

COMPREHENSIVE ANNUAL FINANCIAL REPORT
FOR THE YEARS ENDED
DECEMBER 31, 2019 AND 2018
LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA

PREPARED BY:

EDWARD C. KLEIN
CHIEF FINANCIAL OFFICER

LINDA M. EBERHARDT
ACCOUNTING SUPERVISOR

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA**

**COMPREHENSIVE ANNUAL FINANCIAL REPORT
For the Years Ended December 31, 2019 and 2018**

TABLE OF CONTENTS

	<u>Page No.</u>
INTRODUCTORY SECTION	
Letter of Transmittal	1-7
GFOA Certificate of Achievement	8
Organizational Chart	9
Principal Authority Officials	10
Lehigh County Authority Water Service Area	11
Lehigh County Authority Wastewater Service Area	12
 FINANCIAL SECTION	
INDEPENDENT AUDITOR'S REPORT	13-15
MANAGEMENT DISCUSSION AND ANALYSIS	16-25
FINANCIAL STATEMENTS:	
Statements of Net Position	26-27
Statements of Revenues, Expenses and Changes in Net Position	28
Statements of Cash Flows	29-30
Statements of Fiduciary Net Position	31
Statements of Changes in Fiduciary Net Position	32
Notes to Financial Statements	33-74
REQUIRED SUPPLEMENTARY INFORMATION:	
Schedule of Changes in the Authority's Net Pension Liability and Related Ratios	75
Schedule of Authority Contributions Pension Plan	76
Schedule of Changes in the Suburban Net OPEB Liability and Related Ratios	77
Schedule of Authority Contributions Suburban OPEB Plan	78
Schedule of Investment Returns Suburban OPEB Plan	79
Schedule of Changes in the City Division Total OPEB Liability and Related Ratios	80
OTHER SUPPLEMENTARY INFORMATION:	
Combining Schedule of Revenues, Expenses and Changes in Net Position – Suburban Wastewater Fund	81

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA**

**COMPREHENSIVE ANNUAL FINANCIAL REPORT
For the Years Ended December 31, 2019 and 2018**

TABLE OF CONTENTS (continued)

	<u>Page No.</u>
SUPPLEMENTAL SCHEDULES:	
Schedule of Cash and Cash Equivalents	82
Combined Schedule of Certificates of Deposit – All Funds	83-84
Schedule of Cash Receipts and Disbursements and Changes in Suburban Water Fund Account Balances – Trustee Accounts Fixed Rate Water Revenue Bonds, 2001, 2010, 2015 and 2017 Series	85
Budgetary Comparison Schedule	86
 STATISTICAL SECTION	
 FINANCIAL TRENDS:	
Net Assets/Net Position By Component	87
Changes In Net Assets/Net Position	88
 REVENUE CAPACITY:	
Revenues by Source	89
Operating Expenses by Function	90
Nonoperating Expenses	91
Capital Contributions By Source	92
Schedule of Water Capital Recovery Fees	93
Schedule of Wastewater Capital Recovery Fees	94
Schedule of Water Rates and Charges – Suburban Division	95
Schedule of Water Rates and Charges – City Division	96
Schedule of Wastewater Rates and Charges – Suburban Division Collector Systems	97
Schedule of Wastewater Rates and Charges – Suburban Division Interceptor Systems	98
Schedule of Wastewater Rates and Charges – City Division	99
Comparative Water Charges	100
Ten Largest Industrial & Commercial Water Customers	101
Water Billing Collections – Suburban and City Divisions	102
 DEBT CAPACITY:	
Ratios of Outstanding Debt by Type – Suburban Division Water System	103
Ratios of Outstanding Debt by Type – Suburban Division Wastewater Systems	104
Ratios of Outstanding Debt by Type – City Division	105
Summary of Debt Service	106
Debt Service Coverage – Suburban Water System	107
Schedule of Overlapping Debt	108

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA**

**COMPREHENSIVE ANNUAL FINANCIAL REPORT
For the Years Ended December 31, 2019 and 2018**

TABLE OF CONTENTS (continued)

