23, 1998           | Heidelberg Heights                       | Heidelberg Twp.                         | -                 | 145                   | 145                  |
| June 12, 2003                | Arcadia West IP                          | Weisenberg Twp.                         | -                 | 5                     | 19                   |
| July 11, 2003                | Wynnewood Terrace                        | North Whitehall Twp.                    | 547,184           | 216                   | 219                  |
| December 30, 2004            | Sand Spring                              | North Whitehall Twp.                    | 126,000           | 257                   | 257                  |
| May 16, 2006                 | Lehigh County Wastewater Treatment Plant | Upper Macungie Twp.                     | -                 | Not Applicable        |                      |
| April 1, 2009                | Washington Township Sewer System         | Washington Twp.                         | -                 | 613                   | 626                  |
| February 29, 2012            | Lynn Township Sewer System               | Lynn Township                           | -                 | 424                   | 431                  |
| June 8, 2016                 | Lowhill Township Sewer System            | Lowhill Township                        | -                 | 43                    | 43                   |
| <b>City Division System:</b> |                                          |                                         |                   |                       |                      |
| August 7, 2013               | City of Allentown                        | City of Allentown                       | 246,205,824       | (6)                   | 46,643               |

- (1) Purchase price represents the initial upfront payment. Additional payments of \$680 per connection are made as new homes are served. A total of \$396,160 has been paid through 12/31/12.
- (2) Purchase price represents the initial upfront payment. Additional payments of \$375 per apartment and \$750 per single family or twin connection are made as new units are served. The Authority has an additional exposure of \$17,550 for new commercial connections to the system. A total of \$251,250 has been paid through 12/31/12.
- (3) Purchase price represents an initial upfront payment. Additional payments of \$500 per connection are made as new homes are served. A total of \$118,500 has been paid through 12/31/12.
- (4) Purchase price represents an initial upfront payment. Additional payments of \$1,100 or \$1,250 per connection, dependent upon location, are made as new homes are served. A total of \$817,750 has been paid through 12/31/12.
- (5) Excludes Mark Terrace and Green Hills customers which are listed separately.
- (6) Purchase price represents the I) upfront payment, less fair value of conveyed capital assets, II) the discounted future annual payments, and III) the discounted future Capex Fund funding requirements.

**Note:** Current customers represents residential and commercial units served as of 12/31/20, not customer connections, for those systems acquired before 12/31/20.



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

## MEMORANDUM

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**TO: LCA Board of Directors**  
**FROM: Christopher Moughan, Director of Service and Technology**  
**DATE: 2/28/2022**  
**RE: Emergency Declaration for repairs on 8" water main, N 27<sup>th</sup> St, Allentown**

On January 28<sup>th</sup>, 2022, there was a main break on the 200 block of N 27<sup>th</sup> Street between West Chew and Parkway Blvd. The 8-inch main split and we lost a 12" section of pipe on the south side of the southernmost valve at the intersection of Chew and 27<sup>th</sup>. A substantial amount of water escaped and washed the entire road subbase from West Chew down towards Parkway Blvd. The total length of road disturbance was approximately 600 feet.

The break and subsequent water flow caused significant damage to 27<sup>th</sup> street with voids and ground heave. Jason Gruber, Manager of Distribution and Collection, in our Allentown Division and his team were able to isolate and shut down the leak.

The existing water main was installed in 1952 and is 8-inch spun cast grey iron. The records also indicated we had a similar break (Longitudinal) in 2001. Because of those factors and the amount of destruction of the roadway and repairs required, LCA opted to have the water main, and services replaced prior to fully restoring the roadway surface. This also allowed LCA to explore more of the subbase and verify if any other voids were present.

Upon inspection of the damage and internal discussion, Jason Gruber's recommendation of replacing the full water main service on 27<sup>th</sup> Street and road repair was approved as an interim emergency repair. The emergency repair and road restoration was completed on 2/16/2022, with cost details shown below.

| Vendor                | Service/Materials | Cost         |
|-----------------------|-------------------|--------------|
| Core & Main           | Pipe Materials    | \$21,570     |
| JOAO Bradley          | Pipe Replacement  | \$83,525     |
| Great Western Service | Paving            | \$108,498.70 |

The total cost of this repair is \$213,593.70. This figure includes final road restoration which will be completed in the spring of 2022. Standard purchasing protocols as laid out by LCA's Financial Guidelines were waived for procurement of both materials and contractor services due to the urgency of the work and the interim emergency declaration. With the total repair and replacement cost of this event above \$50,000, we are seeking a retroactive emergency declaration from LCA's Board of Directors.

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# MEMORANDUM

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**Date:** February 28, 2022

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

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

**Subject:** Kline's Island Sewer System Final (Long-Term) Act 537 Plan Preparation:  
Planning Phase

**MOTIONS / APPROVALS REQUESTED:**

| No. | Item                                                                                  | Amount     |
|-----|---------------------------------------------------------------------------------------|------------|
| 1   | Capital Plan Authorization: AECOM – Final Act 537 Plan Preparation                    | \$234,705  |
| 1A  | Professional Services Authorization: AECOM – Regional Act 537 Plan Program Management | \$184,705* |

*\*Included in the Capital Project Authorization*

## **1. Final Act 537 Plan Preparation**

**AUTHORIZATION OVERVIEW:**

ARRO will develop the Final Act 537 Plan (the “Plan”) for the Kline’s Island Sewer System (KISS). The Plan submission will include the 2020 and 2021-2025 planning module projections from the approved Interim Act 537 Plan. The Plan will also include planning module projections for the 2026-2050 planning horizon for all 15 municipalities connected to the KISS system. The Plan will ultimately outline construction projects and other related items that the City of Allentown, Lehigh County Authority, and all tributary municipalities will execute during the 2026-2035 implementation phase.

**FINANCIAL:**

Costs associated with the development of the Interim Plan will be paid by the City of Allentown and reimbursed through existing intermunicipal agreements and by City customers through the use of the Administrative Order Fee.

**CURRENT STATUS:**

In late 2019, ARRO was retained to prepare the Interim Act 537 Plan. PA DEP approved the Interim Act 537 Plan on June 25, 2021. Various aspects of the Act 537 Plan preparation have been ongoing since late 2019. Given the DEP mandated deadline of March 2025 for Final Act 537 Plan preparation, multiple authorizations have been and will continue to be requested.

Writing of the Final Act 537 can begin upon approval of this authorization.

**THIS APPROVAL – PLANNING PHASE:**

ARRO serves as the Municipal/Regulatory Coordinator for the Regional Act 537 Plan development and this authorization will continue their current role. These services include, but are not limited to, the following:

| Professional Services                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>Attend various meetings with DEP, LCA, KISS Signatories</li></ul>                       |
| <ul style="list-style-type: none"><li>Develop a Task Activity Report (TAR) and submit to DEP</li></ul>                        |
| <ul style="list-style-type: none"><li>Coordinate with various consultants to incorporate alternatives and solutions</li></ul> |

|                                                                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• Develop a draft Plan following the DEP 537 checklist</li> </ul>                            |
| <ul style="list-style-type: none"> <li>• Address all public comments and KISS municipal planning commissions</li> </ul>             |
| <ul style="list-style-type: none"> <li>• Assemble and distribute hard copies of the final Plan to each KISS municipality</li> </ul> |
| <ul style="list-style-type: none"> <li>• Address and incorporate comments and submit final Plan to PA DEP</li> </ul>                |

**CONSULTANT SELECTION PROCESS:**

ARRO was retained by the KISS Region in late 2019 to prepare the DEP mandated Interim Act 537 Plan. Due to their intimate knowledge acquired through the Interim Act 537 Plan preparation phase, the KISS Region recommends that ARRO once again be retained for this phase of the Final Act 537 Plan development.

**SCHEDULE:**

This authorization is a continuation of their prior Interim Act 537 Plan preparation services. This Act 537 planning work is mandated by PA DEP to be submitted by March 2025.

**FUTURE AUTHORIZATIONS:**

None anticipated.

February 21, 2022

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

ATTN: Phil DePoe, PE  
Senior Planning Engineer

RE: Proposal to Provide Professional Services  
Long-Term Act 537 Plan Preparation  
1221-PW02

Dear Mr. DePoe:

Lehigh County Authority is soliciting proposals to assist with the preparation of a sewage facilities plan under PA Act 537. This is the long-term plan that will encompass collection, conveyance and treatment for the Kline's Island Sewer System. ARRO Consulting is pleased to provide this proposal to assist the Lehigh County Authority with preparing the long-term Act 537 Plan. ARRO will provide the services identified in the Scope of Services below.

### SCOPE OF SERVICES

1. Attend four (4) meeting with PADEP and the Authority to discuss the requirements of the Plan.
2. Revise scope of services, if modified, based on meeting with PADEP and submit to Authority for approval.
3. Develop a Task Activity Report and submit to KISS Signatories and PADEP.
4. Attend monthly status meetings with KISS municipalities to review progress and discuss items needed from each municipality. Review schedules and the status of other consultants' assignments. This proposal assumes (seventeen) 17 in-person meetings and (seventeen) 17 virtual meetings.
5. Review KISS municipal Chapter 94 Reports for consistency with planning objectives.
6. Compile KISS municipality flow projections into tabular form for inclusion in the Plan.
7. Coordinate with various consultants (AECOM, Kleinfelder, Jacobs, Arcadis) to incorporate alternatives and solutions into the Final Plan.



8. Develop a draft Plan following the PADEP *Act 537 Plan Content and Environmental Assessment Checklist (Checklist)*. Consolidate information from the KISS municipalities including flow projections, treatment evaluations, and collection and conveyance studies. Treatment and conveyance alternatives and their estimated present worth costs will be developed by Kleinfelder and Arcadis, respectively.
9. Develop and maintain a file sharing platform (ShareFile) for distribution of information to the Authority and the KISS municipalities.
10. Download one (1) electronic copy of draft Plan to ShareFile for review and comment.
11. Address comments and submit to County Planning Department and KISS municipal planning commissions.
12. Address comments and publish 30-day comment period notice.
13. Develop a master schedule of all KISS municipal meetings for tracking final approvals and adoptions.
14. Attend KISS municipal meetings as necessary to explain the Plan and the planning process. This proposal assumes attendance at both Planning Commission meetings as well as Board of Supervisor meetings. Two (2) meetings per KISS municipality/Authority equals (thirty-four) 34 meetings.
15. Address and incorporate all comments and municipal adoptions into the final Plan.
16. Assemble and distribute one (1) hard copy of the final Plan in a 3-ring binder to each KISS municipality/Authority (total =17).

## SPECIFIC SERVICES EXCLUDED

Services not set forth within the Scope of Services are specifically excluded, including:

1. Publishing and paying for all legal notices.
2. Scheduling of meeting of all KISS municipalities to be hosted at the Authority's office.
3. Mapping of the service area.
4. Attendance at additional meetings.

5. Any tasks from *Checklist* associated with on-lot disposal systems or Sewage Management Programs.
6. PennVest funding will not be pursued and therefore will not require the *Environmental Report* as required by the *Uniform Environmental Review Process (UER)*.
7. Additional copies of draft and/or final plan.

## SCHEDULE

ARRO will begin development of the Long-Term Act 537 Plan upon receipt of written notice to proceed. Estimated completion is March 2025.

| SCOPE ITEM                                                                         | ESTIMATED COMPLETION DATE |
|------------------------------------------------------------------------------------|---------------------------|
| Meeting with PADEP                                                                 | 12/16/2021                |
| Meeting with all Municipalities                                                    | 1/13/2022                 |
| Receive 2050 planning projections from Municipalities                              | 4/6/2022                  |
| Coordinate with various consultants and incorporate alternatives into Draft Report | 4/30/2024                 |
| LCA and KISS Municipalities review & comment                                       | 5/31/2024                 |
| Receive comments from County Planning                                              | 7/31/2024                 |
| Address comments and generate final report                                         | 8/31/2024                 |
| Issue public notice and begin 30-day comment period                                | 9/30/2024                 |
| End public comment period                                                          | 11/15/2024                |
| Address/include comments and finalize Plan                                         | 12/1/2024                 |
| Municipal Adoptions                                                                | Feb /Mar 2025             |
| Submit Plan to PADEP                                                               | 3/31/2025                 |

## AUTHORITY'S RESPONSIBILITIES

1. Provide contact information for all KISS municipalities.
2. Designate a person to act as its representative with respect to the services to be rendered under this Agreement. Such person shall have complete authority to transmit instructions, receive information, and interpret and define Authority's policies and decisions pertaining thereto within a reasonable time so as not to delay the services of ARRO.

3. Arrange for access to and make all provisions for ARRO to enter upon public and private property as required for ARRO to perform its services.
4. Obtain approvals and permits from and pay fees of all governmental authorities having jurisdiction over the project, and such approvals and consents from others as may be necessary for completion of the project.
5. Assist ARRO by placing at its disposal all available information pertinent to the project, including previous reports and any other data relative to the work covered herein.
6. Examine all studies, reports, sketches, drawings, specifications, proposals, and other documents presented by ARRO, obtain advice of an attorney, insurance counselor, and other consultants as Authority deems appropriate for such examination, and render in writing decisions pertaining thereto within a reasonable time so as not to delay the services of ARRO.
7. Provide such accounting, legal, and insurance counseling services as may be required by Authority for the project or as ARRO may reasonably request with regard to legal, accounting, and insurance issues pertaining to the project including any that may be raised by a third party.
8. Give prompt written notice to ARRO whenever Authority observes or otherwise becomes aware of any development that affects the scope or timing of ARRO's services or becomes aware of any unsatisfactory performance by ARRO.

## COMPENSATION

In consideration of the services performed by ARRO in accordance with this Agreement, the Authority shall pay ARRO on a time and expenses basis in accordance with ARRO's 2022 "Schedule of Hourly Rates and Charges for Professional Services" which is attached. Work done in subsequent years shall be at the rates and charges applicable to that year, a copy of which will be furnished to the Authority at their request.

These services shall be provided for a total not-to-exceed fee of One Hundred Eighty-Four Thousand, Seven Hundred Five Dollars (\$184,705.00). This fee is based on needing 980 hours to complete the scope of services. In the event that such services are altered by a modification to this Agreement, the Authority and ARRO, shall, at the time of such modification, also agree to an equitable adjustment in the not-to-exceed value stated above.

We appreciate the opportunity to present this proposal to the Authority and we look forward to working with the Authority on this project. Please let us know if you have any questions or would like to discuss this proposal in more detail.

Sincerely,

A handwritten signature in blue ink, appearing to read "Michael A. Schober".

Michael A. Schober, PE, BCEE

Vice President



## INSTRUCTIONS FOR COMPLETING ACT 537 PLAN CONTENT AND ENVIRONMENTAL ASSESSMENT CHECKLIST

*Remove and recycle these instructions prior to submission.*

### CHECKLIST INSTRUCTIONS

These instructions are designed to assist the applicant in completing the *Act 537 Plan Content and Environmental Assessment Checklist*.

This checklist is composed of three parts: one for "General Information," one for "Administrative Completeness," and one for "General Plan Content". A plan must be **administratively complete** in order to be formally reviewed by the Department of Environmental Protection (DEP). The "General Plan Content" portion of the checklist identifies each of the issues that must be addressed in your Act 537 Plan Update based on the pre-planning meeting between you and/or your consultant and DEP.

Use the right-hand column blanks in the checklist to identify the page in the plan on which each planning issue is found or to reference a previously approved update or special study (title and page number).

If you determine a planning issue is not applicable even though it was previously thought to be needed, please explain your decision within the text of the plan (or as a footnote) and indicate the page number where this documentation is found.

When information required as part of an official plan update revision has been developed separately or in a previous update revision, incorporate the information by reference to the planning document and page.

For specific details covering the Act 537 planning requirements, refer to 25 *Pa. Code* Chapters 71 and 73 of DEP's regulations.

Wastewater projects proposing funding through the following sources must prepare an "Environmental Report" as described in the Uniform Environmental Review (UER) process and include it with the plan submission designated as "Plan-Appendix A". The following funding programs use the UER process.

- The Clean Water State Revolving Loan Fund (PENNVEST, DEP, EPA)
- The RUS Water and Waste Disposal Grant and Loan Program (USDA-RD)
- The Community Development Block Grant Program (DCED, HUG)
- Other Federal Funding Efforts (EPA)

The checklist items or portions of checklist items required in the Act 537 Plan Update revision and that are also included in the UER process are indicated by **shading**. Most of the "Environmental Report" document may be constructed from the Act 537 Official Plan Update revision by using "copy & paste" techniques. The technical guidance document *Guidelines for the Uniform Environmental Review Process in Pennsylvania* (381-5511-111) is available electronically in DEP's eLibrary online at [www.dep.pa.gov](http://www.dep.pa.gov).

After Municipal Adoption by Resolution, submit 3 copies of the plan, any attachments or addenda and this checklist to DEP.

A copy of this completed checklist must be included with your Act 537 plan. DEP will use the "DEP USE ONLY" column during the completeness evaluation of the plan. This column may also be used by DEP during the pre-planning meeting with the municipality to identify planning elements that are not required to be included in the plan.



## ACT 537 PLAN CONTENT AND ENVIRONMENTAL ASSESSMENT CHECKLIST

### PART 1 GENERAL INFORMATION

#### A. Project Information

1. Project Name Kiline's Island Sewer System

2. Brief Project Description Long-Term Act 537 Plan O=Required X= Not Required

#### B. Client (Municipality) Information

| Municipality Name | County | City                     | Boro                     | Twp                      |
|-------------------|--------|--------------------------|--------------------------|--------------------------|
|                   |        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| Municipality Contact Individual - Last Name | First Name | MI | Suffix | Title |
|---------------------------------------------|------------|----|--------|-------|
|                                             |            |    |        |       |

| Additional Individual Last Name | First Name | MI | Suffix | Title |
|---------------------------------|------------|----|--------|-------|
|                                 |            |    |        |       |

| Municipality Mailing Address Line 1 | Mailing Address Line 2 |
|-------------------------------------|------------------------|
|                                     |                        |

| Address Last Line -- City | State | ZIP+4 |
|---------------------------|-------|-------|
|                           |       |       |

| Phone + Ext. | FAX (optional) | Email (optional) |
|--------------|----------------|------------------|
|              |                |                  |

#### C. Site Information

| Site (or Project) Name | (Municipal Name) Act 537 Plan |
|------------------------|-------------------------------|
|                        |                               |

| Site Location Line 1 | Site Location Line 2 |
|----------------------|----------------------|
|                      |                      |

#### D. Project Consultant Information

| Last Name | First Name | MI | Suffix |
|-----------|------------|----|--------|
|           |            |    |        |

| Title | Consulting Firm Name |
|-------|----------------------|
|       |                      |

| Mailing Address Line 1 | Mailing Address Line 2 |
|------------------------|------------------------|
|                        |                        |

| Address Last Line -- City | State | ZIP+4 | Country |
|---------------------------|-------|-------|---------|
|                           |       |       |         |

| Email | Phone + Ext. | FAX |
|-------|--------------|-----|
|       |              |     |

## PART 2 ADMINISTRATIVE COMPLETENESS CHECKLIST

| DEP<br>Use<br>Only | Indicate<br>Page #(s)<br>in Plan | In addition to the main body of the plan, the plan must include items one through eight listed below to be accepted for formal review by DEP. Incomplete plans may be <b>denied</b> unless the municipality is clearly requesting an advisory review.                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| _____              | <u>  0  </u>                     | 1. <b>Table of Contents</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| _____              | <u>  0  </u>                     | 2. <b>Plan Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| _____              | <u>  0  </u>                     | A. Identify the proposed service areas and major problems evaluated in the plan. (Reference - 25 Pa. Code §71.21(a)(7)(i)).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| _____              | <u>  0  </u>                     | B. Identify the alternative(s) chosen to solve the problems and serve the areas of need identified in the plan. Also, include any institutional arrangements necessary to implement the chosen alternative(s). (Reference - 25 Pa. Code §71.21(a)(7)(ii)).                                                                                                                                                                                                                                                                                                                                                                 |
| _____              | <u>  0  </u>                     | C. Present the estimated cost of implementing the proposed alternative (including the user fees) and the proposed funding method to be used. (Reference - 25 Pa. Code §71.21(a)(7)(ii)).                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| _____              | <u>  0  </u>                     | D. Identify the municipal commitments necessary to implement the Plan. (Reference - 25 Pa. Code §71.21(a)(7)(iii)).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| _____              | <u>  0  </u>                     | E. Provide a schedule of implementation for the project that identifies the <b>major</b> milestones with dates necessary to accomplish the project to the point of operational status. (Reference - 25 Pa. Code §71.21(a)(7)(iv)).                                                                                                                                                                                                                                                                                                                                                                                         |
| _____              | <u>  0  </u>                     | 3. <b>Municipal Adoption:</b> <i>Original</i> , signed and sealed Resolution of Adoption by the municipality which contains, at a minimum, alternatives chosen and a commitment to implement the Plan in accordance with the implementation schedule. (Reference - 25 Pa. Code §71.31(f)) Section V.F. of the Planning Guide.                                                                                                                                                                                                                                                                                              |
| _____              | <u>  0  </u>                     | 4. <b>Planning Commission / County Health Department Comments:</b> Evidence that the municipality has requested, reviewed and considered comments by appropriate official planning agencies of the municipality, planning agencies of the county, planning agencies with area wide jurisdiction (where applicable), and any existing county or joint county departments of health. (Reference - 25 Pa. Code §71.31(b)) Section V.E.1 of the Planning Guide.                                                                                                                                                                |
| _____              | <u>  0  </u>                     | 5. <b>Publication:</b> Proof of Public Notice which documents the proposed plan adoption, plan summary, and the establishment and conduct of a 30-day comment period. (Reference - 25 Pa. Code §71.31(c)) Section V.E.2 of the Planning Guide.                                                                                                                                                                                                                                                                                                                                                                             |
| _____              | <u>  0  </u>                     | 6. <b>Comments and Responses:</b> Copies of <b>all</b> written comments received and municipal response to <b>each</b> comment in relation to the proposed plan. (Reference - 25 Pa. Code §71.31(c)) Section V.E.2 of the Planning Guide.                                                                                                                                                                                                                                                                                                                                                                                  |
| _____              | <u>  0  </u>                     | 7. <b>Implementation Schedule:</b> A complete project implementation schedule with milestone dates specific for each existing and future area of need. Other activities in the project implementation schedule should be indicated as occurring a finite number of days from a major milestone. (Reference - 25 Pa. Code §71.31(d)) Section V.F. of the Planning Guide. Include dates for the future initiation of feasibility evaluations in the project's implementation schedule for areas proposing completion of sewage facilities for planning periods in excess of five years. (Reference - 25 Pa. Code §71.21(c)). |
| _____              | <u>  0  </u>                     | 8. <b>Consistency Documentation:</b> Documentation indicating that the appropriate agencies have received, reviewed and concurred with the method proposed to resolve identified inconsistencies within the proposed alternative and consistency requirements in 25 Pa. Code §71.21.(a)(5)(i-iii). (Reference - 25 Pa. Code §71.31(e)). Appendix B of the Planning Guide.                                                                                                                                                                                                                                                  |

## PART 3 GENERAL PLAN CONTENT CHECKLIST

| DEP<br>Use<br>Only | Indicate<br>Page #(s)<br>in Plan | Item Required                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| _____              | <u>0</u>                         | <b>I. Previous Wastewater Planning</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| _____              | <u>0</u>                         | A. Identify, describe and briefly analyze all past wastewater planning for its impact on the current planning effort:                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| _____              | <u>0</u>                         | 1. Previously undertaken under the Pennsylvania Sewage Facilities Act (Act). (Reference - Act 537, 35 P.S. §750.5(d)(1)).                                                                                                                                                                                                                                                                                                                                                                                                                              |
| _____              | <u>0</u>                         | 2. Has not been carried out according to an approved implementation schedule contained in the plans. (Reference - 25 Pa. Code §71.21(a)(5)(i)(A-D)). Section V.F of the Planning Guide.                                                                                                                                                                                                                                                                                                                                                                |
| _____              | <u>0</u>                         | 3. Is anticipated or planned by applicable sewer authorities or approved under a Chapter 94 Corrective Action Plan. (Reference - 25 Pa. Code §71.21(a)(5)(i)(A&B)). Section V.D. of the Planning Guide.                                                                                                                                                                                                                                                                                                                                                |
| _____              | <u>0</u>                         | 4. Through planning modules for new land development, planning “exemptions” and addenda. (Reference - 25 Pa. Code §71.21(a)(5)(i)(A)).                                                                                                                                                                                                                                                                                                                                                                                                                 |
| _____              | <u>0</u>                         | <b>II. Physical and Demographic Analysis utilizing written description and mapping</b><br>(All items listed below require maps, and all maps should show all current lots and structures and be of appropriate scale to clearly show significant information).                                                                                                                                                                                                                                                                                         |
| _____              | <u>0</u>                         | A. Identification of planning area(s), municipal boundaries, Sewer Authority/Management Agency service area boundaries. (Reference – 25 Pa. Code §71.21(a)(1)(i)).                                                                                                                                                                                                                                                                                                                                                                                     |
| _____              | <u>0</u>                         | B. Identification of physical characteristics (streams, lakes, impoundments, natural conveyance, channels, drainage basins in the planning area). (Reference - 25 Pa. Code §71.21(a)(1)(ii)).                                                                                                                                                                                                                                                                                                                                                          |
| _____              | <u>X</u>                         | C. Soils - Analysis with description by soil type and soils mapping for areas not presently served by sanitary sewer service. Show areas suitable for in-ground onlot systems, elevated sand mounds, individual residential spray irrigation systems (IRSIS), and areas unsuitable for soil dependent systems. (Reference - 25 Pa. Code §71.21(a)(1)(iii)). Show Prime Agricultural Soils and any locally protected agricultural soils. (Reference - 25 Pa. Code §71.21(a)(1)(iii)).                                                                   |
| _____              | <u>X</u>                         | D. Geologic Features - (1) Identification through analysis, (2) mapping and (3) their relation to existing or potential nitrate-nitrogen pollution and drinking water sources. Include areas where existing nitrate-nitrogen levels are in excess of 5 mg/L. (Reference - 25 Pa. Code §71.21(a)(1)(iii)).                                                                                                                                                                                                                                              |
| _____              | <u>X</u>                         | E. Topography - Depict areas with slopes that are suitable for conventional systems; slopes that are suitable for elevated sand mounds and slopes that are unsuitable for onlot systems. (Reference - 25 Pa. Code §71.21(a)(1)(ii)).                                                                                                                                                                                                                                                                                                                   |
| _____              | <u>0</u>                         | F. Potable Water Supplies - Identification through mapping, description and analysis. Include public water supply service areas and available public water supply capacity and aquifer yield for groundwater supplies. (Reference - 25 Pa. Code §71.21(a)(1)(vi)). Section V.C. of the Planning Guide.                                                                                                                                                                                                                                                 |
| _____              | <u>0</u>                         | G. Wetlands-Identify wetlands as defined in 25 Pa. Code Chapter 105 by description, analysis and mapping. Include National Wetland Inventory mapping and potential wetland areas per the United States Department of Agricultural (USDA) Natural Resources Conservation Service (NRCS) mapped hydric soils. Proposed collection, conveyance and treatment facilities and lines must be located and labeled, along with the identified wetlands, on the map. (Reference - 25 Pa. Code §71.21(a)(1)(v)). Appendix B, Section II.I of the Planning Guide. |



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| _____ | <u>Q</u> | <b>III. Existing Sewage Facilities in the Planning Area - Identifying the Existing Needs</b>                                                                                                                                                                                                                                                                                                                       |
|       |          | A. Identify, map and describe municipal and non-municipal, individual and community sewerage systems in the planning area including:                                                                                                                                                                                                                                                                               |
| _____ | <u>Q</u> | 1. Location, size and ownership of treatment facilities, main intercepting lines, pumping stations and force mains including their size, capacity, point of discharge. Also include the name of the receiving stream, drainage basin, and the facility's effluent discharge requirements. (Reference - 25 Pa. Code §71.21(a)(2)(i)(A)).                                                                            |
| _____ | <u>Q</u> | 2. A narrative and schematic diagram of the facility's basic treatment processes including the facility's National Pollutant Discharge Elimination System (NPDES) permitted capacity, and the Clean Streams Law permit number. (Reference - 25 Pa. Code §71.21(a)(2)(i)(A)).                                                                                                                                       |
| _____ | <u>Q</u> | 3. A description of problems with existing facilities (collection, conveyance and/or treatment), including existing or projected overload under 25 Pa. Code Chapter 94 (relating to municipal wasteload management) or violations of the NPDES permit, Clean Streams Law permit, or other permit, rule or regulation of DEP. (Reference - 25 Pa. Code §71.21(a)(2)(i)(B)).                                         |
| _____ | <u>Q</u> | 4. Details of scheduled or in-progress upgrading or expansion of treatment facilities and the anticipated completion date of the improvements. Discuss any remaining reserve capacity and the policy concerning the allocation of reserve capacity. Also discuss the compatibility of the rate of growth to existing and proposed wastewater treatment facilities. (Reference - 25 Pa. Code §71.21(a)(4)(i & ii)). |
| _____ | <u>Q</u> | 5. A detailed description of the municipality's operation and maintenance (O & M) requirements for small flow treatment facility systems, including the status of past and present compliance with these requirements and any other requirements relating to sewage management programs (SMPs). (Reference - 25 Pa. Code §71.21(a)(2)(i)(C)).                                                                      |
| _____ | <u>X</u> | 6. Disposal areas, if other than stream discharge, and any applicable groundwater limitations. (Reference - 25 Pa. Code §71.21(a)(4)(i & ii)).                                                                                                                                                                                                                                                                     |
| _____ | <u>X</u> | B. Using DEP's publication titled <i>Act 537 Sewage Disposal Needs Identification</i> (3800-BK-DEP1949), identify, map and describe areas that utilize individual and community onlot sewage disposal and, unpermitted collection and disposal systems ("wildcat" sewers, borehole disposal, etc.) and retaining tank systems in the planning area including:                                                      |
| _____ | <u>X</u> | 1. The types of onlot systems in use. (Reference - 25 Pa. Code §71.21(a)(2)(ii)(A)).                                                                                                                                                                                                                                                                                                                               |
| _____ | <u>X</u> | 2. A sanitary survey complete with description, map and tabulation of documented and potential public health, pollution, and operational problems (including malfunctioning systems) with the systems, including violations of local ordinances, the Act, the Clean Stream Law or regulations promulgated thereunder. (Reference - 25 Pa. Code §71.21(a)(2)(ii)(B)).                                               |
| _____ | <u>X</u> | 3. A comparison of the types of onlot sewage systems installed in an area with the types of systems which are appropriate for the area according to soil, geologic conditions, topographic limitations sewage flows, and 25 Pa. Code Chapter 73 (relating to standards for sewage disposal facilities). (Reference - 25 Pa. Code §71.21(a)(2)(ii)(C)).                                                             |
| _____ | <u>X</u> | 4. An individual water supply survey to identify possible contamination by malfunctioning onlot sewage disposal systems consistent with DEP's <i>Act 537 Sewage Disposal Needs Identification</i> publication. (Reference - 25 Pa. Code §71.21(a)(2)(ii)(B)).                                                                                                                                                      |

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| _____ | <u>X</u> | 5. Detailed description of O & M requirements of the municipality for individual and small volume community onlot systems, including the status of past and present compliance with these requirements and any other requirements relating to SMPs. (Reference - 25 Pa. Code §71.21(a)(2)(i)(C)).                                                                                                                                       |
| _____ | <u>O</u> | C. Identify wastewater sludge and septage generation, transport and disposal methods. Include this information in the sewage facilities alternative analysis including:                                                                                                                                                                                                                                                                 |
| _____ | <u>O</u> | 1. Location of sources of wastewater sludge or septage (Septic tanks, holding tanks, wastewater treatment facilities). (Reference – 25 Pa. Code §71.71).                                                                                                                                                                                                                                                                                |
| _____ | <u>O</u> | 2. Quantities of the types of sludges or septage generated. (Reference - 25 Pa. Code §71.71).                                                                                                                                                                                                                                                                                                                                           |
| _____ | <u>O</u> | 3. Present disposal methods, locations, capacities and transportation methods. (Reference - 25 Pa. Code §71.71).                                                                                                                                                                                                                                                                                                                        |
| _____ | <u>O</u> | <b>IV. Future Growth and Land Development</b>                                                                                                                                                                                                                                                                                                                                                                                           |
| _____ | <u>O</u> | A. Identify and briefly summarize all municipal and county planning documents adopted pursuant to the Pennsylvania Municipalities Planning Code (Act 247) including:                                                                                                                                                                                                                                                                    |
| _____ | <u>O</u> | 1. All land use plans and zoning maps that identify residential, commercial, industrial, agricultural, recreational and open space areas. (Reference - 25 Pa. Code §71.21(a)(3)(iv)).                                                                                                                                                                                                                                                   |
| _____ | <u>O</u> | 2. Zoning or subdivision regulations that establish lot sizes predicated on sewage disposal methods. (Reference – 25 Pa. Code §71.21(a)(3)(iv)).                                                                                                                                                                                                                                                                                        |
| _____ | <u>O</u> | 3. All limitations and plans related to floodplain and stormwater management and special protection (25 Pa. Code Chapter 93) areas. (Reference - 25 Pa. Code §71.21(a)(3)(iv)) Appendix B, Section II.F of the Planning Guide.                                                                                                                                                                                                          |
| _____ | <u>O</u> | B. Delineate and describe the following through map, text and analysis.                                                                                                                                                                                                                                                                                                                                                                 |
| _____ | <u>O</u> | 1. Areas with existing development or plotted subdivisions. Include the name, location, description, total number of equivalent dwelling units (EDUs) in development, total number of EDUs currently developed and total number of EDUs remaining to be developed (include time schedule for EDUs remaining to be developed). (Reference - 25 Pa. Code §71.21(a)(3)(i)).                                                                |
| _____ | <u>O</u> | 2. Land use designations established under the Pennsylvania Municipalities Planning Code (35 P.S. 10101-11202), including residential, commercial and industrial areas. (Reference - 25 Pa. Code §71.21(a)(3)(ii)). Include a comparison of proposed land use as allowed by zoning and existing sewage facility planning. (Reference - 25 Pa. Code §71.21(a)(3)(iv)).                                                                   |
| _____ | <u>O</u> | 3. Future growth areas with population and EDU projections for these areas using historical, current and future population figures and projections of the municipality. Discuss and evaluate discrepancies between local, county, state and federal projections as they relate to sewage facilities. (Reference - 25 Pa. Code §71.21(a)(1)(iv) and (a)(3)(iii)).                                                                        |
| _____ | <u>O</u> | 4. Zoning, and/or subdivision regulations; local, county or regional comprehensive plans; and existing plans of any other agency relating to the development, use and protection of land and water resources with special attention to: (Reference - 25 Pa. Code §71.21(a)(3)(iv)).<br>--public ground/surface water supplies<br>--recreational water use areas<br>--groundwater recharge areas<br>--industrial water use<br>--wetlands |

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| _____ | <u>Q</u> | 5. Sewage planning necessary to provide adequate wastewater treatment for 5 and 10-year future planning periods based on projected growth of existing and proposed wastewater collection and treatment facilities. (Reference - 25 Pa. Code §71.21(a)(3)(v)). |
| _____ | <u>Q</u> | <b>V. Identify Alternatives to Provide New or Improved Wastewater Disposal Facilities</b>                                                                                                                                                                     |
| _____ |          | A. Conventional collection, conveyance, treatment and discharge alternatives including:                                                                                                                                                                       |
| _____ | <u>Q</u> | 1. The potential for regional wastewater treatment. (Reference - 25 Pa. Code §71.21(a)(4)).                                                                                                                                                                   |
| _____ | <u>X</u> | 2. The potential for extension of existing municipal or non-municipal sewage facilities to areas in need of new or improved sewage facilities. (Reference - 25 Pa. Code §71.21(a)(4)(i)).                                                                     |
| _____ | <u>Q</u> | 3. The potential for the continued use of existing municipal or non-municipal sewage facilities through one or more of the following: (Reference - 25 Pa. Code §71.21(a)(4)(ii)).                                                                             |
| _____ | <u>Q</u> | a. Repair. (Reference - 25 Pa. Code §71.21(a)(4)(ii)(A)).                                                                                                                                                                                                     |
| _____ | <u>Q</u> | b. Upgrading. (Reference - 25 Pa. Code §71.21(a)(4)(ii)(B)).                                                                                                                                                                                                  |
| _____ | <u>Q</u> | c. Reduction of hydraulic or organic loading to existing facilities. (Reference - 25 Pa. Code §71.71).                                                                                                                                                        |
| _____ | <u>Q</u> | d. Improved O & M. (Reference - 25 Pa. Code §71.21(a)(4)(ii)(C)).                                                                                                                                                                                             |
| _____ | <u>Q</u> | e. Other applicable actions that will resolve or abate the identified problems. (Reference - 25 Pa. Code §71.21(a)(4)(ii)(D)).                                                                                                                                |
| _____ | <u>Q</u> | 4. Repair or replacement of existing collection and conveyance system components. (Reference - 25 Pa. Code §71.21(a)(4)(ii)(A)).                                                                                                                              |
| _____ | <u>Q</u> | 5. The need for construction of new community sewage systems including sewer systems and/or treatment facilities. (Reference - 25 Pa. Code §71.21(a)(4)(iii)).                                                                                                |
| _____ | <u>Q</u> | 6. Use of innovative/alternative methods of collection/conveyance to serve needs areas using existing wastewater treatment facilities. (Reference - 25 Pa. Code §71.21(a)(4)(ii)(B)).                                                                         |
| _____ | <u>X</u> | B. The use of individual sewage disposal systems including IRSIS systems based on:                                                                                                                                                                            |
| _____ | <u>X</u> | 1. Soil and slope suitability. (Reference - 25 Pa. Code §71.21(a)(2)(ii)(C)).                                                                                                                                                                                 |
| _____ | <u>X</u> | 2. Preliminary hydrogeologic evaluation. (Reference - 25 Pa. Code §71.21(a)(2)(ii)(C)).                                                                                                                                                                       |
| _____ | <u>X</u> | 3. The establishment of a SMP. (Reference - 25 Pa. Code §71.21(a)(4)(iv)). See also Part "F" below.                                                                                                                                                           |
| _____ | <u>X</u> | 4. The repair, replacement or upgrading of existing malfunctioning systems in areas suitable for onlot disposal considering: (Reference - 25 Pa. Code §71.21(a)(4)).                                                                                          |
| _____ | <u>X</u> | a. Existing technology and sizing requirements of 25 Pa. Code Chapter 73. (Reference - 25 Pa. Code §73.31-§73.72).                                                                                                                                            |
| _____ | <u>X</u> | b. Use of expanded absorption areas or alternating absorption areas. (Reference - 25 Pa. Code §73.16).                                                                                                                                                        |
| _____ | <u>X</u> | c. Use of water conservation devices. (Reference - 25 Pa. Code §71.73(b)(2)(iii)).                                                                                                                                                                            |

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| _____ | <u>X</u> | C. The use of small flow sewage treatment facilities or package treatment facilities to serve individual homes or clusters of homes with consideration of: (Reference - 25 Pa. Code §71.64(d)).                                       |
| _____ | <u>X</u> | 1. Treatment and discharge requirements. (Reference - 25 Pa. Code §71.64(d)).                                                                                                                                                         |
| _____ | <u>X</u> | 2. Soil suitability. (Reference - 25 Pa. Code §71.64(c)(1)).                                                                                                                                                                          |
| _____ | <u>X</u> | 3. Preliminary hydrogeologic evaluation. (Reference - 25 Pa. Code §71.64(c)(2)).                                                                                                                                                      |
| _____ | <u>X</u> | 4. Municipal, Local Agency or other controls over O & M requirements through a SMP. (Reference - 25 Pa. Code §71.64(d)). See Part "F" below.                                                                                          |
| _____ | <u>X</u> | D. The use of community land disposal alternatives including:                                                                                                                                                                         |
| _____ | <u>X</u> | 1. Soil and site suitability. (Reference - 25 Pa. Code §71.21(a)(2)(ii)(C)).                                                                                                                                                          |
| _____ | <u>X</u> | 2. Preliminary hydrogeologic evaluation. (Reference - 25 Pa. Code §71.21(a)(2)(ii)(C)).                                                                                                                                               |
| _____ | <u>X</u> | 3. Municipality, Local Agency or other controls over O & M requirements through a SMP. (Reference - 25 Pa. Code §71.21(a)(2)(ii)(C)). See Part "F" below.                                                                             |
| _____ | <u>X</u> | 4. The rehabilitation or replacement of existing malfunctioning community land disposal systems. (See Part "V", B, 4, a, b, c above). See also Part "F" below.                                                                        |
| _____ | <u>X</u> | E. The use of retaining tank alternatives on a temporary or permanent basis including: (Reference - 25 Pa. Code §71.21(a)(4)).                                                                                                        |
| _____ | <u>X</u> | 1. Commercial, residential and industrial use. (Reference - 25 Pa. Code §71.63(e)).                                                                                                                                                   |
| _____ | <u>X</u> | 2. Designated conveyance facilities (pumper trucks). (Reference - 25 Pa. Code §71.63(b)(2)).                                                                                                                                          |
| _____ | <u>X</u> | 3. Designated treatment facilities or disposal site. (Reference - 25 Pa. Code §71.63(b)(2)).                                                                                                                                          |
| _____ | <u>X</u> | 4. Implementation of a retaining tank ordinance by the municipality. (Reference - 25 Pa. Code §71.63(c)(3)). See Part "F" below.                                                                                                      |
| _____ | <u>X</u> | 5. Financial guarantees when retaining tanks are used as an interim sewage disposal measure. (Reference - 25 Pa. Code §71.63(c)(2)).                                                                                                  |
| _____ | <u>X</u> | F. SMPs to assure the future O & M of existing and proposed sewage facilities through:                                                                                                                                                |
| _____ | <u>X</u> | 1. Municipal ownership or control over the O & M of individual onlot sewage disposal systems, small flow treatment facilities, or other traditionally non-municipal treatment facilities. (Reference - 25 Pa. Code §71.21(a)(4)(iv)). |
| _____ | <u>X</u> | 2. Required inspection of sewage disposal systems on a schedule established by the municipality. (Reference - 25 Pa. Code §71.73(b)(1)).                                                                                              |
| _____ | <u>X</u> | 3. Required maintenance of sewage disposal systems including septic and aerobic treatment tanks and other system components on a schedule established by the municipality. (Reference - 25 Pa. Code §71.73(b)(2)).                    |
| _____ | <u>X</u> | 4. Repair, replacement or upgrading of malfunctioning onlot sewage systems. (Reference - 25 Pa. Code §71.21(a)(4)(iv) and §71.73(b)(5)) through:                                                                                      |
| _____ | <u>X</u> | a. Aggressive pro-active enforcement of ordinances that require O & M and prohibit malfunctioning systems. (Reference - 25 Pa. Code §71.73(b)(5)).                                                                                    |
| _____ | <u>X</u> | b. Public education programs to encourage proper O & M and repair of sewage disposal systems.                                                                                                                                         |
| _____ | <u>X</u> | 5. Establishment of joint municipal SMPs. (Reference - 25 Pa. Code                                                                                                                                                                    |

§71.73(b)(8)).