	<u>Page No.</u>
DEMOGRAPHIC AND ECONOMIC:	
Major Employers	109
Economic and Social Indicators	110
Municipal Population Trends	111
Comparative Population Statistics	112
New Industrial, Commercial and Institutional Customers – Suburban Div.	113
New Industrial, Commercial and Institutional Customers – City Div.	114
Major Industrial and Commercial Complexes	115
Housing Growth Trends	116
Average Annual Unemployment Rates	117
Personal Income	118
Civilian Labor Force	119
OPERATING INFORMATION:	
Water Sales and Customer Growth	120
Water Supply Sources, Demand and Capacity Information	121-122
Wastewater Collector System Growth and Billable Flow	123
Western Lehigh Interceptor Average Daily Wastewater Flow	124
Little Lehigh Relief Interceptor Billable Flows	125
Operating and Capital Indicators	126
Number of Employees by Fund	127
OTHER INFORMATION:	
Profile of Authority Management Staff	128-132
Profile of Authority Board Members	133-135
Strategic Plan	136-143
Acquisitions/Leases/Operating Contracts	144

INTRODUCTORY SECTION



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June 30, 2020

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

It is our pleasure to present the 2019 Lehigh County Authority (LCA or Authority) Comprehensive Annual Financial Report which includes the results of 2019 operations and activities.

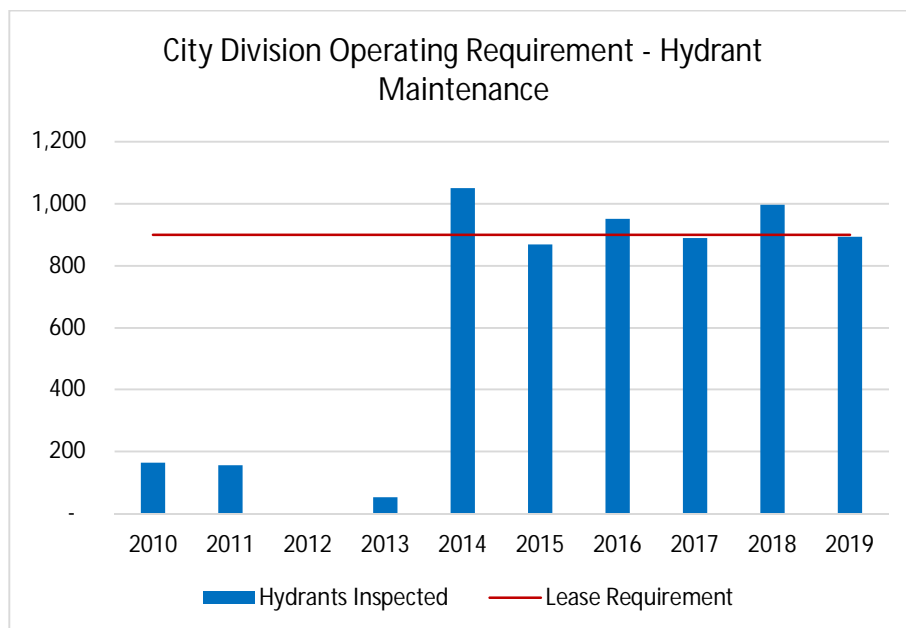
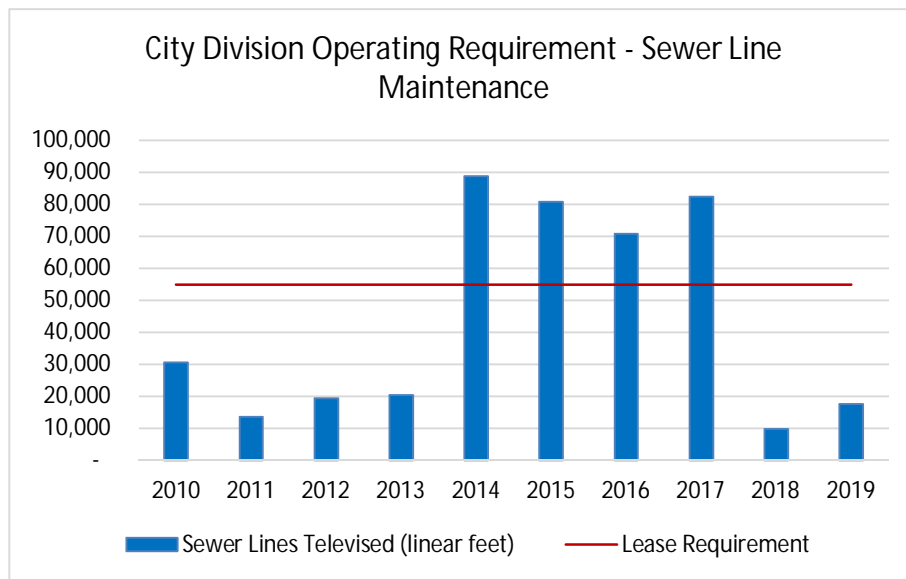
Results from 2019 reflect the sixth full year of operation of the City of Allentown water and wastewater systems (City Systems) under a 50-year Concession Lease (Concession) which commenced on August 8, 2013. Concession activities for the year included a number of significant items:

- The 2019 bond coverage was 163%, exceeding the 120% requirement under the 2013 Concession Bond Financing;¹
- LCA made capital improvements of \$4,399,156 to the City System. There were no main replacement projects in 2019 but there was restoration work on main replacement projects completed in 2018. Key projects included \$1.3m invested to replace the Wastewater Treatment Plant electrical substations and an additional \$0.6m on general improvements to the water system.
- The City distribution and collections systems faced their sixth 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.

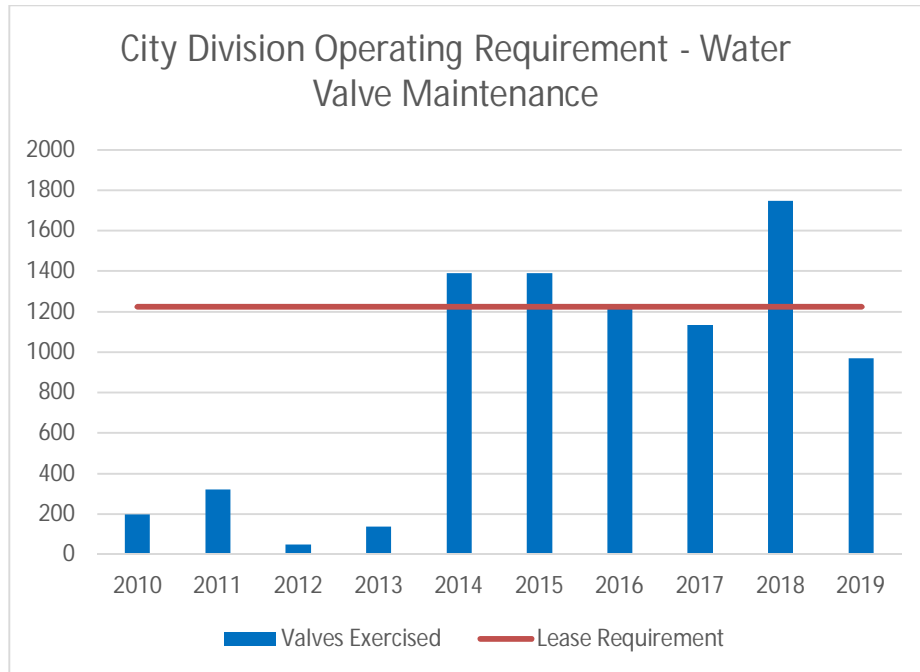
(Note that the performance levels shown on these graphs indicate actual tasks completed within the calendar year and that full compliance with the Concession operating standards has been met through a combination of both current year and prior-year activity totals, which accumulate to achieve compliance.)