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| _____ | <u>X</u> | 6. Requirements for bonding, escrow accounts, management agencies or associations to assure O & M for non-municipal facilities. (Reference - 25 Pa. Code §71.71).                                                                  |
| _____ | <u>O</u> | G. Non-structural comprehensive planning alternatives that can be undertaken to assist in meeting existing and future sewage disposal needs including: (Reference - 25 Pa. Code §71.21(a)(4)).                                     |
| _____ | <u>O</u> | 1. Modification of existing comprehensive plans involving:                                                                                                                                                                         |
| _____ | <u>O</u> | a. Land use designations. (Reference - 25 Pa. Code §71.21(a)(4)).                                                                                                                                                                  |
| _____ | <u>O</u> | b. Densities. (Reference - 25 Pa. Code §71.21(a)(4)).                                                                                                                                                                              |
| _____ | <u>O</u> | c. Municipal ordinances and regulations. (Reference - 25 Pa. Code §71.21(a)(4)).                                                                                                                                                   |
| _____ | <u>O</u> | d. Improved enforcement. (Reference - 25 Pa. Code §71.21(a)(4)).                                                                                                                                                                   |
| _____ | <u>O</u> | e. Protection of drinking water sources. (Reference - 25 Pa. Code §71.21(a)(4)).                                                                                                                                                   |
| _____ | <u>O</u> | 2. Consideration of a local comprehensive plan to assist in producing sound economic and consistent land development. (Reference - 25 Pa. Code §71.21(a)(4)).                                                                      |
| _____ | <u>O</u> | 3. Alternatives for creating or changing municipal subdivision regulations to assure long-term use of on-site sewage disposal that consider lot sizes and protection of replacement areas. (Reference - 25 Pa. Code §71.21(a)(4)). |
| _____ | <u>O</u> | 4. Evaluation of existing local agency programs and the need for technical or administrative training. (Reference - 25 Pa. Code §71.21(a)(4)).                                                                                     |
| _____ | <u>O</u> | H. A no-action alternative which includes discussion of both short-term and long-term impacts on: (Reference - 25 Pa. Code §71.21(a)(4)).                                                                                          |
| _____ | <u>O</u> | 1. Water quality/public health. (Reference - 25 Pa. Code §71.21(a)(4)).                                                                                                                                                            |
| _____ | <u>O</u> | 2. Growth potential (residential, commercial, industrial). (Reference - 25 Pa. Code §71.21(a)(4)).                                                                                                                                 |
| _____ | <u>O</u> | 3. Community economic conditions. (Reference - 25 Pa. Code §71.21(a)(4)).                                                                                                                                                          |
| _____ | <u>O</u> | 4. Recreational opportunities. (Reference - 25 Pa. Code §71.21(a)(4)).                                                                                                                                                             |
| _____ | <u>O</u> | 5. Drinking water sources. (Reference - 25 Pa. Code §71.21(a)(4)).                                                                                                                                                                 |
| _____ | <u>O</u> | 6. Other environmental concerns. (Reference - 25 Pa. Code §71.21(a)(4)).                                                                                                                                                           |

\_\_\_\_\_ O **VI. Evaluation of Alternatives**

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| _____ | <u>O</u> | A. Technically feasible alternatives identified in Section V of this checklist must be evaluated for consistency with respect to the following: (Reference - 25 Pa. Code §71.21(a)(5)(i)).                                                                                                                                                                                                                                              |
| _____ | <u>O</u> | 1. Applicable plans developed and approved under <b>Sections 4 and 5 of the Clean Streams Law or Section 208 of the Clean Water Act</b> (33 U.S.C.A. 1288). (Reference - 25 Pa. Code §71.21(a)(5)(i)(A)). Appendix B, Section II.A of the Planning Guide.                                                                                                                                                                               |
| _____ | <u>O</u> | 2. Municipal wasteload management <b>Corrective Action Plans or Annual Reports</b> developed under 25 Pa. Code Chapter 94. (Reference - 25 Pa. Code §71.21(a)(5)(i)(B)). The municipality's recent Wasteload Management (25 Pa. Code Chapter 94) Reports should be examined to determine if the proposed alternative is consistent with the recommendations and findings of the report. Appendix B, Section II.B of the Planning Guide. |
| _____ | <u>O</u> | 3. Plans developed under <b>Title II of the Clean Water Act</b> (33 U.S.C.A.                                                                                                                                                                                                                                                                                                                                                            |

1281-1299) or **Titles II and VI of the Water Quality Act of 1987** (33 U.S.C.A. 1251-1376). (Reference - 25 *Pa. Code* §71.21(a)(5)(i)(C)). Appendix B, Section II.E of the Planning Guide.

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| _____ | <u>O</u> | 4. <b>Comprehensive plans</b> developed under the Pennsylvania Municipalities Planning Code. (Reference - 25 <i>Pa. Code</i> §71.21(a)(5)(i)(D)). The municipality's comprehensive plan must be examined to assure that the proposed wastewater disposal alternative is consistent with land use and all other requirements stated in the comprehensive plan. Appendix B, Section II.D of the Planning Guide.                                                                                                                                                                                                                                                                                                                        |
| _____ | <u>O</u> | 5. <b>Antidegradation requirements</b> as contained in 25 <i>Pa. Code</i> Chapters 93, 95 and 102 (relating to water quality standards, wastewater treatment requirements and erosion control) and the Clean Water Act. (Reference - 25 <i>Pa. Code</i> §71.21(a)(5)(i)(E)). Appendix B, Section II.F of the Planning Guide.                                                                                                                                                                                                                                                                                                                                                                                                         |
| _____ | <u>O</u> | 6. <b>State Water Plans</b> developed under the Water Resources Planning Act (42 U.S.C.A. 1962-1962 d-18). (Reference - 25 <i>Pa. Code</i> §71.21(a)(5)(i)(F)). Appendix B, Section II.C of the Planning Guide.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| _____ | <u>O</u> | 7. <b>Pennsylvania Prime Agricultural Land Policy</b> contained in Title 4 of the Pennsylvania Code, Chapter 7, Subchapter W. Provide narrative on local municipal policy and an overlay map on prime agricultural soils. (Reference - 25 <i>Pa. Code</i> §71.21(a)(5)(i)(G)). Appendix B, Section II.G of the Planning Guide.                                                                                                                                                                                                                                                                                                                                                                                                       |
| _____ | <u>O</u> | 8. <b>County Stormwater Management Plans</b> approved by DEP under the Storm Water Management Act (32 P.S. 680.1-680.17). (Reference - 25 <i>Pa. Code</i> §71.21(a)(5)(i)(H)). Conflicts created by the implementation of the proposed wastewater alternative and the existing recommendations for the management of stormwater in the county Stormwater Management Plan must be evaluated and mitigated. If no plan exists, no conflict exists. Appendix B, Section II.H of the Planning Guide.                                                                                                                                                                                                                                     |
| _____ | <u>O</u> | 9. <b>Wetland Protection.</b> Using wetland mapping developed under Checklist Section II.G, identify and discuss mitigative measures including the need to obtain permits for any encroachments on wetlands from the construction or operation of any proposed wastewater facilities. (Reference - 25 <i>Pa. Code</i> §71.21(a)(5)(i)(I)) Appendix B, Section II.I of the Planning Guide.                                                                                                                                                                                                                                                                                                                                            |
| _____ | <u>O</u> | 10. <b>Protection of rare, endangered or threatened plant and animal species</b> as identified by the Pennsylvania Natural Diversity Inventory (PNDI). (Reference - 25 <i>Pa. Code</i> §71.21(a)(5)(i)(J)). Provide DEP with a copy of the completed <i>PNDI Manual Project Submission Form</i> . Also provide a copy of the response letters from the 4 jurisdictional agencies regarding the findings of the PNDI search. Appendix B, Section II.J of the Planning Guide.                                                                                                                                                                                                                                                          |
| _____ | <u>O</u> | 11. <b>Historical and archaeological resource protection</b> under P.C.S. Title 37, Section 507 relating to cooperation by public officials with the Pennsylvania Historical and Museum Commission (PHMC). (Reference - 25 <i>Pa. Code</i> §71.21(a)(5)(i)(K)). Provide DEP with a completed copy of a <i>Cultural Resource Notice</i> and a return receipt for its submission to PHMC. Provide a copy of the response letter or review stamp from the Bureau of Historic Preservation (BHP) indicating the project will have no effect on, or that there may be potential impacts on, known archaeological and historical sites and any avoidance and mitigation measures required. Appendix B, Section II.K of the Planning Guide. |

- |       |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| _____ | <u>Q</u> | B. Provide for the resolution of any inconsistencies in any of the points identified in Section VI.A. of this checklist by submitting a letter from the appropriate agency stating that the agency has received, reviewed and concurred with the resolution of identified inconsistencies. (Reference - 25 Pa. Code §71.21(a)(5)(ii)). Appendix B of the Planning Guide.                                                                                                                                                                                                            |
| _____ | <u>Q</u> | C. Evaluate alternatives identified in Section V of this checklist with respect to applicable water quality standards, effluent limitations or other technical, legislative or legal requirements. (Reference - 25 Pa. Code §71.21(a)(5)(iii)).                                                                                                                                                                                                                                                                                                                                     |
| _____ | <u>Q</u> | D. Provide cost estimates using present worth analysis for construction, financing, ongoing administration, O & M and user fees for alternatives identified in Section V of this checklist. Estimates shall be limited to areas identified in the plan as needing improved sewage facilities within 5 years from the date of plan submission. (Reference - 25 Pa. Code §71.21(a)(5)(iv)).                                                                                                                                                                                           |
| _____ | <u>Q</u> | E. Provide an analysis of the funding methods available to finance the proposed alternatives evaluated in Section V of this checklist. Also provide documentation to demonstrate which alternative and financing scheme combination is the most cost-effective; and a contingency financial plan to be used if the preferred method of financing cannot be implemented. The funding analysis shall be limited to areas identified in the plan as needing improved sewage facilities within 5 years from the date of the plan submission. (Reference - 25 Pa. Code §71.21(a)(5)(v)). |
| _____ | <u>Q</u> | F. Analyze the need for immediate or phased implementation of each alternative proposed in Section V of this checklist including: (Reference - 25 Pa. Code §71.21(a)(5)(vi)).                                                                                                                                                                                                                                                                                                                                                                                                       |
| _____ | <u>Q</u> | 1. A description of any activities necessary to abate critical public health hazards pending completion of sewage facilities or implementation of SMPs. (Reference - 25 Pa. Code §71.21(a)(5)(vi)(A)).                                                                                                                                                                                                                                                                                                                                                                              |
| _____ | <u>Q</u> | 2. A description of the advantages, if any, in phasing construction of the facilities or implementation of a SMP justifying time schedules for each phase. (Reference - 25 Pa. Code §71.21(a)(5)(vi)(B)).                                                                                                                                                                                                                                                                                                                                                                           |
| _____ | <u>Q</u> | G. Evaluate administrative organizations and legal authority necessary for plan implementation. (Reference - 25 Pa. Code §71.21(a)(5)(vi)(D)).                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| _____ | <u>Q</u> | <b>VII. Institutional Evaluation</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| _____ | <u>Q</u> | A. Provide an analysis of all existing wastewater treatment authorities, their past actions and present performance including:                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| _____ | <u>Q</u> | 1. Financial and debt status. (Reference - 25 Pa. Code §71.61(d)(2)).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| _____ | <u>Q</u> | 2. Available staff and administrative resources. (Reference - 25 Pa. Code §71.61(d)(2)).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| _____ | <u>Q</u> | 3. Existing legal authority to:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| _____ | <u>Q</u> | a. Implement wastewater planning recommendations. (Reference - 25 Pa. Code §71.61(d)(2)).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| _____ | <u>Q</u> | b. Implement system-wide O & M activities. (Reference - 25 Pa. Code §71.61(d)(2)).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| _____ | <u>Q</u> | c. Set user fees and take purchasing actions. (Reference - 25 Pa. Code §71.61(d)(2)).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| _____ | <u>Q</u> | d. Take enforcement actions against ordinance violators. (Reference - 25 Pa. Code §71.61(d)(2)).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| _____ | <u>Q</u> | e. Negotiate agreements with other parties. (Reference - 25 Pa. Code §71.61(d)(2)).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

- \_\_\_\_\_   O   f. Raise capital for construction and O & M of facilities. (Reference - 25 Pa. Code §71.61(d)(2)).
- \_\_\_\_\_   O   B. Provide an analysis and description of the various institutional alternatives necessary to implement the proposed technical alternatives including:
- \_\_\_\_\_   O   1. Need for new municipal departments or municipal authorities. (Reference - 25 Pa. Code §71.61(d)(2)).
- \_\_\_\_\_   O   2. Functions of existing and proposed organizations (sewer authorities, onlot maintenance agencies, etc.). (Reference - 25 Pa. Code §71.61(d)(2)).
- \_\_\_\_\_   O   3. Cost of administration, implementability, and the capability of the authority/agency to react to future needs. (Reference - 25 Pa. Code §71.61(d)(2)).
- \_\_\_\_\_   O   C. Describe all necessary administrative and legal activities to be completed and adopted to ensure the implementation of the recommended alternative including:
- \_\_\_\_\_   O   1. Incorporation of authorities or agencies. (Reference - 25 Pa. Code §71.61(d)(2)).
- \_\_\_\_\_   O   2. Development of all required ordinances, regulations, standards and inter-municipal agreements. (Reference - 25 Pa. Code §71.61(d)(2)).
- \_\_\_\_\_   O   3. Description of activities to provide rights-of-way, easements and land transfers. (Reference - 25 Pa. Code §71.61(d)(2)).
- \_\_\_\_\_   O   4. Adoption of other municipal sewage facilities plans. (Reference - 25 Pa. Code §71.61(d)(2)).
- \_\_\_\_\_   O   5. Any other legal documents. (Reference - 25 Pa. Code §71.61(d)(2)).
- \_\_\_\_\_   O   6. Dates or timeframes for items 1-5 above on the project's implementation schedule.
- \_\_\_\_\_   O   D. Identify the proposed institutional alternative for implementing the chosen technical wastewater disposal alternative. Provide justification for choosing the specific institutional alternative considering administrative issues, organizational needs and enabling legal authority. (Reference - 25 Pa. Code §71.61(d)(2)).
- \_\_\_\_\_   O   **VIII. Implementation Schedule and Justification for Selected Technical & Institutional Alternatives**
- \_\_\_\_\_   O   A. Identify the technical wastewater disposal alternative which best meets the wastewater treatment needs of each study area of the municipality. Justify the choice by providing documentation which shows that it is the best alternative based on:
- \_\_\_\_\_   O   1. Existing wastewater disposal needs. (Reference - 25 Pa. Code §71.21(a)(6)).
- \_\_\_\_\_   O   2. Future wastewater disposal needs. (5 and 10 year growth areas). (Reference - 25 Pa. Code §71.21(a)(6)).
- \_\_\_\_\_   O   3. O & M considerations. (Reference - 25 Pa. Code §71.21(a)(6)).
- \_\_\_\_\_   O   4. Cost-effectiveness. (Reference - 25 Pa. Code §71.21(a)(6)).
- \_\_\_\_\_   O   5. Available management and administrative systems. (Reference - 25 Pa. Code §71.21(a)(6)).
- \_\_\_\_\_   O   6. Available financing methods. (Reference - 25 Pa. Code §71.21(a)(6)).
- \_\_\_\_\_   O   7. Environmental soundness and compliance with natural resource planning and preservation programs. (Reference - 25 Pa. Code §71.21(a)(6)).



- |       |          |                                                                                                                                                                                                                         |
|-------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| _____ | <u>Q</u> | B. Designate and describe the capital financing plan chosen to implement the selected alternative(s). Designate and describe the chosen back-up financing plan. (Reference - 25 Pa. Code §71.21(a)(6))                  |
| _____ | <u>Q</u> | C. Designate and describe the implementation schedule for the recommended alternative, including justification for any proposed phasing of construction or implementation of a SMP. (Reference – 25 Pa. Code §71.31(d)) |

- |       |          |
|-------|----------|
| _____ | <u>X</u> |
| _____ | <u>X</u> |

**IX. Environmental Report (ER) generated from the UER Process**

- A. Complete an ER as required by the UER process and as described in the DEP Technical Guidance (381-5511-111). Include this document as “Appendix A” to the Act 537 Plan Update Revision. ***Note: An ER is required only for Wastewater projects proposing funding through any of the funding sources identified in the UER.***

## ADDITIONAL REQUIREMENTS FOR PENNVEST PROJECTS

Municipalities that propose to implement their official sewage facilities plan updates with PENNVEST funds must meet 6 additional requirements to be eligible for such funds. See *A Guide for Preparing Act 537 Update Revisions* (362-0300-003), Appendix N for greater detail or contact the DEP regional office serving your county listed in Appendix J of the same publication.

| DEP<br>Use<br>Only | Indicate<br>Page #(s)<br>in Plan | Item Required                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| _____              | _____                            | 1. Environmental Impact Assessment. (Planning Phase)<br>The UER replaces the Environmental Impact Assessment that was a previous requirement for PENNVEST projects.                                                                                                                                                                                                                                                                                                                                                                                           |
| _____              | _____                            | 2. Cost Effectiveness (Planning Phase)<br>The cost-effectiveness analysis should be a present-worth (or equivalent uniform annual) cost evaluation of the principle alternatives using the interest rate that is published annually by the Water Resources Council. Normally, for PENNVEST projects the applicant should select the most cost-effective alternative based upon the above analysis. Once the alternative has been selected the user fee estimates should be developed based upon interest rates and loan terms of the selected funding method. |
| _____              |                                  | 3. Second Opinion Project Review. (Design Phase)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| _____              |                                  | 4. Minority Business Enterprise/Women's Business Enterprise (Construction Phase)                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| _____              |                                  | 5. Civil Rights. (Construction Phase)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| _____              |                                  | 6. Initiation of Operation/Performance Certification. (Post-construction Phase)                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

## I/A TECHNOLOGIES

### PARTIAL LISTING OF INNOVATIVE AND ALTERNATIVE TECHNOLOGIES

#### TREATMENT TECHNOLOGIES

Aquaculture  
Aquifer Recharge  
Biological Aerated Filters  
Constructed Wetlands  
Direct Reuse (NON-POTABLE)  
Horticulture  
Overland Flow  
Rapid Infiltration  
Silviculture  
Microscreens  
Controlled Release Lagoons  
Swirl Concentrator

#### SLUDGE TREATMENT TECHNOLOGIES

Aerated Static Pile Composting  
Enclosed Mechanical Composting (In vessel)  
Revegetation of Disturbed Land  
Aerated Windrow Composting

#### ENERGY RECOVERY TECHNOLOGIES

Anaerobic Digestion with more than 90 percent  
Methane Recovery  
Cogeneration of Electricity  
Self-Sustaining Incineration

#### INDIVIDUAL & SYSTEM-WIDE COLLECTION TECHNOLOGIES

Cluster Systems  
Septage Treatment  
Small Diameter Gravity Sewers  
Step Pressure Sewers  
Vacuum Sewers  
Variable Grade Sewers  
Septic Tank Effluent Pump with  
Pressure Sewers

## CAPITAL PROJECT AUTHORIZATION

|                     |                                                                                             |                                     |                                  |
|---------------------|---------------------------------------------------------------------------------------------|-------------------------------------|----------------------------------|
| PROJECT NO.:        | AD-S-12                                                                                     | BUDGET FUND:                        | Allentown Div\Wastewater\Capital |
| PROJECT TITLE:      | Kline's Island Sewer System: Final (Long-Term)<br>Act 537 Plan Preparation – Planning Phase |                                     | PROJECT TYPE:                    |
| THIS AUTHORIZATION: | \$234,705                                                                                   | <input type="checkbox"/>            | Construction                     |
| TO DATE (W/ ABOVE)  | \$326,090                                                                                   | <input checked="" type="checkbox"/> | Engineering Study                |
|                     |                                                                                             | <input type="checkbox"/>            | Equipment Purchase               |
|                     |                                                                                             | <input type="checkbox"/>            | Amendment                        |

### DESCRIPTION AND BENEFITS:

ARRO will develop the Final Act 537 Plan (the "Plan") for the Kline's Island Sewer System (KISS). The Plan submission will include the 2020 and 2021-2025 planning module projections from the approved Interim Act 537 Plan. The Plan will also include planning module projections for the 2026-2050 planning horizon for all 15 municipalities connected to the KISS system. The Plan will ultimately outline construction projects and other related items that the City of Allentown, Lehigh County Authority, and all tributary municipalities will execute during the 2026-2035 implementation phase.

**Prior Authorizations:** After DEP officially placed the entire KISS Region under Act 537 Planning in late 2019, ARRO was retained to prepare the Interim Act 537 Plan. The Interim Act 537 Plan was officially approved by DEP on June 25, 2021.

**This Authorization:** Final Act 537 Plan Preparation by the DEP mandated deadline of March 2025. See attached Board Memo for further project details.

### Authorization Status:

| Requested This Authorization                 |                  |
|----------------------------------------------|------------------|
| <i>Design Phase</i>                          |                  |
| Staff                                        | \$30,000         |
| Contractor                                   | \$0              |
| Engineering Consultant                       | \$184,705        |
| Contingency                                  | \$20,000         |
| <b>Total This Authorization</b>              | <b>\$234,705</b> |
|                                              |                  |
| Prior Authorizations (2019-2020)             | \$91,385         |
| <b>Subtotal (Prior + This Authorization)</b> | <b>\$326,090</b> |
| <i>Future Authorizations (none)</i>          | <i>\$0</i>       |

### REVIEW AND APPROVALS:

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



**Lehigh County Authority**

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

**PROFESSIONAL SERVICES AUTHORIZATION  
AMENDMENT NO. 3**

**Professional:** ARRO CONSULTING, INC.  
108 West Airport Road  
Lititz, PA 17543

**Date:** February 28, 2022

**Requested By:** Phil DePoe

**Approvals**

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

**Chief Executive**

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

**Allentown Division: Kline's Island Sewer System Final (Long-Term) Act 537 Plan Preparation – Planning Phase**

ARRO will develop the Final Act 537 Plan (the "Plan") for the Kline's Island Sewer System (KISS). The Plan submission will include the 2020 and 2021-2025 planning module projections from the approved Interim Act 537 Plan. The Plan will also include planning module projections for the 2026-2050 planning horizon for all 15 municipalities connected to the KISS system. The Plan will ultimately outline construction projects and other related items that the City of Allentown, Lehigh County Authority, and all tributary municipalities will execute during the 2026-2035 implementation phase. The services of the proposal include, but are not limited to, the following:

| <b>Professional Services <sup>(1)</sup></b>                                        |
|------------------------------------------------------------------------------------|
| 1. Attend various meetings with DEP, LCA, KISS Signatories                         |
| 2. Develop a Task Activity Report and submit to DEP                                |
| 3. Coordinate with various consultants to incorporate alternatives and solutions   |
| 4. Develop a draft Plan following the DEP 537 checklist                            |
| 5. Address all public comments and KISS municipal planning commissions             |
| 6. Assemble and distribute hard copies of the final Plan to each KISS municipality |
| 7. Address and incorporate comments and submit final Plan to PA DEP                |

*(1) Planning phase only*

**Prior Approvals:** \$91,385 (*Interim 537 Plan*)

**This Approval:** \$184,705 (*see attached proposal*)

**New Amended Amount (not to be exceeded without further authorization):** \$276,090

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

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**(For Authority Use Only)**

**Authorization Completion:**

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

**LEHIGH COUNTY AUTHORITY  
FINANCIAL STATEMENTS  
DECEMBER 2021**

LEHIGH COUNTY AUTHORITY  
FINANCIAL STATEMENTS - SUMMARY  
For the Period Ended December 31, 2021

|                             | Consolidated Financial Statements |             |             |           |             |              |             |             |           |             |             |             |             |             |             |
|-----------------------------|-----------------------------------|-------------|-------------|-----------|-------------|--------------|-------------|-------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|
|                             | Month                             |             |             |           |             | Year To Date |             |             |           |             | FULL YEAR   |             |             |             |             |
|                             | Actual                            | Q4 FC       | Prior Year  | FC Var    | PY Var      | Actual       | Q4 FC       | Prior Year  | FC Var    | PY Var      | Actual      | Budget      | Prior Year  | Bud Var     | PY Var      |
| Income Statement            |                                   |             |             |           |             |              |             |             |           |             |             |             |             |             |             |
| Suburban Water              | (252,109)                         | (324,382)   | (1,082,328) | 72,273    | 830,219     | 1,989,245    | 1,502,211   | 456,932     | 487,034   | 1,532,313   | 1,989,245   | 183,548     | 456,932     | 1,805,697   | 1,532,313   |
| Suburban Wastewater         | (410,988)                         | (349,289)   | (2,045,803) | (61,698)  | 1,634,816   | (406,566)    | (525,254)   | 2,724,420   | 118,688   | (3,130,986) | (406,566)   | 1,175,879   | 2,724,420   | (1,582,445) | (3,130,986) |
| City Division               | (1,962,207)                       | (2,887,066) | 1,579,133   | 924,858   | (3,541,340) | 3,957,634    | 3,008,304   | (4,289,351) | 949,330   | 8,246,985   | 3,957,634   | 865,692     | (4,289,351) | 3,091,942   | 8,246,985   |
| Total LCA                   | (2,625,304)                       | (3,560,737) | (1,548,998) | 935,433   | (1,076,306) | 5,540,313    | 3,985,261   | (1,107,999) | 1,555,051 | 6,648,312   | 5,540,313   | 2,225,119   | (1,107,999) | 3,315,194   | 6,648,312   |
| Cash Flow Statement         |                                   |             |             |           |             |              |             |             |           |             |             |             |             |             |             |
| Suburban Water              | (833,011)                         | (626,813)   | (872,036)   | (206,198) | 39,025      | (2,775,261)  | (3,179,748) | (3,715,921) | 404,487   | 940,660     | (2,775,261) | (3,490,153) | (3,715,921) | 714,892     | 940,660     |
| Suburban Wastewater         | (1,992,712)                       | (1,694,366) | 1,430,419   | (298,346) | (3,423,131) | (951,737)    | (645,994)   | 398,088     | (305,743) | (1,349,826) | (951,737)   | 2,321,828   | 398,089     | (3,273,565) | (1,349,826) |
| City Division               | (5,041,725)                       | (5,916,004) | (1,604,924) | 874,279   | (3,436,800) | 9,094,924    | 8,156,632   | 2,036,187   | 938,292   | 7,058,737   | 9,094,924   | 4,663,547   | 2,036,187   | 4,431,377   | 7,058,737   |
| Total LCA                   | (7,867,448)                       | (8,237,182) | (1,046,541) | 369,735   | (6,820,906) | 5,367,926    | 4,330,890   | (1,281,646) | 1,037,036 | 6,649,572   | 5,367,926   | 3,495,222   | (1,281,645) | 1,872,704   | 6,649,571   |
| Debt Service Coverage Ratio |                                   |             |             |           |             |              |             |             |           |             |             |             |             |             |             |
| Suburban Water              | 0.52                              | (0.05)      | (1.38)      | 0.57      | 1.89        | 3.77         | 3.46        | 1.26        | 0.31      | 2.51        | 3.77        | 1.20        | 1.26        | 2.57        | 2.51        |
| Suburban Wastewater         | 3.51                              | 4.23        | (5.29)      | (0.72)    | 8.80        | 6.50         | 6.31        | 12.54       | 0.19      | (6.04)      | 6.50        | 8.17        | 12.54       | (1.67)      | (6.04)      |
| City Division               | 0.05                              | (0.57)      | 3.48        | 0.62      | (3.43)      | 1.80         | 1.74        | 1.61        | 0.05      | 0.19        | 1.80        | 1.62        | 1.43        | 0.17        | 0.37        |

**LEHIGH COUNTY AUTHORITY**  
**CONSOLIDATED FINANCIAL STATEMENTS**  
**For the Period Ended December 31, 2021**

| Consolidated Financial Statements                                    |                    |                    |                    |                    |                    |                    |                     |                     |                    |                    |                     |                     |                    |                    |                     |                     |
|----------------------------------------------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|--------------------|--------------------|---------------------|---------------------|--------------------|--------------------|---------------------|---------------------|
| STATEMENTS OF ACTIVITIES                                             | Month              |                    |                    |                    | Year To Date       |                    |                     |                     | FULL YEAR ACTUALS  |                    |                     |                     | Full Year Budget   |                    |                     |                     |
|                                                                      | Sub W              | Sub WW             | City               | LCA                | Sub W              | Sub WW             | City                | LCA                 | Sub W              | Sub WW             | City                | LCA                 | Sub W              | Sub WW             | City                | LCA                 |
| <b>Operating Revenues:</b>                                           |                    |                    |                    |                    |                    |                    |                     |                     |                    |                    |                     |                     |                    |                    |                     |                     |
| User Charges                                                         | 926,468            | 1,356,491          | 3,970,829          | 6,253,787          | 12,304,827         | 15,883,943         | 42,633,310          | 70,822,080          | 12,304,827         | 15,883,943         | 42,633,310          | 70,822,080          | 11,799,441         | 19,166,369         | 41,996,514          | 72,962,324          |
| Connection & System Charges                                          | 65,420             | 60,084             | 148,401            | 273,905            | 1,534,752          | 1,054,144          | 3,499,567           | 6,088,463           | 1,534,752          | 1,054,144          | 3,499,567           | 6,088,463           | 912,039            | 865,588            | 3,947,981           | 5,725,607           |
| Other Miscellaneous Revenues                                         | 2,520              | 105                | 7,630              | 10,255             | 56,549             | 45,691             | 113,357             | 215,597             | 56,549             | 45,691             | 113,357             | 215,597             | 30,944             | 628                | 59,249              | 90,821              |
| <b>Total Operating Revenues</b>                                      | <b>994,408</b>     | <b>1,416,680</b>   | <b>4,126,860</b>   | <b>6,537,948</b>   | <b>13,896,128</b>  | <b>16,983,778</b>  | <b>46,246,235</b>   | <b>77,126,140</b>   | <b>13,896,128</b>  | <b>16,983,778</b>  | <b>46,246,235</b>   | <b>77,126,140</b>   | <b>12,742,423</b>  | <b>20,032,585</b>  | <b>46,003,744</b>   | <b>78,778,752</b>   |
| <b>Operating Expenses:</b>                                           |                    |                    |                    |                    |                    |                    |                     |                     |                    |                    |                     |                     |                    |                    |                     |                     |
| Personnel                                                            | 406,053            | 169,880            | 1,346,831          | 1,922,765          | 3,168,152          | 1,321,752          | 10,681,433          | 15,171,337          | 3,168,152          | 1,321,752          | 10,681,433          | 15,171,337          | 3,289,603          | 1,760,954          | 11,561,494          | 16,612,051          |
| Shared Services - General & Administrative                           | 33,215             | 13,932             | 115,503            | 162,651            | 506,790            | 211,318            | 1,502,430           | 2,220,538           | 506,790            | 211,318            | 1,502,430           | 2,220,538           | 663,734            | 155,415            | 1,739,417           | 2,558,565           |
| Utilities                                                            | 20,242             | 12,127             | 22,572             | 54,941             | 423,326            | 269,553            | 1,705,824           | 2,398,704           | 423,326            | 269,553            | 1,705,824           | 2,398,704           | 543,917            | 449,484            | 2,156,620           | 3,150,021           |
| Materials and Supplies                                               | 110,198            | 69,356             | 207,488            | 387,043            | 468,816            | 233,440            | 1,486,676           | 2,188,933           | 468,816            | 233,440            | 1,486,676           | 2,188,933           | 501,582            | 500,563            | 1,765,642           | 2,767,787           |
| Miscellaneous Services                                               | 356,719            | 460,179            | 350,266            | 1,167,164          | 3,303,901          | 6,356,762          | 1,502,837           | 11,163,500          | 3,303,901          | 6,356,762          | 1,502,837           | 11,163,500          | 3,564,076          | 6,358,021          | 1,979,996           | 11,902,093          |
| Treatment and Transportation                                         | -                  | 425,941            | -                  | 425,941            | -                  | 3,874,185          | 12,480              | 3,886,665           | -                  | 3,874,185          | 12,480              | 3,886,665           | -                  | 3,977,539          | 12,000              | 3,989,539           |
| Depreciation and Amortization                                        | 219,235            | 584,893            | 571,282            | 1,375,409          | 2,607,786          | 4,816,890          | 5,973,976           | 13,398,651          | 2,607,786          | 4,816,890          | 5,973,976           | 13,398,651          | 2,605,699          | 4,616,783          | 5,893,862           | 13,116,343          |
| Major Maintenance Expenses                                           | 2,763              | 57,149             | 2,030,793          | 2,090,705          | 8,747              | 131,616            | 2,763,527           | 2,903,889           | 8,747              | 131,616            | 2,763,527           | 2,903,889           | 3,400              | 1,000,000          | 2,652,924           | 3,656,324           |
| Other Miscellaneous                                                  | -                  | -                  | -                  | -                  | -                  | -                  | 7,540               | 7,540               | -                  | -                  | 7,540               | 7,540               | 74,864             | 46,422             | 13,972              | 135,258             |
| <b>Total Operating Expenses</b>                                      | <b>1,148,426</b>   | <b>1,793,458</b>   | <b>4,644,735</b>   | <b>7,586,618</b>   | <b>10,487,519</b>  | <b>17,215,515</b>  | <b>25,636,723</b>   | <b>53,339,758</b>   | <b>10,487,519</b>  | <b>17,215,515</b>  | <b>25,636,723</b>   | <b>53,339,758</b>   | <b>11,246,874</b>  | <b>18,865,181</b>  | <b>27,775,927</b>   | <b>57,887,982</b>   |
| <b>Net Operating Profit</b>                                          | <b>(154,018)</b>   | <b>(376,778)</b>   | <b>(517,875)</b>   | <b>(1,048,671)</b> | <b>3,408,609</b>   | <b>(231,738)</b>   | <b>20,609,511</b>   | <b>23,786,382</b>   | <b>3,408,609</b>   | <b>(231,738)</b>   | <b>20,609,511</b>   | <b>23,786,382</b>   | <b>1,495,549</b>   | <b>1,167,404</b>   | <b>18,227,817</b>   | <b>20,890,770</b>   |
| <b>Non-Operating Income (Expense)</b>                                |                    |                    |                    |                    |                    |                    |                     |                     |                    |                    |                     |                     |                    |                    |                     |                     |
| Interest Income                                                      | 3,691              | 4,567              | 2,833              | 11,090             | 47,412             | 81,664             | 5,374               | 134,450             | 47,412             | 81,664             | 5,374               | 134,450             | 94,327             | 190,471            | 172,960             | 457,758             |
| Interest (Expense)                                                   | (100,335)          | (33,882)           | (1,447,166)        | (1,581,383)        | (1,312,849)        | (201,295)          | (16,657,251)        | (18,171,395)        | (1,312,849)        | (201,295)          | (16,657,251)        | (18,171,395)        | (1,406,328)        | (181,995)          | (17,535,086)        | (19,123,409)        |
| Other Miscellaneous                                                  | (1,447)            | (4,894)            | -                  | (6,341)            | (153,927)          | (55,198)           | -                   | (209,125)           | (153,927)          | (55,198)           | -                   | (209,125)           | -                  | -                  | -                   | -                   |
| <b>Net Non-Operating Income (Expense)</b>                            | <b>(98,091)</b>    | <b>(34,209)</b>    | <b>(1,444,333)</b> | <b>(1,576,633)</b> | <b>(1,419,364)</b> | <b>(174,828)</b>   | <b>(16,651,877)</b> | <b>(18,246,070)</b> | <b>(1,419,364)</b> | <b>(174,828)</b>   | <b>(16,651,877)</b> | <b>(18,246,070)</b> | <b>(1,312,001)</b> | <b>8,475</b>       | <b>(17,362,125)</b> | <b>(18,665,651)</b> |
| <b>Net Income (Loss)</b>                                             | <b>(252,109)</b>   | <b>(410,988)</b>   | <b>(1,962,207)</b> | <b>(2,625,304)</b> | <b>1,989,245</b>   | <b>(406,566)</b>   | <b>3,957,634</b>    | <b>5,540,313</b>    | <b>1,989,245</b>   | <b>(406,566)</b>   | <b>3,957,634</b>    | <b>5,540,313</b>    | <b>183,548</b>     | <b>1,175,879</b>   | <b>865,692</b>      | <b>2,225,119</b>    |
| <b>CASH FLOW STATEMENT</b>                                           |                    |                    |                    |                    |                    |                    |                     |                     |                    |                    |                     |                     |                    |                    |                     |                     |
| <b>Cash Flows From Operating Activities</b>                          |                    |                    |                    |                    |                    |                    |                     |                     |                    |                    |                     |                     |                    |                    |                     |                     |
| Operating Revenues                                                   | 994,408            | 1,416,680          | 4,126,860          | 6,537,948          | 13,896,128         | 16,983,778         | 46,246,235          | 77,126,140          | 13,896,128         | 16,983,778         | 46,246,235          | 77,126,140          | 12,742,423         | 20,032,585         | 46,003,744          | 78,778,752          |
| Operating Expenses (ex D&A)                                          | (929,191)          | (1,208,565)        | (4,073,453)        | (6,211,209)        | (7,879,733)        | (12,398,625)       | (19,662,748)        | (39,941,106)        | (7,879,733)        | (12,398,625)       | (19,662,748)        | (39,941,106)        | (8,641,176)        | (14,248,398)       | (21,882,064)        | (44,771,639)        |
| Non-Cash Working Capital Changes                                     | 358,862            | (524,924)          | 4,148,923          | 3,982,862          | (2,449,616)        | 19,485             | 2,690,336           | 260,206             | (2,449,616)        | 19,485             | 2,690,336           | 260,206             | 3,418              | (0)                | 50,001              | 53,419              |
| <b>Net Cash Provided by (Used in) Operating Activities</b>           | <b>424,079</b>     | <b>(316,809)</b>   | <b>4,202,330</b>   | <b>4,309,600</b>   | <b>3,566,779</b>   | <b>4,604,638</b>   | <b>29,273,823</b>   | <b>37,445,239</b>   | <b>3,566,779</b>   | <b>4,604,638</b>   | <b>29,273,823</b>   | <b>37,445,239</b>   | <b>4,104,666</b>   | <b>5,784,186</b>   | <b>24,171,680</b>   | <b>34,060,532</b>   |
| <b>Cash Flows From Financing Activities</b>                          |                    |                    |                    |                    |                    |                    |                     |                     |                    |                    |                     |                     |                    |                    |                     |                     |
| Capital Contributions                                                | -                  | -                  | -                  | -                  | -                  | -                  | -                   | -                   | -                  | -                  | -                   | -                   | -                  | -                  | -                   | -                   |
| Proceeds New Borrowing                                               | -                  | -                  | -                  | -                  | 21,679,902         | -                  | -                   | 21,679,902          | 21,679,902         | -                  | -                   | 21,679,902          | -                  | -                  | 2,000,000           | 2,000,000           |
| Interest Payments                                                    | (1,270)            | (15,455)           | (5,827,901)        | (5,844,626)        | (1,344,261)        | (160,037)          | (11,600,444)        | (13,104,741)        | (1,344,261)        | (160,037)          | (11,600,444)        | (13,104,741)        | (1,406,328)        | (181,995)          | (11,565,086)        | (13,153,409)        |
| Principal Payments                                                   | (19,979)           | (55,929)           | (2,514,642)        | (2,590,550)        | (21,902,961)       | (549,370)          | (2,514,642)         | (24,966,973)        | (21,902,961)       | (549,370)          | (2,514,642)         | (24,966,973)        | (2,092,818)        | (549,034)          | (2,660,831)         | (5,302,683)         |
| <b>Net Cash Provided by (Used in) Financing Activities</b>           | <b>(21,248)</b>    | <b>(71,384)</b>    | <b>(8,342,543)</b> | <b>(8,435,176)</b> | <b>(1,567,319)</b> | <b>(709,407)</b>   | <b>(14,115,086)</b> | <b>(16,391,812)</b> | <b>(1,567,319)</b> | <b>(709,407)</b>   | <b>(14,115,086)</b> | <b>(16,391,812)</b> | <b>(3,499,146)</b> | <b>(731,029)</b>   | <b>(12,225,917)</b> | <b>(16,456,092)</b> |
| <b>Cash Flows from Capital and Related Activities</b>                |                    |                    |                    |                    |                    |                    |                     |                     |                    |                    |                     |                     |                    |                    |                     |                     |
| Non-Operating Income (Expenses)                                      | (1,447)            | (4,894)            | -                  | (6,341)            | (153,927)          | (55,198)           | (1,243,524)         | (1,452,649)         | (153,927)          | (55,198)           | (1,243,524)         | (1,452,649)         | -                  | -                  | (1,230,600)         | (1,230,600)         |
| Capital Expenditures, net                                            | (1,238,086)        | (1,105,191)        | (904,345)          | (3,247,622)        | (4,667,888)        | (4,010,435)        | (4,825,663)         | (13,503,985)        | (4,667,888)        | (4,010,435)        | (4,825,663)         | (13,503,985)        | (4,190,000)        | (2,921,800)        | (6,224,576)         | (13,336,376)        |
| <b>Net Cash Provided By (Used In) Capital and Related Activities</b> | <b>(1,239,533)</b> | <b>(1,110,085)</b> | <b>(904,345)</b>   | <b>(3,253,963)</b> | <b>(4,821,815)</b> | <b>(4,065,632)</b> | <b>(6,069,187)</b>  | <b>(14,956,634)</b> | <b>(4,821,815)</b> | <b>(4,065,632)</b> | <b>(6,069,187)</b>  | <b>(14,956,634)</b> | <b>(4,190,000)</b> | <b>(2,921,800)</b> | <b>(7,455,176)</b>  | <b>(14,566,976)</b> |
| <b>Cash Flows From Investing Activities</b>                          |                    |                    |                    |                    |                    |                    |                     |                     |                    |                    |                     |                     |                    |                    |                     |                     |
| Investments Converting To Cash                                       | -                  | -                  | -                  | -                  | 493,682            | 2,851,000          | -                   | 3,344,682           | 493,682            | 2,851,000          | -                   | 3,344,682           | -                  | -                  | -                   | -                   |
| Purchased Investments                                                | -                  | (499,000)          | -                  | (499,000)          | (494,000)          | (3,714,000)        | -                   | (4,208,000)         | (494,000)          | (3,714,000)        | -                   | (4,208,000)         | -                  | -                  | -                   | -                   |
| Interest Income                                                      | 3,691              | 4,567              | 2,833              | 11,090             | 47,412             | 81,664             | 5,374               | 134,450             | 47,412             | 81,664             | 5,374               | 134,450             | 94,327             | 190,471            | 172,960             | 457,758             |
| <b>Net Cash Provided By (Used In) Investing Activities</b>           | <b>3,691</b>       | <b>(494,433)</b>   | <b>2,833</b>       | <b>(487,910)</b>   | <b>47,095</b>      | <b>(781,336)</b>   | <b>5,374</b>        | <b>(728,868)</b>    | <b>47,095</b>      | <b>(781,336)</b>   | <b>5,374</b>        | <b>(728,868)</b>    | <b>94,327</b>      | <b>190,471</b>     | <b>172,960</b>      | <b>457,758</b>      |
| <b>FUND NET CASH FLOWS</b>                                           | <b>(833,011)</b>   | <b>(1,992,712)</b> | <b>(5,041,725)</b> | <b>(7,867,448)</b> | <b>(2,775,261)</b> | <b>(951,737)</b>   | <b>9,094,924</b>    | <b>5,367,926</b>    | <b>(2,775,261)</b> | <b>(951,737)</b>   | <b>9,094,924</b>    | <b>5,367,926</b>    | <b>(3,490,153)</b> | <b>2,321,828</b>   | <b>4,663,547</b>    | <b>3,495,222</b>    |
| <b>DEBT SERVICE RATIO</b>                                            |                    |                    |                    |                    |                    |                    |                     |                     |                    |                    |                     |                     |                    |                    |                     |                     |
| <b>Debt Service Ratio (Indenture Based)</b>                          |                    |                    |                    |                    |                    |                    |                     |                     |                    |                    |                     |                     |                    |                    |                     |                     |
| Total Operating Revenues                                             | 926,468            | 1,356,491          | 3,970,829          | 6,253,787          | 12,304,827         | 15,883,943         | 42,633,310          | 70,822,080          | 12,304,827         | 15,883,943         | 42,633,310          | 70,822,080          | 11,799,441         | 19,166,369         | 41,996,514          | 72,962,324          |
| Total Operating Expenses (Cash Based)                                | (929,191)          | (1,208,565)        | (4,073,453)        | (6,211,209)        | (7,879,733)        | (12,398,625)       | (19,662,748)        | (39,941,106)        | (7,879,733)        | (12,398,625)       | (19,662,748)        | (39,941,106)        | (8,641,176)        | (14,248,398)       | (21,882,064)        | (44,771,639)        |
| Interest Income                                                      | 3,691              | 4,567              | 2,833              | 11,090             | 47,412             | 81,664             | 5,374               | 134,450             | 47,412             | 81,664             | 5,374               | 134,450             | 94,327             | 190,471            | 172,960             | 457,758             |
| Annual Lease Payment (City)                                          | -                  | -                  | -                  | -                  | -                  | -                  | (1,243,524)         | (1,243,524)         | -                  | -                  | (1,243,524)         | (1,243,524)         | -                  | -                  | (1,230,600)         | (1,230,600)         |
| Total Non-Operating Revenues (Expenses)                              | 66,493             | 55,295             | 156,031            | 277,820            | 1,437,374          | 1,044,637          | 3,612,924           | 6,094,935           | 1,437,374          | 1,044,637          | 3,612,924           | 6,094,935           | 942,983            | 866,216            | 4,007,230           | 5,816,428           |
| <b>Cash Available For Debt Service</b>                               | <b>67,461</b>      | <b>207,787</b>     | <b>56,240</b>      | <b>331,488</b>     | <b>5,909,880</b>   | <b>4,611,619</b>   | <b>25,345,336</b>   | <b>35,866,835</b>   | <b>5,909,880</b>   | <b>4,611,619</b>   | <b>25,345,336</b>   | <b>35,866,835</b>   | <b>4,195,575</b>   | <b>5,974,657</b>   | <b>23,064,040</b>   | <b>33,234,271</b>   |
| Interest Paid                                                        | 112,022            | 13,336             | 966,704            | 1,092,062          | 1,344,261          | 160,037            | 11,600,444          | 13,104,741          | 1,344,261          | 160,037            | 11,600,444          | 13,104,741          | 1,406,328          | 181,995            | 11,565,086          | 13,153,409          |
| Debt Retirement (Principal Payments)                                 | 18,588             | 45,781             | 209,554            | 273,923            | 223,059            | 549,370            | 2,514,642           | 3,287,071           | 223,059            | 549,370            | 2,514,642           | 3,287,071           | 2,092,818          | 549,034            | 2,660,831           | 5,302,683           |
| <b>Total Debt Service</b>                                            | <b>130,610</b>     | <b>59,117</b>      | <b>1,176,257</b>   | <b>1,365,984</b>   | <b>1,567,319</b>   | <b>709,407</b>     | <b>14,115,086</b>   | <b>16,391,812</b>   | <b>1,567,319</b>   | <b>709,407</b>     | <b>14,115,086</b>   | <b>16,391,812</b>   | <b>3,499,146</b>   | <b>731,029</b>     | <b>14,225,917</b>   | <b>18,456,092</b>   |
| <b>Debt Service Ratio</b>                                            | <b>0.52</b>        | <b>3.51</b>        | <b>0.05</b>        | <b>0.24</b>        | <b>3.77</b>        | <b>6.50</b>        | <b>1.80</b>         | <b>2.19</b>         | <b>3.77</b>        | <b>6.50</b>        | <b>1.80</b>         | <b>2.19</b>         | <b>1.20</b>        | <b>8.17</b>        | <b>1.62</b>         | <b>1.80</b>         |