¹ While the statement of Revenues, Expenses and Changes in Net Position indicates Interest Expense of \$19,386,584, the present value of future interest payable (\$5,653,215) and amortized bond premium (\$316,621) were both excluded from the calculation of 2019 interest expense for bond coverage calculation purposes. The 2019 interest expense used for bond coverage calculation was \$13,416,748.

Every drop matters. Every customer counts.



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In the Suburban Division, capital improvements totaled \$19,436,491 with \$8.7m expended on the water system and \$10.7m on the wastewater system.

On an organization-wide basis LCA achieved the following in 2019:

- In 2019, there was continued focus and prioritization of the organization-wide strategic goals that were developed in 2016 around financial viability, environmental compliance, asset management, and workforce development. These performance areas continue to be key result areas as we look to realign the organization to the mission and vision of the Authority.
- As part of the environmental compliance goal, the Authority continued to lead regional efforts to develop a collaborative approach among local municipal partners to develop an integrated plan to address sanitary sewer overflows. In addition, outreach to state regulatory agencies was conducted in 2019 to support this effort and increase understanding of the regional challenges regarding provision of wastewater services in Lehigh County.
- We continued the overall advancement of the use of technology throughout the entire organization with an increased focus on GIS and mobile applications for the field along with enhancement in the mobility of administrative services.
- In June 2019, the Lehigh County Board of Commissioners voted unanimously to extend the Authority's term of existence by 43 years after detailed discussions regarding the Authority's

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financial performance and long-term capital financing strategy. The 43-year extension was requested by Authority Board to allow for the exploration of financing alternatives to fund several large upcoming regional sewer capacity projects that may require extended financing terms.

- Finally, 2019 continued another year of difficult but necessary conversations about the Authority's financial performance under the Concession. We continue to evaluate options to ensure financial sustainability in this fund.

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 2019 results, additional information is included in Management's Discussion and Analysis on pages 16-25 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 2019 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 46,523 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 46,483 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 2,890 customers as of December 31, 2019. 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, 2019, the Suburban Water System serves 22,901 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 Chief Executive Officer 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

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budget) is the individual budget within each fund. Budgets for all funds are adopted on a basis consistent with generally accepted accounting principles.

ECONOMIC CONDITIONS

The Lehigh Valley saw unfavorable economic conditions in 2019, with the unemployment rate increasing from 4.5% as of year-end 2018 to 5.0% as of year-end 2019 in Lehigh County. 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.

This 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 5.0% increase was implemented in 2019, 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 2019 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 2019 was 5.1%.

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 Comprehensive Annual Financial Report (CAFR) for the year ended December 31, 2018. The Certificate of Achievement is a prestigious national award, recognizing conformance with highest standards for preparation of state and local government financial reports.
- The City Water Filtration Plant was awarded the Area Wide Optimization Award and Directors Award from the Association of State Drinking Water Administrators and the American Water Works Association, respectively, (for the twelfth consecutive year). These awards recognize the staff's outstanding efforts towards optimizing filter plant performance.

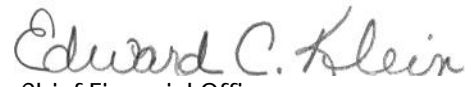
Acknowledgements: We recognize and thank LCA employees and the Board for their focus and dedication which underlie our 2019 accomplishments. We also thank the Board for its continued encouragement and support in planning, operating and managing the Authority's affairs in a forward looking and business-like 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