**LEHIGH COUNTY AUTHORITY**  
**FINANCIAL STATEMENTS - SUBURBAN WATER**  
**For the Period Ended December 31, 2021**

| STATEMENTS OF ACTIVITIES                                             | Suburban - Water   |                    |                    |                  |                  |                    |                    |                    |                  |                    |                    |                    |                    |                    |                    |
|----------------------------------------------------------------------|--------------------|--------------------|--------------------|------------------|------------------|--------------------|--------------------|--------------------|------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                                                                      | Month              |                    |                    |                  |                  | Year To Date       |                    |                    |                  |                    | Full Year          |                    |                    |                    |                    |
|                                                                      | Actual             | Q4 FC              | Prior Yr           | FC Var           | PY Var           | Actual             | Q4 FC              | Prior Yr           | FC Var           | PY Var             | Actual             | Budget             | Prior Yr           | Bud Var            | PY Var             |
| <b>Operating Revenues:</b>                                           |                    |                    |                    |                  |                  |                    |                    |                    |                  |                    |                    |                    |                    |                    |                    |
| User Charges                                                         | 926,468            | 880,110            | 949,429            | 46,358           | (22,961)         | 12,304,827         | 12,152,426         | 10,866,675         | 152,401          | 1,438,152          | 12,304,827         | 11,799,441         | 10,866,675         | 505,386            | 1,438,152          |
| Connection & System Charges                                          | 65,420             | 35,243             | 157,145            | 30,177           | (91,725)         | 1,534,752          | 1,557,570          | 860,596            | (22,818)         | 674,156            | 1,534,752          | 912,039            | 860,596            | 622,713            | 674,156            |
| Other Miscellaneous Revenues                                         | 2,520              | 2,835              | 82,248             | (315)            | (79,728)         | 56,549             | 70,543             | 105,508            | (13,994)         | (48,959)           | 56,549             | 30,944             | 105,508            | 25,605             | (48,959)           |
| <b>Total Operating Revenues</b>                                      | <b>994,408</b>     | <b>918,188</b>     | <b>1,188,822</b>   | <b>76,220</b>    | <b>(194,414)</b> | <b>13,896,128</b>  | <b>13,780,539</b>  | <b>11,832,779</b>  | <b>115,589</b>   | <b>2,063,349</b>   | <b>13,896,128</b>  | <b>12,742,423</b>  | <b>11,832,779</b>  | <b>1,153,704</b>   | <b>2,063,349</b>   |
| <b>Operating Expenses:</b>                                           |                    |                    |                    |                  |                  |                    |                    |                    |                  |                    |                    |                    |                    |                    |                    |
| Personnel                                                            | 406,053            | 419,618            | 555,077            | 13,565           | 149,023          | 3,168,152          | 3,243,467          | 2,576,812          | 75,315           | (591,340)          | 3,168,152          | 3,289,603          | 2,576,812          | 121,451            | (591,340)          |
| Shared Services - General & Administrative                           | 33,215             | 57,134             | 26,358             | 23,918           | (6,857)          | 506,790            | 533,673            | 300,465            | 26,882           | (206,325)          | 506,790            | 663,734            | 300,465            | 156,943            | (206,325)          |
| Utilities                                                            | 20,242             | 42,907             | 43,137             | 22,665           | 22,895           | 423,326            | 442,609            | 419,493            | 19,283           | (3,833)            | 423,326            | 543,917            | 419,493            | 120,591            | (3,833)            |
| Materials and Supplies                                               | 110,198            | 29,830             | 18,866             | (80,369)         | (91,332)         | 468,816            | 385,268            | 279,430            | (83,549)         | (189,386)          | 468,816            | 501,582            | 279,430            | 32,766             | (189,386)          |
| Miscellaneous Services                                               | 356,719            | 379,754            | 1,163,496          | 23,035           | 806,777          | 3,303,901          | 3,649,091          | 3,645,096          | 345,190          | 341,195            | 3,303,901          | 3,564,076          | 3,645,096          | 260,175            | 341,195            |
| Treatment and Transportation                                         | -                  | -                  | -                  | -                | -                | -                  | -                  | -                  | -                | -                  | -                  | -                  | -                  | -                  | -                  |
| Depreciation and Amortization                                        | 219,235            | 219,235            | 525,606            | 0                | 306,371          | 2,607,786          | 2,607,786          | 2,948,963          | 0                | 341,177            | 2,607,786          | 2,605,699          | 2,948,963          | (2,087)            | 341,177            |
| Major Maintenance Expenses                                           | 2,763              | -                  | (9,412)            | (2,763)          | (12,175)         | 8,747              | 4,981              | -                  | (3,765)          | (8,747)            | 8,747              | 3,400              | -                  | (5,347)            | (8,747)            |
| Other Miscellaneous                                                  | -                  | -                  | -                  | -                | -                | -                  | -                  | -                  | -                | -                  | -                  | 74,864             | -                  | 74,864             | -                  |
| <b>Total Operating Expenses</b>                                      | <b>1,148,426</b>   | <b>1,148,477</b>   | <b>2,323,128</b>   | <b>51</b>        | <b>1,174,702</b> | <b>10,487,519</b>  | <b>10,866,874</b>  | <b>10,170,259</b>  | <b>379,355</b>   | <b>(317,260)</b>   | <b>10,487,519</b>  | <b>11,246,874</b>  | <b>10,170,259</b>  | <b>759,355</b>     | <b>(317,260)</b>   |
| <b>Net Operating Profit</b>                                          | <b>(154,018)</b>   | <b>(230,288)</b>   | <b>(1,134,305)</b> | <b>76,271</b>    | <b>980,288</b>   | <b>3,408,609</b>   | <b>2,913,665</b>   | <b>1,662,520</b>   | <b>494,944</b>   | <b>1,746,088</b>   | <b>3,408,609</b>   | <b>1,495,549</b>   | <b>1,662,520</b>   | <b>1,913,060</b>   | <b>1,746,088</b>   |
| <b>Non-Operating Income (Expense)</b>                                |                    |                    |                    |                  |                  |                    |                    |                    |                  |                    |                    |                    |                    |                    |                    |
| Interest Income                                                      | 3,691              | 4,104              | 4,316              | (414)            | (626)            | 47,412             | 48,357             | 74,821             | (945)            | (27,409)           | 47,412             | 94,327             | 74,821             | (46,915)           | (27,409)           |
| Interest (Expense)                                                   | (100,335)          | (98,198)           | (115,977)          | (2,137)          | 15,642           | (1,312,849)        | (1,308,685)        | (1,442,776)        | (4,165)          | 129,927            | (1,312,849)        | (1,406,328)        | (1,442,776)        | 93,479             | 129,927            |
| Other Miscellaneous                                                  | (1,447)            | -                  | 163,638            | (1,447)          | (165,085)        | (153,927)          | (151,127)          | 162,366            | (2,800)          | (316,293)          | (153,927)          | -                  | 162,366            | (153,927)          | (316,293)          |
| <b>Net Non-Operating Income (Expense)</b>                            | <b>(98,091)</b>    | <b>(94,094)</b>    | <b>51,978</b>      | <b>(3,998)</b>   | <b>(150,069)</b> | <b>(1,419,364)</b> | <b>(1,411,454)</b> | <b>(1,205,589)</b> | <b>(7,910)</b>   | <b>(213,776)</b>   | <b>(1,419,364)</b> | <b>(1,312,001)</b> | <b>(1,205,589)</b> | <b>(107,363)</b>   | <b>(213,776)</b>   |
| <b>Net Income (Loss)</b>                                             | <b>(252,109)</b>   | <b>(324,382)</b>   | <b>(1,082,328)</b> | <b>72,273</b>    | <b>830,219</b>   | <b>1,989,245</b>   | <b>1,502,211</b>   | <b>456,932</b>     | <b>487,034</b>   | <b>1,532,313</b>   | <b>1,989,245</b>   | <b>183,548</b>     | <b>456,932</b>     | <b>1,805,697</b>   | <b>1,532,313</b>   |
| <b>CASH FLOW STATEMENT</b>                                           |                    |                    |                    |                  |                  |                    |                    |                    |                  |                    |                    |                    |                    |                    |                    |
| <b>Cash Flows From Operating Activities</b>                          |                    |                    |                    |                  |                  |                    |                    |                    |                  |                    |                    |                    |                    |                    |                    |
| Operating Revenues                                                   | 994,408            | 918,188            | 1,188,822          | 76,220           | (194,414)        | 13,896,128         | 13,780,539         | 11,832,779         | 115,589          | 2,063,349          | 13,896,128         | 12,742,423         | 11,832,779         | 1,153,704          | 2,063,349          |
| Operating Expenses (ex D&A)                                          | (929,191)          | (929,242)          | (1,797,521)        | 51               | 868,330          | (7,879,733)        | (8,259,088)        | (7,221,296)        | 379,355          | (658,437)          | (7,879,733)        | (8,641,176)        | (7,221,296)        | 761,443            | (658,437)          |
| Non-Cash Working Capital Changes                                     | 358,862            | 445,244            | 557,980            | (86,382)         | (199,118)        | (2,449,616)        | (2,471,046)        | (87,538)           | 21,430           | (2,362,079)        | (2,449,616)        | 3,418              | (87,537)           | (2,453,034)        | (2,362,079)        |
| <b>Net Cash Provided by (Used in) Operating Activities</b>           | <b>424,079</b>     | <b>434,191</b>     | <b>(50,719)</b>    | <b>(10,112)</b>  | <b>474,798</b>   | <b>3,566,779</b>   | <b>3,050,404</b>   | <b>4,523,946</b>   | <b>516,374</b>   | <b>(957,167)</b>   | <b>3,566,779</b>   | <b>4,104,666</b>   | <b>4,523,946</b>   | <b>(537,887)</b>   | <b>(957,167)</b>   |
| <b>Cash Flows From Financing Activities</b>                          |                    |                    |                    |                  |                  |                    |                    |                    |                  |                    |                    |                    |                    |                    |                    |
| Capital Contributions                                                | -                  | -                  | -                  | -                | -                | -                  | -                  | -                  | -                | -                  | -                  | -                  | -                  | -                  | -                  |
| Proceeds New Borrowing                                               | -                  | -                  | -                  | -                | -                | 21,679,902         | 21,679,902         | -                  | -                | 21,679,902         | 21,679,902         | -                  | -                  | 21,679,902         | 21,679,902         |
| Interest Payments                                                    | (1,270)            | (1,270)            | (3,842)            | -                | 2,573            | (1,344,261)        | (1,344,261)        | (1,756,050)        | -                | 411,790            | (1,344,261)        | (1,406,328)        | (1,756,050)        | 62,067             | 411,790            |
| Principal Payments                                                   | (19,979)           | (19,979)           | (31,175)           | -                | 11,196           | (21,902,961)       | (21,902,961)       | (2,081,390)        | -                | (19,821,570)       | (21,902,961)       | (2,092,818)        | (2,081,390)        | (19,810,143)       | (19,821,570)       |
| <b>Net Cash Provided by (Used in) Financing Activities</b>           | <b>(21,248)</b>    | <b>(21,248)</b>    | <b>(35,017)</b>    | <b>-</b>         | <b>13,769</b>    | <b>(1,567,319)</b> | <b>(1,567,319)</b> | <b>(3,837,440)</b> | <b>-</b>         | <b>2,270,121</b>   | <b>(1,567,319)</b> | <b>(3,499,146)</b> | <b>(3,837,440)</b> | <b>1,931,827</b>   | <b>2,270,121</b>   |
| <b>Cash Flows from Capital and Related Activities</b>                |                    |                    |                    |                  |                  |                    |                    |                    |                  |                    |                    |                    |                    |                    |                    |
| Non-Operating Income (Expenses)                                      | (1,447)            | -                  | 163,638            | (1,447)          | (165,085)        | (153,927)          | (151,127)          | 162,366            | (2,800)          | (316,293)          | (153,927)          | -                  | 162,366            | (153,927)          | (316,293)          |
| Capital Expenditures, net                                            | (1,238,086)        | (1,043,860)        | (1,109,254)        | (194,226)        | (128,831)        | (4,667,888)        | (4,559,764)        | (5,043,931)        | (108,124)        | 376,044            | (4,667,888)        | (4,190,000)        | (5,043,931)        | (477,888)          | 376,044            |
| <b>Net Cash Provided By (Used In) Capital and Related Activities</b> | <b>(1,239,533)</b> | <b>(1,043,860)</b> | <b>(945,616)</b>   | <b>(195,673)</b> | <b>(293,916)</b> | <b>(4,821,815)</b> | <b>(4,710,890)</b> | <b>(4,881,565)</b> | <b>(110,924)</b> | <b>59,750</b>      | <b>(4,821,815)</b> | <b>(4,190,000)</b> | <b>(4,881,565)</b> | <b>(631,815)</b>   | <b>59,750</b>      |
| <b>Cash Flows From Investing Activities</b>                          |                    |                    |                    |                  |                  |                    |                    |                    |                  |                    |                    |                    |                    |                    |                    |
| Investments Converting To Cash                                       | -                  | -                  | 155,000            | -                | (155,000)        | 493,682            | 493,700            | 2,382,000          | (18)             | (1,888,318)        | 493,682            | -                  | 2,382,000          | 493,682            | (1,888,318)        |
| Purchased Investments                                                | -                  | -                  | -                  | -                | -                | (494,000)          | (494,000)          | (1,977,682)        | -                | 1,483,682          | (494,000)          | -                  | (1,977,682)        | (494,000)          | 1,483,682          |
| Interest Income                                                      | 3,691              | 4,104              | 4,316              | (414)            | (626)            | 47,412             | 48,357             | 74,821             | (945)            | (27,409)           | 47,412             | 94,327             | 74,821             | (46,915)           | (27,409)           |
| <b>Net Cash Provided By (Used In) Investing Activities</b>           | <b>3,691</b>       | <b>4,104</b>       | <b>159,316</b>     | <b>(414)</b>     | <b>(155,626)</b> | <b>47,095</b>      | <b>48,057</b>      | <b>479,138</b>     | <b>(963)</b>     | <b>(432,044)</b>   | <b>47,095</b>      | <b>94,327</b>      | <b>479,138</b>     | <b>(47,233)</b>    | <b>(432,044)</b>   |
| <b>FUND NET CASH FLOWS</b>                                           | <b>(833,011)</b>   | <b>(626,813)</b>   | <b>(872,036)</b>   | <b>(206,198)</b> | <b>39,025</b>    | <b>(2,775,261)</b> | <b>(3,179,748)</b> | <b>(3,715,921)</b> | <b>404,487</b>   | <b>940,660</b>     | <b>(2,775,261)</b> | <b>(3,490,153)</b> | <b>(3,715,921)</b> | <b>714,892</b>     | <b>940,660</b>     |
| <b>DEBT SERVICE RATIO</b>                                            |                    |                    |                    |                  |                  |                    |                    |                    |                  |                    |                    |                    |                    |                    |                    |
| <b>Debt Service Ratio (Indenture Based)</b>                          |                    |                    |                    |                  |                  |                    |                    |                    |                  |                    |                    |                    |                    |                    |                    |
| User Charges                                                         | 926,468            | 880,110            | 949,429            | 46,358           | (22,961)         | 12,304,827         | 12,152,426         | 10,866,675         | 152,401          | 1,438,152          | 12,304,827         | 11,799,441         | 10,866,675         | 505,386            | 1,438,152          |
| Operating Expenses (Cash Based)                                      | (929,191)          | (929,242)          | (1,797,521)        | 51               | 868,330          | (7,879,733)        | (8,259,088)        | (7,221,296)        | 379,355          | (658,437)          | (7,879,733)        | (8,641,176)        | (7,221,296)        | 761,443            | (658,437)          |
| Interest Income                                                      | 3,691              | 4,104              | 4,316              | (414)            | (626)            | 47,412             | 48,357             | 74,821             | (945)            | (27,409)           | 47,412             | 94,327             | 74,821             | (46,915)           | (27,409)           |
| Annual Lease Payment (City)                                          | -                  | -                  | -                  | -                | -                | -                  | -                  | -                  | -                | -                  | -                  | -                  | -                  | -                  | -                  |
| Non-Operating Revenues (Expenses)                                    | 66,493             | 38,078             | 403,031            | 28,415           | (336,538)        | 1,437,374          | 1,476,986          | 1,128,470          | (39,612)         | 308,904            | 1,437,374          | 942,983            | 1,128,470          | 494,391            | 308,904            |
| <b>Cash Available For Debt Service</b>                               | <b>67,461</b>      | <b>(6,949)</b>     | <b>(440,745)</b>   | <b>74,410</b>    | <b>508,205</b>   | <b>5,909,880</b>   | <b>5,418,681</b>   | <b>4,848,670</b>   | <b>491,198</b>   | <b>1,061,209</b>   | <b>5,909,880</b>   | <b>4,195,575</b>   | <b>4,848,670</b>   | <b>1,714,305</b>   | <b>1,061,209</b>   |
| Interest Paid                                                        | 112,022            | 112,022            | 146,338            | -                | (34,316)         | 1,344,261          | 1,344,261          | 1,756,050          | -                | (411,790)          | 1,344,261          | 1,406,328          | 1,756,050          | (62,067)           | (411,790)          |
| Debt Retirement (Principal Payments)                                 | 18,588             | 18,588             | 173,449            | -                | (154,861)        | 223,059            | 223,059            | 2,081,390          | -                | (1,858,331)        | 223,059            | 2,092,818          | 2,081,390          | (1,869,759)        | (1,858,331)        |
| <b>Total Debt Service</b>                                            | <b>130,610</b>     | <b>130,610</b>     | <b>319,787</b>     | <b>-</b>         | <b>(189,177)</b> | <b>1,567,320</b>   | <b>1,567,320</b>   | <b>3,837,440</b>   | <b>-</b>         | <b>(2,270,121)</b> | <b>1,567,320</b>   | <b>3,499,146</b>   | <b>3,837,440</b>   | <b>(1,931,826)</b> | <b>(2,270,121)</b> |
| <b>Debt Service Ratio</b>                                            | <b>0.52</b>        | <b>(0.05)</b>      | <b>(1.38)</b>      | <b>0.57</b>      | <b>1.89</b>      | <b>3.77</b>        | <b>3.46</b>        | <b>1.26</b>        | <b>0.31</b>      | <b>2.51</b>        | <b>3.77</b>        | <b>1.20</b>        | <b>1.26</b>        | <b>2.57</b>        | <b>2.51</b>        |