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**Certificate of
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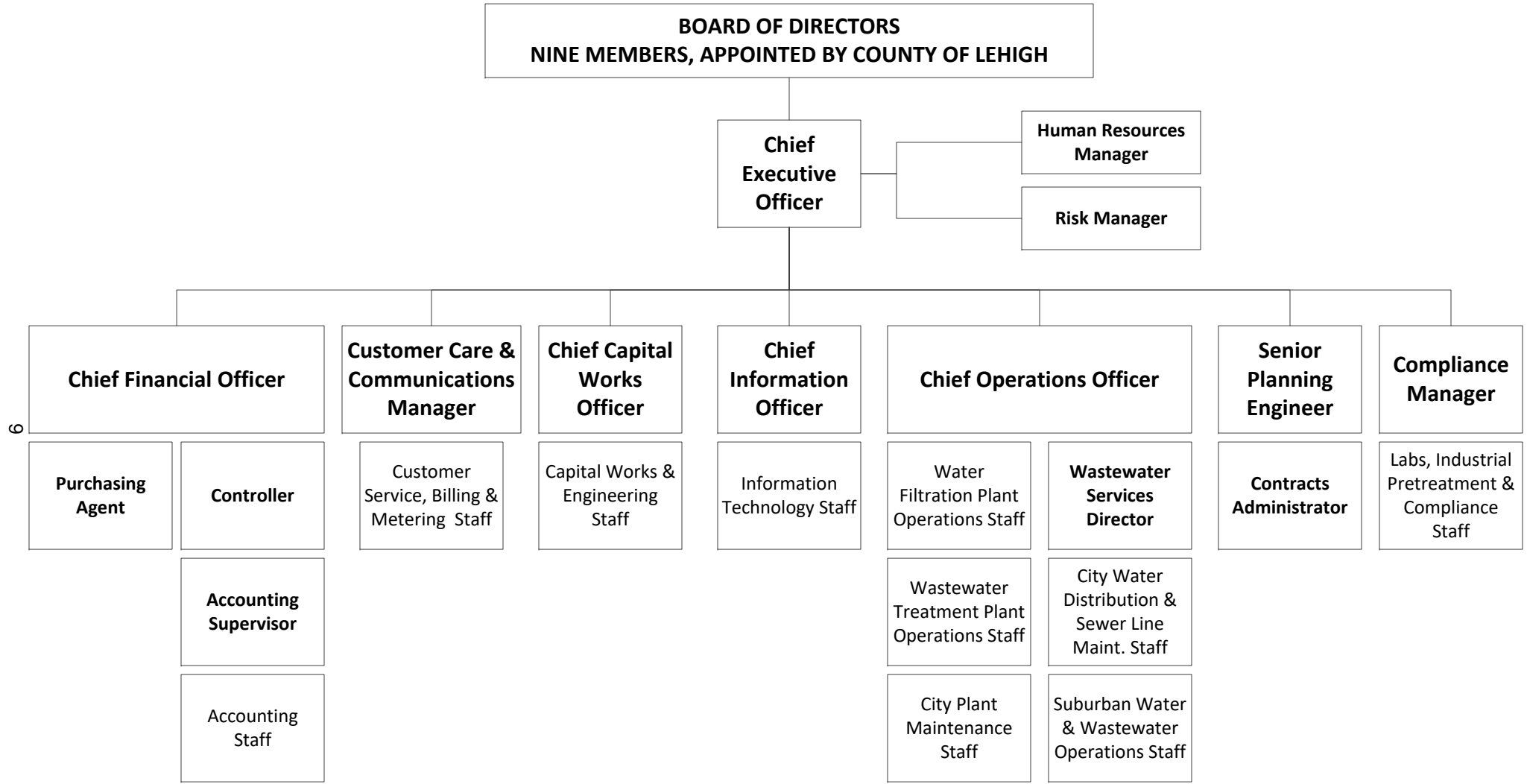
For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

December 31, 2018

Christopher P. Morill

Executive Director/CEO

Lehigh County Authority
Organizational Chart – December 31, 2019



**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA
LIST OF PRINCIPAL OFFICIALS
December 31, 2019**

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

Patricia Mandes
Chief Compliance
Officer (Retired)

Bradford E. Landon
Solicitor (Retired)