**LEHIGH COUNTY AUTHORITY**  
**VARIANCE ANALYSIS - MONTH**  
**For the Period Ended December 31, 2021**

**STATEMENTS OF ACTIVITIES**

**Operating Revenues:**

User Charges  
Connection & System Charges  
Other Miscellaneous Revenues

**Total Operating Revenues**

**Operating Expenses:**

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

**Total Operating Expenses**

**Net Operating Profit**

**Non-Operating Income (Expense)**

Interest Income  
Interest (Expense)  
Other Miscellaneous

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

**Net Income (Loss)**

**CASH FLOW STATEMENT**

**Cash Flows From Operating Activities**

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

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

**Cash Flows From Financing Activities**

Capital Contributions  
Proceeds New Borrowing  
Interest Payments  
Principal Payments

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

**Cash Flows from Capital and Related Activities**

Non-Operating Income (Expenses)  
Capital Expenditures, net

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

**Cash Flows From Investing Activities**

Investments Converting To Cash  
Purchased Investments  
Interest Income

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

**FUND NET CASH FLOWS**

| Suburban - Water   |                    |                  |                                                                                                                                 |  |
|--------------------|--------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------|--|
| Actual             | Q4 FC              | FC Var           | Comments                                                                                                                        |  |
| 926,468            | 880,110            | 46,358           | Higher residential revenues                                                                                                     |  |
| 65,420             | 35,243             | 30,177           | Higher tapping fees                                                                                                             |  |
| 2,520              | 2,835              | (315)            |                                                                                                                                 |  |
| <b>994,408</b>     | <b>918,188</b>     | <b>76,220</b>    | <b>Higher user charges and higher system charges</b>                                                                            |  |
| 406,053            | 419,618            | 13,565           |                                                                                                                                 |  |
| 33,215             | 57,134             | 23,918           |                                                                                                                                 |  |
| 20,242             | 42,907             | 22,665           |                                                                                                                                 |  |
| 110,198            | 29,830             | (80,369)         | Higher spending on purification and distribution supplies                                                                       |  |
| 356,719            | 379,754            | 23,035           |                                                                                                                                 |  |
| -                  | -                  | -                |                                                                                                                                 |  |
| 219,235            | 219,235            | 0                |                                                                                                                                 |  |
| 2,763              | -                  | (2,763)          |                                                                                                                                 |  |
| -                  | -                  | -                |                                                                                                                                 |  |
| <b>1,148,426</b>   | <b>1,148,477</b>   | <b>51</b>        | <b>Lower spending on personnel, G&amp;A, utilities, and services mostly offset by higher spending on materials and supplies</b> |  |
| <b>(154,018)</b>   | <b>(230,288)</b>   | <b>76,271</b>    | <b>Higher operating revenues aided just a bit by lower operating expenses</b>                                                   |  |
| 3,691              | 4,104              | (414)            |                                                                                                                                 |  |
| (100,335)          | (98,198)           | (2,137)          |                                                                                                                                 |  |
| (1,447)            | -                  | (1,447)          |                                                                                                                                 |  |
| <b>(98,091)</b>    | <b>(94,094)</b>    | <b>(3,998)</b>   | <b>Slightly lower interest income along with slightly higher interest expense</b>                                               |  |
| <b>(252,109)</b>   | <b>(324,382)</b>   | <b>72,273</b>    | <b>Higher net operating income slightly reduced by unfavorable non-operating activity</b>                                       |  |
| 994,408            | 918,188            | 76,220           |                                                                                                                                 |  |
| (929,191)          | (929,242)          | 51               |                                                                                                                                 |  |
| 358,862            | 445,244            | (86,382)         |                                                                                                                                 |  |
| <b>424,079</b>     | <b>434,191</b>     | <b>(10,112)</b>  | <b>Higher operating income mostly offset by unfavorable changes in working capital</b>                                          |  |
| -                  | -                  | -                |                                                                                                                                 |  |
| -                  | -                  | -                |                                                                                                                                 |  |
| (1,270)            | (1,270)            | -                |                                                                                                                                 |  |
| (19,979)           | (19,979)           | -                |                                                                                                                                 |  |
| <b>(21,248)</b>    | <b>(21,248)</b>    | <b>-</b>         |                                                                                                                                 |  |
| (1,447)            | -                  | (1,447)          |                                                                                                                                 |  |
| (1,238,086)        | (1,043,860)        | (194,226)        | Higher capex                                                                                                                    |  |
| <b>(1,239,533)</b> | <b>(1,043,860)</b> | <b>(195,673)</b> |                                                                                                                                 |  |
| -                  | -                  | -                |                                                                                                                                 |  |
| -                  | -                  | -                |                                                                                                                                 |  |
| 3,691              | 4,104              | (414)            |                                                                                                                                 |  |
| <b>3,691</b>       | <b>4,104</b>       | <b>(414)</b>     |                                                                                                                                 |  |
| <b>(833,011)</b>   | <b>(626,813)</b>   | <b>(206,198)</b> | <b>Higher cash from operations more than offset by higher capex</b>                                                             |  |

LEHIGH COUNTY AUTHORITY  
FINANCIAL STATEMENTS - SUBURBAN WASTEWATER  
For the Period Ended December 31, 2021

| STATEMENTS OF ACTIVITIES                                      | Suburban - Wastewater |             |             |           |             |              |              |              |           |             |              |              |              |             |             |
|---------------------------------------------------------------|-----------------------|-------------|-------------|-----------|-------------|--------------|--------------|--------------|-----------|-------------|--------------|--------------|--------------|-------------|-------------|
|                                                               | Month                 |             |             |           |             | Year To Date |              |              |           |             | Full Year    |              |              |             |             |
|                                                               | Actual                | Q4 FC       | Prior Yr    | FC Var    | PY Var      | Actual       | Q4 FC        | Prior Yr     | FC Var    | PY Var      | Actual       | Budget       | Prior Yr     | Bud Var     | PY Var      |
| Operating Revenues:                                           |                       |             |             |           |             |              |              |              |           |             |              |              |              |             |             |
| User Charges                                                  | 1,356,491             | 1,325,306   | 1,439,198   | 31,184    | (82,708)    | 15,883,943   | 15,819,369   | 16,168,927   | 64,573    | (284,984)   | 15,883,943   | 19,166,369   | 16,168,927   | (3,282,426) | (284,984)   |
| Connection & System Charges                                   | 60,084                | 35,484      | 13,890      | 24,600    | 46,194      | 1,054,144    | 1,028,489    | 3,584,347    | 25,655    | (2,530,203) | 1,054,144    | 865,588      | 3,584,347    | 188,557     | (2,530,203) |
| Other Miscellaneous Revenues                                  | 105                   | 13,390      | 5,620       | (13,285)  | (5,515)     | 45,691       | 89,061       | 11,694       | (43,370)  | 33,997      | 45,691       | 628          | 11,694       | 45,063      | 33,997      |
| Total Operating Revenues                                      | 1,416,680             | 1,374,180   | 1,458,709   | 42,500    | (42,029)    | 16,983,778   | 16,936,919   | 19,764,968   | 46,859    | (2,781,190) | 16,983,778   | 20,032,585   | 19,764,968   | (3,048,807) | (2,781,190) |
| Operating Expenses:                                           |                       |             |             |           |             |              |              |              |           |             |              |              |              |             |             |
| Personnel                                                     | 169,880               | 129,979     | 338,482     | (39,901)  | 168,601     | 1,321,752    | 1,291,454    | 1,292,099    | (30,298)  | (29,653)    | 1,321,752    | 1,760,954    | 1,292,099    | 439,202     | (29,653)    |
| Shared Services - General & Administrative                    | 13,932                | 16,894      | 30,790      | 2,962     | 16,858      | 211,318      | 210,300      | 91,502       | (1,018)   | (119,816)   | 211,318      | 155,415      | 91,502       | (55,903)    | (119,816)   |
| Utilities                                                     | 12,127                | 29,183      | 29,215      | 17,056    | 17,088      | 269,553      | 289,430      | 296,419      | 19,876    | 26,866      | 269,553      | 449,484      | 296,419      | 179,931     | 26,866      |
| Materials and Supplies                                        | 69,356                | 58,767      | 47,608      | (10,590)  | (21,748)    | 233,440      | 204,226      | 232,039      | (29,214)  | (1,401)     | 233,440      | 500,563      | 232,039      | 267,123     | (1,401)     |
| Miscellaneous Services                                        | 460,179               | 465,818     | 1,066,602   | 5,639     | 606,423     | 6,356,762    | 6,501,831    | 6,243,489    | 145,069   | (113,273)   | 6,356,762    | 6,358,021    | 6,243,489    | 1,259       | (113,273)   |
| Treatment and Transportation                                  | 425,941               | 425,000     | 272,276     | (941)     | (153,664)   | 3,874,185    | 3,920,759    | 2,906,958    | 46,574    | (967,227)   | 3,874,185    | 3,977,539    | 2,906,958    | 103,354     | (967,227)   |
| Depreciation and Amortization                                 | 584,893               | 584,893     | 1,718,354   | -         | 1,133,462   | 4,816,890    | 4,816,890    | 5,937,183    | -         | 1,120,293   | 4,816,890    | 4,616,783    | 5,937,183    | (200,107)   | 1,120,293   |
| Major Maintenance Expenses                                    | 57,149                | 4,722       | (9,416)     | (52,427)  | (66,565)    | 131,616      | 84,654       | 42,698       | (46,961)  | (88,918)    | 131,616      | 1,000,000    | 42,698       | 868,384     | (88,918)    |
| Other Miscellaneous                                           | -                     | -           | -           | -         | -           | -            | -            | -            | -         | -           | -            | 46,422       | -            | 46,422      | -           |
| Total Operating Expenses                                      | 1,793,458             | 1,715,256   | 3,493,913   | (78,202)  | 1,700,455   | 17,215,515   | 17,319,544   | 17,042,387   | 104,028   | (173,128)   | 17,215,515   | 18,865,181   | 17,042,387   | 1,649,666   | (173,128)   |
| Net Operating Profit                                          | (376,778)             | (341,076)   | (2,035,204) | (35,702)  | 1,658,426   | (231,738)    | (382,625)    | 2,722,581    | 150,887   | (2,954,319) | (231,738)    | 1,167,404    | 2,722,581    | (1,399,141) | (2,954,319) |
| Non-Operating Income (Expense)                                |                       |             |             |           |             |              |              |              |           |             |              |              |              |             |             |
| Interest Income                                               | 4,567                 | 6,325       | 11,634      | (1,758)   | (7,068)     | 81,664       | 87,017       | 185,457      | (5,353)   | (103,792)   | 81,664       | 190,471      | 185,457      | (108,806)   | (103,792)   |
| Interest (Expense)                                            | (33,882)              | (14,538)    | (15,951)    | (19,344)  | (17,930)    | (201,295)    | (184,586)    | (199,707)    | (16,709)  | (1,588)     | (201,295)    | (181,995)    | (199,707)    | (19,300)    | (1,588)     |
| Other Miscellaneous                                           | (4,894)               | -           | (6,282)     | (4,894)   | 1,388       | (55,198)     | (45,060)     | 16,089       | (10,138)  | (71,287)    | (55,198)     | -            | 16,089       | (55,198)    | (71,287)    |
| Net Non-Operating Income (Expense)                            | (34,209)              | (8,213)     | (10,599)    | (25,996)  | (23,610)    | (174,828)    | (142,629)    | 1,839        | (32,199)  | (176,667)   | (174,828)    | 8,475        | 1,839        | (183,304)   | (176,667)   |
| Net Income (Loss)                                             | (410,988)             | (349,289)   | (2,045,803) | (61,698)  | 1,634,816   | (406,566)    | (525,254)    | 2,724,420    | 118,688   | (3,130,986) | (406,566)    | 1,175,879    | 2,724,420    | (1,582,445) | (3,130,986) |
| CASH FLOW STATEMENT                                           |                       |             |             |           |             |              |              |              |           |             |              |              |              |             |             |
| Cash Flows From Operating Activities                          |                       |             |             |           |             |              |              |              |           |             |              |              |              |             |             |
| Operating Revenues                                            | 1,416,680             | 1,374,180   | 1,458,709   | 42,500    | (42,029)    | 16,983,778   | 16,936,919   | 19,764,968   | 46,859    | (2,781,190) | 16,983,778   | 20,032,585   | 19,764,968   | (3,048,807) | (2,781,190) |
| Operating Expenses (ex D&A)                                   | (1,208,565)           | (1,130,363) | (1,775,559) | (78,202)  | 566,993     | (12,398,625) | (12,502,654) | (11,105,204) | 104,028   | (1,293,421) | (12,398,625) | (14,248,398) | (11,105,204) | 1,849,773   | (1,293,421) |
| Non-Cash Working Capital Changes                              | (524,924)             | (536,717)   | 1,901,554   | 11,793    | (2,426,478) | 19,485       | 37,319       | (878,012)    | (17,834)  | 897,498     | 19,485       | (0)          | (878,011)    | 19,485      | 897,497     |
| Net Cash Provided by (Used in) Operating Activities           | (316,809)             | (292,900)   | 1,584,704   | (23,909)  | (1,901,514) | 4,604,638    | 4,471,584    | 7,781,752    | 133,053   | (3,177,114) | 4,604,638    | 5,784,186    | 7,781,753    | (1,179,549) | (3,177,115) |
| Cash Flows From Financing Activities                          |                       |             |             |           |             |              |              |              |           |             |              |              |              |             |             |
| Capital Contributions                                         | -                     | -           | -           | -         | -           | -            | -            | -            | -         | -           | -            | -            | -            | -           | -           |
| Proceeds New Borrowing                                        | -                     | -           | -           | -         | -           | -            | -            | -            | -         | -           | -            | -            | -            | -           | -           |
| Interest Payments                                             | (15,455)              | (11,629)    | (12,950)    | (3,826)   | (2,505)     | (160,037)    | (160,037)    | (164,692)    | 0         | 4,655       | (160,037)    | (181,995)    | (164,692)    | 21,959      | 4,655       |
| Principal Payments                                            | (55,929)              | (46,812)    | (45,305)    | (9,117)   | (10,624)    | (549,370)    | (549,370)    | (542,065)    | 0         | (7,305)     | (549,370)    | (549,034)    | (542,065)    | (336)       | (7,305)     |
| Net Cash Provided by (Used in) Financing Activities           | (71,384)              | (58,441)    | (58,255)    | (12,943)  | (13,129)    | (709,407)    | (709,407)    | (706,757)    | 0         | (2,650)     | (709,407)    | (731,029)    | (706,757)    | 21,623      | (2,650)     |
| Cash Flows from Capital and Related Activities                |                       |             |             |           |             |              |              |              |           |             |              |              |              |             |             |
| Non-Operating Income (Expenses)                               | (4,894)               | -           | (6,282)     | (4,894)   | 1,388       | (55,198)     | (45,060)     | 16,089       | (10,138)  | (71,287)    | (55,198)     | -            | 16,089       | (55,198)    | (71,287)    |
| Capital Expenditures, net                                     | (1,105,191)           | (850,349)   | (1,346,382) | (254,842) | 241,191     | (4,010,435)  | (3,587,128)  | (8,381,452)  | (423,307) | 4,371,017   | (4,010,435)  | (2,921,800)  | (8,381,452)  | (1,088,635) | 4,371,017   |
| Net Cash Provided By (Used In) Capital and Related Activities | (1,110,085)           | (850,349)   | (1,352,664) | (259,736) | 242,579     | (4,065,632)  | (3,632,188)  | (8,365,363)  | (433,444) | 4,299,730   | (4,065,632)  | (2,921,800)  | (8,365,363)  | (1,143,832) | 4,299,730   |
| Cash Flows From Investing Activities                          |                       |             |             |           |             |              |              |              |           |             |              |              |              |             |             |
| Investments Converting To Cash                                | -                     | -           | 1,245,000   | -         | (1,245,000) | 2,851,000    | 2,851,000    | 5,156,000    | -         | (2,305,000) | 2,851,000    | -            | 5,156,000    | 2,851,000   | (2,305,000) |
| Purchased Investments                                         | (499,000)             | (499,000)   | -           | -         | (499,000)   | (3,714,000)  | (3,714,000)  | (3,653,000)  | -         | (61,000)    | (3,714,000)  | -            | (3,653,000)  | (3,714,000) | (61,000)    |
| Interest Income                                               | 4,567                 | 6,325       | 11,634      | (1,758)   | (7,068)     | 81,664       | 87,017       | 185,457      | (5,353)   | (103,792)   | 81,664       | 190,471      | 185,457      | (108,806)   | (103,792)   |
| Net Cash Provided By (Used In) Investing Activities           | (494,433)             | (492,675)   | 1,256,634   | (1,758)   | (1,751,068) | (781,336)    | (775,983)    | 1,688,457    | (5,353)   | (2,469,792) | (781,336)    | 190,471      | 1,688,457    | (971,806)   | (2,469,792) |
| FUND NET CASH FLOWS                                           | (1,992,712)           | (1,694,366) | 1,430,419   | (298,346) | (3,423,131) | (951,737)    | (645,994)    | 398,088      | (305,743) | (1,349,826) | (951,737)    | 2,321,828    | 398,089      | (3,273,565) | (1,349,826) |
| DEBT SERVICE RATIO                                            |                       |             |             |           |             |              |              |              |           |             |              |              |              |             |             |
| Debt Service Ratio (Indenture Based)                          |                       |             |             |           |             |              |              |              |           |             |              |              |              |             |             |
| User Charges                                                  | 1,356,491             | 1,325,306   | 1,439,198   | 31,184    | (82,708)    | 15,883,943   | 15,819,369   | 16,168,927   | 64,573    | (284,984)   | 15,883,943   | 19,166,369   | 16,168,927   | (3,282,426) | (284,984)   |
| Operating Expenses (Cash Based)                               | (1,208,565)           | (1,130,363) | (1,775,559) | (78,202)  | 566,993     | (12,398,625) | (12,502,654) | (11,105,204) | 104,028   | (1,293,421) | (12,398,625) | (14,248,398) | (11,105,204) | 1,849,773   | (1,293,421) |
| Interest Income                                               | 4,567                 | 6,325       | 11,634      | (1,758)   | (7,068)     | 81,664       | 87,017       | 185,457      | (5,353)   | (103,792)   | 81,664       | 190,471      | 185,457      | (108,806)   | (103,792)   |
| Annual Lease Payment (City)                                   | -                     | -           | -           | -         | -           | -            | -            | -            | -         | -           | -            | -            | -            | -           | -           |
| Non-Operating Revenues (Expenses)                             | 55,295                | 48,874      | 13,229      | 6,421     | 42,066      | 1,044,637    | 1,072,489    | 3,612,130    | (27,852)  | (2,567,493) | 1,044,637    | 866,216      | 3,612,130    | 178,422     | (2,567,493) |
| Cash Available For Debt Service                               | 207,787               | 250,141     | (311,497)   | (42,354)  | 519,284     | 4,611,619    | 4,476,223    | 8,861,310    | 135,396   | (4,249,691) | 4,611,619    | 5,974,657    | 8,861,310    | (1,363,038) | (4,249,691) |
| Interest Paid                                                 | 13,336                | 13,336      | 13,724      | -         | (388)       | 160,037      | 160,037      | 164,692      | -         | (4,655)     | 160,037      | 181,995      | 164,692      | (21,959)    | (4,655)     |
| Debt Retirement (Principal Payments)                          | 45,781                | 45,781      | 45,172      | -         | 609         | 549,370      | 549,370      | 542,065      | -         | 7,305       | 549,370      | 549,034      | 542,065      | 336         | 7,305       |
| Total Debt Service                                            | 59,117                | 59,117      | 58,896      | -         | 221         | 709,407      | 709,407      | 706,757      | -         | 2,650       | 709,407      | 731,029      | 706,757      | (21,623)    | 2,650       |
| Debt Service Ratio                                            | 3.51                  | 4.23        | (5.29)      | (0.72)    | 8.80        | 6.50         | 6.31         | 12.54        | 0.19      | (6.04)      | 6.50         | 8.17         | 12.54        | (1.67)      | (6.04)      |