Susan L. Sampson
Customer Care &
Communications Manager

Andrew D. Moore
Compliance Manager

Philip M. DePoe
Interim Senior
Planning Engineer

Kathy A. Martin
Human Resources
Manager

Kevin German
Risk Manager

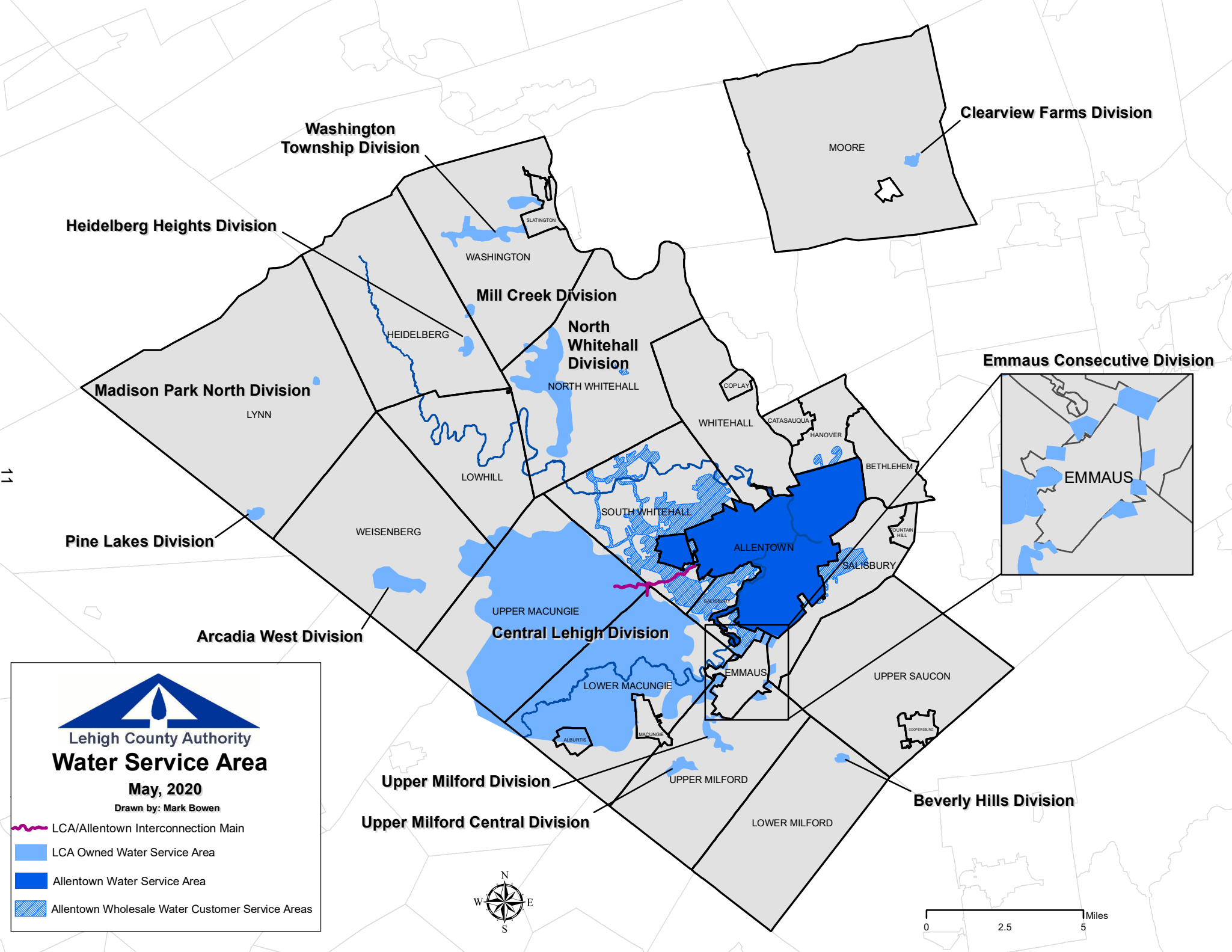
PROFESSIONAL SERVICES

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

Heidelberg Heights Division

HEIDELBERG

Lynn Township System

LYNN

Sand Spring System

NORTH WHITEHALL

LOWHILL

Lowhill Township System

WEISENBERG

Weisenberg Township System

Arcadia West System

SOUTH WHITEHALL

WHITEHALL

CATASAUQUA

HANOVER

BETHLEHEM

MOUNTAIN HILL

SALISBURY

ALLENTOWN

UPPER MACUNGIE

LCA Wastewater Treatment Plant

LOWER MACUNGIE

EMMAUS

UPPER SAUCON

Upper Milford System

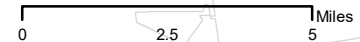
UPPER MILFORD

LOWER MILFORD

Western Lehigh Service Area

(Transmission from Municipalities to Allentown for Treatment)





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



**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

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

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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, 2019 and 2018, 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.