LEHIGH COUNTY AUTHORITY  
VARIANCE ANALYSIS - MONTH  
For the Period Ended December 31, 2021

**STATEMENTS OF ACTIVITIES**

**Operating Revenues:**

User Charges  
Connection & System Charges  
Other Miscellaneous Revenues

**Total Operating Revenues**

**Operating Expenses:**

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

**Total Operating Expenses**

**Net Operating Profit**

**Non-Operating Income (Expense)**

Interest Income  
Interest (Expense)  
Other Miscellaneous

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

**Net Income (Loss)**

**CASH FLOW STATEMENT**

**Cash Flows From Operating Activities**

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

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

**Cash Flows From Financing Activities**

Capital Contributions  
Proceeds New Borrowing  
Interest Payments  
Principal Payments

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

**Cash Flows from Capital and Related Activities**

Non-Operating Income (Expenses)  
Capital Expenditures, net

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

**Cash Flows From Investing Activities**

Investments Converting To Cash  
Purchased Investments  
Interest Income

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

**FUND NET CASH FLOWS**

| Suburban - Wastewater |             |           |                                                                                                            |  |
|-----------------------|-------------|-----------|------------------------------------------------------------------------------------------------------------|--|
| Actual                | Q4 FC       | FC Var    | Comments                                                                                                   |  |
| 1,356,491             | 1,325,306   | 31,184    | Higher hauler revenues                                                                                     |  |
| 60,084                | 35,484      | 24,600    | Higher tapping fees                                                                                        |  |
| 105                   | 13,390      | (13,285)  |                                                                                                            |  |
| 1,416,680             | 1,374,180   | 42,500    | Higher user and system revenues partially eroded by unfavorable miscellaneous revenues                     |  |
| 169,880               | 129,979     | (39,901)  | Higher labor charged in                                                                                    |  |
| 13,932                | 16,894      | 2,962     |                                                                                                            |  |
| 12,127                | 29,183      | 17,056    |                                                                                                            |  |
| 69,356                | 58,767      | (10,590)  |                                                                                                            |  |
| 460,179               | 465,818     | 5,639     |                                                                                                            |  |
| 425,941               | 425,000     | (941)     |                                                                                                            |  |
| 584,893               | 584,893     | -         |                                                                                                            |  |
| 57,149                | 4,722       | (52,427)  | Higher expensed project costs                                                                              |  |
| -                     | -           | -         |                                                                                                            |  |
| 1,793,458             | 1,715,256   | (78,202)  | Higher labor, material & supplies, and major maintenance offset some by lower G&A, utilities, and services |  |
|                       |             |           |                                                                                                            |  |
| (376,778)             | (341,076)   | (35,702)  | Higher operating expenses partially offset by higher operating revenues                                    |  |
| 4,567                 | 6,325       | (1,758)   |                                                                                                            |  |
| (33,882)              | (14,538)    | (19,344)  |                                                                                                            |  |
| (4,894)               | -           | (4,894)   |                                                                                                            |  |
| (34,209)              | (8,213)     | (25,996)  | Higher interest expense                                                                                    |  |
| (410,988)             | (349,289)   | (61,698)  | Lower net operating income and unfavorable financial related expenses                                      |  |
|                       |             |           |                                                                                                            |  |
| 1,416,680             | 1,374,180   | 42,500    |                                                                                                            |  |
| (1,208,565)           | (1,130,363) | (78,202)  |                                                                                                            |  |
| (524,924)             | (536,717)   | 11,793    |                                                                                                            |  |
| (316,809)             | (292,900)   | (23,909)  | Lower operating revenues more than offset by higher operating expenses                                     |  |
| -                     | -           | -         |                                                                                                            |  |
| -                     | -           | -         |                                                                                                            |  |
| (15,455)              | (11,629)    | (3,826)   |                                                                                                            |  |
| (55,929)              | (46,812)    | (9,117)   |                                                                                                            |  |
| (71,384)              | (58,441)    | (12,943)  | Lower intest payments partially offset by higher principal payments                                        |  |
| (4,894)               | -           | (4,894)   |                                                                                                            |  |
| (1,105,191)           | (850,349)   | (254,842) |                                                                                                            |  |
| (1,110,085)           | (850,349)   | (259,736) | Higher capex                                                                                               |  |
| -                     | -           | -         |                                                                                                            |  |
| (499,000)             | (499,000)   | -         |                                                                                                            |  |
| 4,567                 | 6,325       | (1,758)   |                                                                                                            |  |
| (494,433)             | (492,675)   | (1,758)   |                                                                                                            |  |
| (1,992,712)           | (1,694,366) | (298,346) | Lower cash from operations and higher capex                                                                |  |

LEHIGH COUNTY AUTHORITY  
FINANCIAL STATEMENTS - CITY DIVISION  
For the Period Ended December 31, 2021

| STATEMENTS OF ACTIVITIES                                      | City Division |             |             |          |             |              |              |              |          |             |              |              |              |             |             |
|---------------------------------------------------------------|---------------|-------------|-------------|----------|-------------|--------------|--------------|--------------|----------|-------------|--------------|--------------|--------------|-------------|-------------|
|                                                               | Month         |             |             |          |             | Year To Date |              |              |          |             | Full Year    |              |              |             |             |
|                                                               | Actual        | Q4 FC       | Prior Yr    | FC Var   | PY Var      | Actual       | Q4 FC        | Prior Yr     | FC Var   | PY Var      | Actual       | Budget       | Prior Yr     | Bud Var     | PY Var      |
| Operating Revenues:                                           |               |             |             |          |             |              |              |              |          |             |              |              |              |             |             |
| User Charges                                                  | 3,970,829     | 3,611,037   | 4,651,104   | 359,791  | (680,275)   | 42,633,310   | 42,583,934   | 37,983,675   | 49,376   | 4,649,635   | 42,633,310   | 41,996,514   | 37,983,675   | 636,796     | 4,649,635   |
| Connection & System Charges                                   | 148,401       | 196,609     | 1,159,456   | (48,208) | (1,011,055) | 3,499,567    | 3,534,977    | 2,768,043    | (35,410) | 731,524     | 3,499,567    | 3,947,981    | 2,768,043    | (448,414)   | 731,524     |
| Other Miscellaneous Revenues                                  | 7,630         | 6,335       | 6,870       | 1,295    | 760         | 113,357      | 148,010      | 51,620       | (34,653) | 61,737      | 113,357      | 59,249       | 51,620       | 54,109      | 61,737      |
| Total Operating Revenues                                      | 4,126,860     | 3,813,982   | 5,817,430   | 312,878  | (1,690,570) | 46,246,235   | 46,266,921   | 40,803,338   | (20,686) | 5,442,896   | 46,246,235   | 46,003,744   | 40,803,338   | 242,491     | 5,442,896   |
| Operating Expenses:                                           |               |             |             |          |             |              |              |              |          |             |              |              |              |             |             |
| Personnel                                                     | 1,346,831     | 1,354,029   | 360,683     | 7,198    | (986,148)   | 10,681,433   | 11,143,099   | 11,012,535   | 461,666  | 331,102     | 10,681,433   | 11,561,494   | 11,012,535   | 880,061     | 331,102     |
| Shared Services - General & Administrative                    | 115,503       | 151,983     | 38,559      | 36,480   | (76,945)    | 1,502,430    | 1,528,879    | 1,482,737    | 26,448   | (19,693)    | 1,502,430    | 1,739,417    | 1,482,737    | 236,986     | (19,693)    |
| Utilities                                                     | 22,572        | 174,537     | 83,373      | 151,965  | 60,800      | 1,705,824    | 1,817,804    | 1,815,047    | 111,980  | 109,223     | 1,705,824    | 2,156,620    | 1,815,047    | 450,796     | 109,223     |
| Materials and Supplies                                        | 207,488       | 174,449     | 192,605     | (33,039) | (14,883)    | 1,486,676    | 1,445,556    | 1,393,271    | (41,121) | (93,405)    | 1,486,676    | 1,765,642    | 1,393,271    | 278,966     | (93,405)    |
| Miscellaneous Services                                        | 350,266       | 612,596     | 584,703     | 262,330  | 234,437     | 1,502,837    | 1,717,875    | 1,958,582    | 215,038  | 455,745     | 1,502,837    | 1,979,996    | 1,958,582    | 477,159     | 455,745     |
| Treatment and Transportation                                  | -             | 7,107       | 6,968       | 7,107    | 6,968       | 12,480       | 12,920       | 11,926       | 440      | (554)       | 12,480       | 12,000       | 11,926       | (480)       | (554)       |
| Depreciation and Amortization                                 | 571,282       | 714,702     | 727,396     | 143,420  | 156,114     | 5,973,976    | 6,117,396    | 6,117,396    | 143,420  | 143,420     | 5,973,976    | 5,893,862    | 6,117,396    | (80,114)    | 143,420     |
| Major Maintenance Expenses                                    | 2,030,793     | 2,008,142   | 1,208,000   | (22,651) | (822,793)   | 2,763,527    | 2,726,226    | 4,206,199    | (37,300) | 1,442,672   | 2,763,527    | 2,652,924    | 4,206,199    | (110,603)   | 1,442,672   |
| Other Miscellaneous                                           | -             | -           | -           | -        | -           | 7,540        | 7,540        | -            | -        | (7,540)     | 7,540        | 13,972       | -            | 6,432       | (7,540)     |
| Total Operating Expenses                                      | 4,644,735     | 5,197,545   | 3,202,286   | 552,810  | (1,442,448) | 25,636,723   | 26,517,295   | 27,997,693   | 880,572  | 2,360,970   | 25,636,723   | 27,775,927   | 27,997,693   | 2,139,203   | 2,360,970   |
| Net Operating Profit                                          | (517,875)     | (1,383,562) | 2,615,144   | 865,688  | (3,133,019) | 20,609,511   | 19,749,626   | 12,805,645   | 859,885  | 7,803,866   | 20,609,511   | 18,227,817   | 12,805,645   | 2,381,694   | 7,803,866   |
| Non-Operating Income (Expense)                                |               |             |             |          |             |              |              |              |          |             |              |              |              |             |             |
| Interest Income                                               | 2,833         | 377         | 603         | 2,457    | 2,230       | 5,374        | 2,930        | 162,075      | 2,444    | (156,701)   | 5,374        | 172,960      | 162,075      | (167,587)   | (156,701)   |
| Interest (Expense)                                            | (1,447,166)   | (1,503,880) | (1,036,615) | 56,714   | (410,551)   | (16,657,251) | (16,744,251) | (17,257,071) | 87,000   | 599,820     | (16,657,251) | (17,535,086) | (17,257,071) | 877,835     | 599,820     |
| Other Miscellaneous                                           | -             | -           | -           | -        | -           | -            | -            | -            | -        | -           | -            | -            | -            | -           | -           |
| Net Non-Operating Income (Expense)                            | (1,444,333)   | (1,503,503) | (1,036,011) | 59,170   | (408,321)   | (16,651,877) | (16,741,321) | (17,094,996) | 89,444   | 443,119     | (16,651,877) | (17,362,125) | (17,094,996) | 710,248     | 443,119     |
| Net Income (Loss)                                             | (1,962,207)   | (2,887,066) | 1,579,133   | 924,858  | (3,541,340) | 3,957,634    | 3,008,304    | (4,289,351)  | 949,330  | 8,246,985   | 3,957,634    | 865,692      | (4,289,351)  | 3,091,942   | 8,246,985   |
| CASH FLOW STATEMENT                                           |               |             |             |          |             |              |              |              |          |             |              |              |              |             |             |
| Cash Flows From Operating Activities                          |               |             |             |          |             |              |              |              |          |             |              |              |              |             |             |
| Operating Revenues                                            | 4,126,860     | 3,813,982   | 5,817,430   | 312,878  | (1,690,570) | 46,246,235   | 46,266,921   | 40,803,338   | (20,686) | 5,442,896   | 46,246,235   | 46,003,744   | 40,803,338   | 242,491     | 5,442,896   |
| Operating Expenses (ex D&A)                                   | (4,073,453)   | (4,482,843) | (2,474,890) | 409,390  | (1,598,563) | (19,662,748) | (20,399,899) | (21,880,297) | 737,151  | 2,217,550   | (19,662,748) | (21,882,064) | (21,880,297) | 2,219,317   | 2,217,550   |
| Non-Cash Working Capital Changes                              | 4,148,923     | 3,999,369   | 1,039,642   | 149,554  | 3,109,282   | 2,690,336    | 2,571,259    | (2,486,306)  | 119,078  | 5,176,642   | 2,690,336    | 50,001       | (470,075)    | 2,640,336   | 3,160,412   |
| Net Cash Provided by (Used in) Operating Activities           | 4,202,330     | 3,330,509   | 4,382,182   | 871,822  | (179,852)   | 29,273,823   | 28,438,280   | 16,436,735   | 835,543  | 12,837,088  | 29,273,823   | 24,171,680   | 18,452,965   | 5,102,143   | 10,820,858  |
| Cash Flows From Financing Activities                          |               |             |             |          |             |              |              |              |          |             |              |              |              |             |             |
| Capital Contributions                                         | -             | -           | -           | -        | -           | -            | -            | -            | -        | -           | -            | -            | -            | -           | -           |
| Proceeds New Borrowing                                        | -             | -           | -           | -        | -           | -            | -            | -            | -        | -           | -            | 2,000,000    | -            | (2,000,000) | -           |
| Interest Payments                                             | (5,827,901)   | (5,827,901) | (4,023,972) | (0)      | (1,803,929) | (11,600,444) | (11,600,444) | (10,651,666) | (0)      | (948,778)   | (11,600,444) | (11,565,086) | (10,853,413) | (35,358)    | (747,031)   |
| Principal Payments                                            | (2,514,642)   | (2,514,642) | (882,406)   | -        | (1,632,236) | (2,514,642)  | (2,514,642)  | (882,406)    | -        | (1,632,236) | (2,514,642)  | (2,660,831)  | (2,163,632)  | 146,189     | (351,010)   |
| Net Cash Provided by (Used in) Financing Activities           | (8,342,543)   | (8,342,543) | (4,906,378) | (0)      | (3,436,165) | (14,115,086) | (14,115,086) | (11,534,072) | (0)      | (2,581,014) | (14,115,086) | (12,225,917) | (13,017,045) | (1,889,169) | (1,098,041) |
| Cash Flows from Capital and Related Activities                |               |             |             |          |             |              |              |              |          |             |              |              |              |             |             |
| Non-Operating Income (Expenses)                               | -             | -           | -           | -        | -           | (1,243,524)  | (1,243,524)  | -            | -        | (1,243,524) | (1,243,524)  | (1,230,600)  | (533,258)    | (12,924)    | (710,266)   |
| Capital Expenditures, net                                     | (904,345)     | (904,346)   | (1,081,331) | 1        | 176,986     | (4,825,663)  | (4,925,968)  | (3,028,551)  | 100,305  | (1,797,112) | (4,825,663)  | (6,224,576)  | (3,028,551)  | 1,398,913   | (1,797,112) |
| Net Cash Provided By (Used In) Capital and Related Activities | (904,345)     | (904,346)   | (1,081,331) | 1        | 176,986     | (6,069,187)  | (6,169,492)  | (3,028,551)  | 100,305  | (3,040,636) | (6,069,187)  | (7,455,176)  | (3,561,809)  | 1,385,989   | (2,507,378) |
| Cash Flows From Investing Activities                          |               |             |             |          |             |              |              |              |          |             |              |              |              |             |             |
| Investments Converting To Cash                                | -             | -           | -           | -        | -           | -            | -            | -            | -        | -           | -            | -            | -            | -           | -           |
| Purchased Investments                                         | -             | -           | -           | -        | -           | -            | -            | -            | -        | -           | -            | -            | -            | -           | -           |
| Interest Income                                               | 2,833         | 377         | 603         | 2,457    | 2,230       | 5,374        | 2,930        | 162,075      | 2,444    | (156,701)   | 5,374        | 172,960      | 162,075      | (167,587)   | (156,701)   |
| Net Cash Provided By (Used In) Investing Activities           | 2,833         | 377         | 603         | 2,457    | 2,230       | 5,374        | 2,930        | 162,075      | 2,444    | (156,701)   | 5,374        | 172,960      | 162,075      | (167,587)   | (156,701)   |
| FUND NET CASH FLOWS                                           | (5,041,725)   | (5,916,004) | (1,604,924) | 874,279  | (3,436,800) | 9,094,924    | 8,156,632    | 2,036,187    | 938,292  | 7,058,737   | 9,094,924    | 4,663,547    | 2,036,187    | 4,431,377   | 7,058,737   |
| DEBT SERVICE RATIO                                            |               |             |             |          |             |              |              |              |          |             |              |              |              |             |             |
| Debt Service Ratio (Indenture Based)                          |               |             |             |          |             |              |              |              |          |             |              |              |              |             |             |
| User Charges                                                  | 3,970,829     | 3,611,037   | 4,651,104   | 359,791  | (680,275)   | 42,633,310   | 42,583,934   | 37,983,675   | 49,376   | 4,649,635   | 42,633,310   | 41,996,514   | 37,983,675   | 636,796     | 4,649,635   |
| Operating Expenses (Cash Based)                               | (4,073,453)   | (4,482,843) | (2,474,890) | 409,390  | (1,598,563) | (19,662,748) | (20,399,899) | (21,880,297) | 737,151  | 2,217,550   | (19,662,748) | (21,882,064) | (21,880,297) | 2,219,317   | 2,217,550   |
| Interest Income                                               | 2,833         | 377         | 603         | 2,457    | 2,230       | 5,374        | 2,930        | 162,075      | 2,444    | (156,701)   | 5,374        | 172,960      | 162,075      | (167,587)   | (156,701)   |
| Annual Lease Payment (City)                                   | -             | -           | -           | -        | -           | (1,243,524)  | (1,243,524)  | (533,258)    | -        | (710,266)   | (1,243,524)  | (1,230,600)  | (533,258)    | (12,924)    | (710,266)   |
| Non-Operating Revenues (Expenses)                             | 156,031       | 202,945     | 1,166,327   | (46,913) | (1,010,295) | 3,612,924    | 3,682,987    | 2,819,663    | (70,062) | 793,261     | 3,612,924    | 4,007,230    | 2,819,663    | (394,305)   | 793,261     |
| Cash AAvailable For Debt Service                              | 56,240        | (666,484)   | 3,343,143   | 724,724  | (3,286,903) | 25,345,336   | 24,626,427   | 18,551,858   | 718,909  | 6,793,479   | 25,345,336   | 23,064,040   | 18,551,858   | 2,281,297   | 6,793,479   |
| Interest Paid                                                 | 966,704       | 966,704     | 887,639     | -        | 79,065      | 11,600,444   | 11,600,444   | 10,651,666   | -        | 948,778     | 11,600,444   | 11,565,086   | 10,853,413   | 35,358      | 747,031     |
| Debt Retirement (Principal Payments)                          | 209,554       | 209,554     | 73,534      | -        | 136,020     | 2,514,642    | 2,514,642    | 882,406      | -        | 1,632,236   | 2,514,642    | 2,660,831    | 2,163,632    | (146,189)   | 351,010     |
| Total Debt Service                                            | 1,176,257     | 1,176,257   | 961,173     | -        | 215,084     | 14,115,086   | 14,115,086   | 11,534,072   | -        | 2,581,014   | 14,115,086   | 14,225,917   | 13,017,045   | (110,831)   | 1,098,041   |
| Debt Service Ratio                                            | 0.05          | (0.57)      | 3.48        | 0.62     | (3.43)      | 1.80         | 1.74         | 1.61         | 0.05     | 0.19        | 1.80         | 1.62         | 1.43         | 0.17        | 0.37        |

**LEHIGH COUNTY AUTHORITY**  
**VARIANCE ANALYSIS - MONTH**  
**For the Period Ended December 31, 2021**

**STATEMENTS OF ACTIVITIES**

**Operating Revenues:**

User Charges  
Connection & System Charges  
Other Miscellaneous Revenues

**Total Operating Revenues**

**Operating Expenses:**

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

**Total Operating Expenses**

**Net Operating Profit**

**Non-Operating Income (Expense)**

Interest Income  
Interest (Expense)  
Other Miscellaneous

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

**Net Income (Loss)**

**CASH FLOW STATEMENT**

**Cash Flows From Operating Activities**

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

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

**Cash Flows From Financing Activities**

Capital Contributions  
Proceeds New Borrowing  
Interest Payments  
Principal Payments

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

**Cash Flows from Capital and Related Activities**

Non-Operating Income (Expenses)  
Capital Expenditures, net

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

**Cash Flows From Investing Activities**

Investments Converting To Cash  
Purchased Investments  
Interest Income

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

**FUND NET CASH FLOWS**

| City Division      |                    |                |                                                                             |
|--------------------|--------------------|----------------|-----------------------------------------------------------------------------|
| Actual             | Q4 FC              | FC Var         | Comments                                                                    |
| 3,970,829          | 3,611,037          | 359,791        | Higher municipal charges                                                    |
| 148,401            | 196,609            | (48,208)       |                                                                             |
| 7,630              | 6,335              | 1,295          |                                                                             |
| <b>4,126,860</b>   | <b>3,813,982</b>   | <b>312,878</b> | <b>Higher user charges with a partial offset from lower system revenues</b> |
| 1,346,831          | 1,354,029          | 7,198          |                                                                             |
| 115,503            | 151,983            | 36,480         |                                                                             |
| 22,572             | 174,537            | 151,965        | Lower utilities costs                                                       |
| 207,488            | 174,449            | (33,039)       |                                                                             |
| 350,266            | 612,596            | 262,330        | Lower maintenance services                                                  |
| -                  | 7,107              | 7,107          |                                                                             |
| 571,282            | 714,702            | 143,420        |                                                                             |
| 2,030,793          | 2,008,142          | (22,651)       |                                                                             |
| -                  | -                  | -              |                                                                             |
| <b>4,644,735</b>   | <b>5,197,545</b>   | <b>552,810</b> | <b>Lower services and utilities along with lower depreciation expense</b>   |
| <b>(517,875)</b>   | <b>(1,383,562)</b> | <b>865,688</b> | <b>Higher operating revenue along with lower operating expense</b>          |
| 2,833              | 377                | 2,457          |                                                                             |
| (1,447,166)        | (1,503,880)        | 56,714         |                                                                             |
| -                  | -                  | -              |                                                                             |
| <b>(1,444,333)</b> | <b>(1,503,503)</b> | <b>59,170</b>  | <b>Lower interest expense</b>                                               |
| <b>(1,962,207)</b> | <b>(2,887,066)</b> | <b>924,858</b> | <b>Higher net operating income along with favorable financial activity</b>  |
| 4,126,860          | 3,813,982          | 312,878        |                                                                             |
| (4,073,453)        | (4,482,843)        | 409,390        |                                                                             |
| 4,148,923          | 3,999,369          | 149,554        |                                                                             |
| <b>4,202,330</b>   | <b>3,330,509</b>   | <b>871,822</b> | <b>Higher operating revenues and lower operating expenses</b>               |
| -                  | -                  | -              |                                                                             |
| -                  | -                  | -              |                                                                             |
| (5,827,901)        | (5,827,901)        | (0)            |                                                                             |
| (2,514,642)        | (2,514,642)        | -              |                                                                             |
| <b>(8,342,543)</b> | <b>(8,342,543)</b> | <b>(0)</b>     | <b>Lower debt service</b>                                                   |
| -                  | -                  | -              |                                                                             |
| (904,345)          | (904,346)          | 1              | Capex in line with FC                                                       |
| <b>(904,345)</b>   | <b>(904,346)</b>   | <b>1</b>       |                                                                             |
| -                  | -                  | -              |                                                                             |
| -                  | -                  | -              |                                                                             |
| 2,833              | 377                | 2,457          |                                                                             |
| <b>2,833</b>       | <b>377</b>         | <b>2,457</b>   |                                                                             |
| <b>(5,041,725)</b> | <b>(5,916,004)</b> | <b>874,279</b> | <b>Higher cash from operations and lower debt service</b>                   |

LEHIGH COUNTY AUTHORITY  
CASH & INVESTMENT SUMMARY  
For the Period Ended December 31, 2021

|                            | Suburban Water    |               |             |             | Suburban Wastewater |               |             |             | City Division     |               |             |             | Total             |               |             |             |
|----------------------------|-------------------|---------------|-------------|-------------|---------------------|---------------|-------------|-------------|-------------------|---------------|-------------|-------------|-------------------|---------------|-------------|-------------|
|                            | 12/31/2021 Actual | 2021 Forecast | 2021 Budget | 2020 Actual | 12/31/2021 Actual   | 2021 Forecast | 2021 Budget | 2020 Actual | 12/31/2021 Actual | 2021 Forecast | 2021 Budget | 2020 Actual | 12/31/2021 Actual | 2021 Forecast | 2021 Budget | 2020 Actual |
| Cash                       |                   |               |             |             |                     |               |             |             |                   |               |             |             |                   |               |             |             |
| Operating                  |                   |               |             |             |                     |               |             |             |                   |               |             |             |                   |               |             |             |
| Unrestricted               | 4,358,417         | 3,880,717     | 1,173,430   | 5,206,224   | 455,546             | 4,761,445     | 4,315,728   | (217,015)   | 6,779,584         | 6,029,686     | 7,253,120   | 1,378,275   | 11,283,271        | 14,671,848    | 12,742,279  | 6,367,484   |
| Restricted                 | -                 | -             | 2,532,181   | -           | -                   | 272           | 0           | 272         | 25,794,847        | 23,916,139    | 23,992,616  | 23,992,616  | 25,794,847        | 23,916,411    | 26,524,797  | 23,992,888  |
| Total Operating            | 4,358,417         | 3,880,717     | 3,705,611   | 5,206,224   | 455,546             | 4,761,717     | 4,315,728   | (216,743)   | 32,574,431        | 29,945,825    | 31,245,736  | 25,370,891  | 37,078,119        | 38,588,259    | 39,267,076  | 30,360,372  |
| Capital                    |                   |               |             |             |                     |               |             |             |                   |               |             |             |                   |               |             |             |
| Unrestricted               | 319,718           | 415,100       | 2,037,248   | 2,037,248   | 5,955,385           | 1,955,385     | 7,672,019   | 7,672,019   | 3,022,601         | 2,822,486     | 169,980     | 169,980     | 9,297,704         | 5,192,971     | 9,879,247   | 9,879,247   |
| Restricted                 | -                 | -             | -           | -           | 338,360             | 337,932       | 337,932     | 337,932     | 7,500,035         | 7,500,052     | 7,500,000   | 7,500,000   | 7,838,396         | 7,837,984     | 7,837,932   | 7,837,932   |
| Total Capital              | 319,718           | 415,100       | 2,037,248   | 2,037,248   | 6,293,745           | 2,293,317     | 8,009,951   | 8,009,951   | 10,522,636        | 10,322,538    | 7,669,980   | 7,669,980   | 17,136,099        | 13,030,955    | 17,717,179  | 17,717,179  |
| Other Restricted           |                   |               |             |             |                     |               |             |             |                   |               |             |             |                   |               |             |             |
| Debt Reserves              | 1,648,569         | 1,626,400     | 1,043,094   | 1,858,493   | -                   | -             | -           | -           | 27,493,396        | 29,383,809    | 27,691,581  | 28,454,669  | 29,141,965        | 31,010,209    | 28,734,675  | 30,313,162  |
| Escrow                     | -                 | -             | -           | -           | -                   | -             | -           | -           | -                 | -             | -           | -           | -                 | -             | -           | -           |
| Total Other Restricted     | 1,648,569         | 1,626,400     | 1,043,094   | 1,858,493   | -                   | -             | -           | -           | 27,493,396        | 29,383,809    | 27,691,581  | 28,454,669  | 29,141,965        | 31,010,209    | 28,734,675  | 30,313,162  |
| Total Cash                 | 6,326,704         | 5,922,217     | 6,785,954   | 9,101,965   | 6,749,291           | 7,055,034     | 12,325,679  | 7,793,208   | 70,590,464        | 69,652,172    | 66,607,297  | 61,495,540  | 83,356,183        | 82,629,423    | 85,718,930  | 78,390,713  |
| Investments                |                   |               |             |             |                     |               |             |             |                   |               |             |             |                   |               |             |             |
| Operating                  |                   |               |             |             |                     |               |             |             |                   |               |             |             |                   |               |             |             |
| Unrestricted               | 1,974,940         | 1,497,825     | 2,136,930   | 1,497,825   | -                   | 5,387,746     | 6,757,276   | 5,387,746   | -                 | -             | -           | -           | 1,974,940         | 6,885,571     | 8,894,206   | 6,885,571   |
| Restricted                 | -                 | -             | -           | -           | -                   | -             | -           | -           | -                 | -             | -           | -           | -                 | -             | -           | -           |
| Total Operating            | 1,974,940         | 1,497,825     | 2,136,930   | 1,497,825   | -                   | 5,387,746     | 6,757,276   | 5,387,746   | -                 | -             | -           | -           | 1,974,940         | 6,885,571     | 8,894,206   | 6,885,571   |
| Capital                    |                   |               |             |             |                     |               |             |             |                   |               |             |             |                   |               |             |             |
| Unrestricted               | 1,000,184         | 1,000,000     | 1,000,000   | 1,000,000   | 6,977,548           | 1,000,000     | 1,000,000   | 1,000,000   | -                 | -             | -           | -           | 7,977,731         | 2,000,000     | 2,000,000   | 2,000,000   |
| Restricted                 | -                 | -             | -           | -           | -                   | -             | -           | -           | -                 | -             | -           | -           | -                 | -             | -           | -           |
| Total Capital              | 1,000,184         | 1,000,000     | 1,000,000   | 1,000,000   | 6,977,548           | 1,000,000     | 1,000,000   | 1,000,000   | -                 | -             | -           | -           | 7,977,731         | 2,000,000     | 2,000,000   | 2,000,000   |
| Other Restricted           |                   |               |             |             |                     |               |             |             |                   |               |             |             |                   |               |             |             |
| Debt Reserves              | -                 | 244,924       | -           | 244,924     | -                   | -             | -           | -           | -                 | -             | -           | -           | -                 | 244,924       | -           | 244,924     |
| Escrow                     | 295,372           | 4,210,752     | 4,236,279   | 4,210,752   | -                   | -             | -           | -           | -                 | -             | -           | -           | 295,372           | 4,210,752     | 4,236,279   | 4,210,752   |
| Total Other Restricted     | 295,372           | 4,455,676     | 4,236,279   | 4,455,676   | -                   | -             | -           | -           | -                 | -             | -           | -           | 295,372           | 4,455,676     | 4,236,279   | 4,455,676   |
| Total Investments          | 3,270,496         | 6,953,501     | 7,373,209   | 6,953,501   | 6,977,548           | 6,387,746     | 7,757,276   | 6,387,746   | -                 | -             | -           | -           | 10,248,043        | 13,341,247    | 15,130,485  | 13,341,247  |
| Total Cash and Investments | 9,597,200         | 12,875,718    | 14,159,163  | 16,055,466  | 13,726,838          | 13,442,780    | 20,082,955  | 14,180,954  | 70,590,464        | 69,652,172    | 66,607,297  | 61,495,540  | 93,604,227        | 95,970,670    | 100,849,415 | 91,731,960  |
| Summary                    |                   |               |             |             |                     |               |             |             |                   |               |             |             |                   |               |             |             |
| Cash                       |                   |               |             |             |                     |               |             |             |                   |               |             |             |                   |               |             |             |
| Unrestricted               | 4,678,135         | 4,295,817     | 3,210,679   | 7,243,472   | 6,410,931           | 6,716,830     | 11,987,747  | 7,455,004   | 9,802,185         | 8,852,172     | 7,423,100   | 1,548,255   | 20,580,975        | 19,864,819    | 22,621,526  | 16,246,731  |
| Restricted                 | 1,648,569         | 1,626,400     | 3,575,275   | 1,858,493   | 338,360             | 338,204       | 337,932     | 338,204     | 60,788,279        | 60,800,000    | 59,184,197  | 59,947,285  | 62,775,208        | 62,764,604    | 63,097,404  | 62,143,982  |
| Total Cash                 | 6,326,704         | 5,922,217     | 6,785,954   | 9,101,965   | 6,749,291           | 7,055,034     | 12,325,679  | 7,793,208   | 70,590,464        | 69,652,172    | 66,607,297  | 61,495,540  | 83,356,183        | 82,629,423    | 85,718,930  | 78,390,713  |
| Investments                |                   |               |             |             |                     |               |             |             |                   |               |             |             |                   |               |             |             |
| Unrestricted               | 2,975,123         | 2,497,825     | 3,136,930   | 2,497,825   | 6,977,548           | 6,387,746     | 7,757,276   | 6,387,746   | -                 | -             | -           | -           | 9,952,671         | 8,885,571     | 10,894,206  | 8,885,571   |
| Restricted                 | 295,372           | 4,455,676     | 4,236,279   | 4,455,676   | -                   | -             | -           | -           | -                 | -             | -           | -           | 295,372           | 4,455,676     | 4,236,279   | 4,455,676   |
| Total Investments          | 3,270,496         | 6,953,501     | 7,373,209   | 6,953,501   | 6,977,548           | 6,387,746     | 7,757,276   | 6,387,746   | -                 | -             | -           | -           | 10,248,043        | 13,341,247    | 15,130,485  | 13,341,247  |
| Total Cash and Investments | 9,597,200         | 12,875,718    | 14,159,163  | 16,055,466  | 13,726,838          | 13,442,780    | 20,082,955  | 14,180,954  | 70,590,464        | 69,652,172    | 66,607,297  | 61,495,540  | 93,604,227        | 95,970,670    | 100,849,415 | 91,731,960  |

Presented: February 28, 2022

| Critical Activities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | System         | Description                                  | Jan-22          | 2022 Totals     | 2021 Totals     | Permit                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------------------------|-----------------|-----------------|-----------------|-----------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                                              | Daily Avg (MGD) | Daily Avg (MGD) | Daily Avg (MGD) | Daily Max (MGD)             |
| Water Production                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Allentown      | Total                                        | 21.79           | 21.79           | 22.00           | 39.0                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                | Schantz Spring                               | 6.50            | 6.50            | 7.29            | 9.0                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                | Crystal Spring                               | 3.83            | 3.83            | 3.75            | 4.0                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                | Little Lehigh Creek                          | 11.42           | 11.42           | 10.84           | 30.0                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                | Lehigh River                                 | 0.03            | 0.03            | 0.11            | 28.0                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Central Lehigh | Total                                        | 10.26           | 10.26           | 10.98           | 19.04 MGD Avg               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                | Feed from Allentown                          | 7.25            | 7.25            | 7.29            | 7.0 MGD Avg<br>10.5 MGD Max |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                | Well Production (CLD)                        | 3.01            | 3.01            | 3.69            | 8.54 MGD Avg                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                | Sum of all (12) other Suburban Water Systems | 0.12            | 0.12            | 0.13            | 1.71 Sum of all wells       |
| Wastewater Treatment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                | Kline's Island                               | 29.27           | 29.27           | 32.27           | 40.0                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                | Pretreatment Plant                           | 4.42            | 4.42            | 5.17            | 5.75 (design capacity)      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                | Sum of all (5) other Suburban WW Systems     | 0.17            | 0.17            | 0.21            | 0.36                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                                              |                 |                 |                 |                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                                              | Jan-22          | 2022 Totals     | 2021 Totals     | 2020 Totals                 |
| Precipitation Totals (inches)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |                                              | 2.40            | 2.4             | 44.67           | 60.66                       |
| Compliance Reports Submitted to Allentown                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |                                              | 28              | 28              | 280             | 278                         |
| Notices of Violation (NOVs)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                | (Allentown + Suburban)                       | 0               | 0               | 3               | 1                           |
| Sanitary Sewer Overflows (SSOs)/Bypasses                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                | (Allentown + Suburban)                       | 1               | 1               | 26              | 37                          |
| Main Breaks Repaired                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                | Allentown                                    | 8               | 8               | 20              | 20                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                | Suburban                                     | 1               | 1               | 14              | 12                          |
| Customer Service Phone Inquiries                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                | (Allentown + Suburban)                       | 971             | 971             | 15,857          | 22,992                      |
| Water Shutoffs for Non-Payment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                | (Allentown + Suburban)                       | 103             | 103             | 1,773           | 1,956                       |
| Injury Accidents                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                | (Allentown + Suburban)                       | 1               | 1               | 8               | 10                          |
| Emergency Declarations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                | Allentown                                    | 1@ \$213,593.70 | 0               | 0               | (2)@ \$152,053              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                | Suburban                                     | 0               | 0               | (1) @ \$48,000  | (1) @ \$19,335              |
| <b>Significant Repairs/Upgrades:</b> There are currently four (4) siphons on the Western Lehigh Interceptor that cross underneath the Little Lehigh Creek, with two siphon chambers at each location. The concrete condition within the chambers has grown progressively worse over time from exposure to Hydrogen Sulfide. During January, (5) of the (8) chambers were lined in an attempt to limit the possibility of further H2S degradation. The remaining (3) chambers will be lined in March when better weather conditions and accessibility exist. |                |                                              |                 |                 |                 |                             |
| <b>Description of NOVs and/or SSOs:</b> There were (0) NOVs that were issued to LCA during January, 2022. There were (0) SSOs during that time as well. On January 19-20, 2022, a bypass occurred at the Lynn Township WWTP. During rounds, an operator found approximately 16,500 gallons of mixed liquor had been released onto the ground. The wasting air lift valves never returned to closed, causing the liquid to fill the sludge holding tank until it overflowed. A high level alarm float was installed as a precautionary measure.              |                |                                              |                 |                 |                 |                             |
| <b>Other Highlights:</b> The 500,000 gallon water storage tank at Schantz Spring was put back on-line during January. The tank had been taken out of service late in 2021 for internal renovations that included blasting and painting.                                                                                                                                                                                                                                                                                                                     |                |                                              |                 |                 |                 |                             |