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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, 2019 and 2018, 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 2019 Lehigh County Authority adopted the provisions of GASB Statement No. 95 "*Postponement of the Effective Dates of Certain Authoritative Guidance*". Our opinion is not modified with respect to this matter.

Emphasis of Matter

As discussed in Note 19 to the financial statements, subsequent events may have a significant impact on the operations of Lehigh County Authority. Management has determined that it is not possible to predict the eventual outcome of the subsequent event. Our opinion is not modified with respect to this matter.

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 25 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 75 through 80 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.



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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 Axlerod LLC

ZELENKOFSCHE AXELROD LLC

Harrisburg, Pennsylvania
May 27, 2020



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610-398-2503 * FAX 610-398-8413 * email: service@lehighcountyauthority.org

INTRODUCTION

Lehigh County Authority is pleased to present its Annual Financial Report for the year ended December 31, 2019. 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.

The Authority adopted the provisions of GASB 75 on a prospective basis; therefore the effects of the adoption of GASB 75 are reflected only in the 2019 and 2018 amounts.

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

Authority Activities and Highlights

2019 marked the sixth full year of operations for the Authority's City Division, which 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.

The assets and deferred outflows of the Authority exceeded its liabilities and deferred inflows at the close of 2019 by \$145,111,516 (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 (\$24,719,524).

The Authority's net position decreased in 2019 by \$1,934,160, with a decrease in the City fund of \$4,130,921 and a decrease in the Suburban Wastewater fund of \$473,333 offset partly by an increase in the Suburban Water fund of \$2,670,094.

Operating revenues increased from \$59,507,754 in 2018 to \$61,088,459 in 2019 due to increased Suburban Water Revenues along with increased City Revenues while Suburban Wastewater Revenues were relatively flat compared to last year. Operating expenses increased from \$46,926,940 in 2018 to \$48,768,093 in 2019 due to inflationary effects on employee costs and purchased costs.

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. Thus, revenues and expenses are reported in this statement for some 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 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 between two 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>2019</u>	<u>2018</u>	<u>2017</u>
Current Assets, Unrestricted	\$ 22,585,294	\$ 9,452,534	\$ 17,134,573
Non-current Assets:			
Restricted	46,798,951	57,849,011	49,338,050
Capital Assets, Net	835,697	999,453	1,071,187
Other Assets, Net	<u>244,343,059</u>	<u>246,854,949</u>	<u>248,035,503</u>
Total Assets	314,563,001	315,155,947	315,579,313
Deferred Outflows of Resources	<u>3,185,591</u>	<u>1,891,432</u>	<u>2,382,072</u>
Total Assets & Deferred Outflows	\$ 317,748,592	\$ 317,047,379	\$ 317,961,385
Current Liabilities	\$ 4,466,618	\$ 5,143,326	\$ 22,369,076
Non-current Liabilities	<u>368,670,338</u>	<u>361,819,727</u>	<u>339,772,403</u>
Total Liabilities	373,136,956	366,963,053	362,141,479
Deferred Inflows of Resources	<u>-</u>	<u>1,341,769</u>	<u>-</u>
Total Liabilities & Deferred Inflows	\$ 373,136,956	\$ 368,304,822	\$ 362,141,479
Net Position:			
Net Investment in Capital Assets	\$ 835,697	\$ 999,453	\$ 936,731
Unrestricted	<u>(56,224,061)</u>	<u>(52,256,896)</u>	<u>(45,116,825)</u>
Total Net Position	<u>\$ (55,388,364)</u>	<u>\$ (51,257,443)</u>	<u>\$ (44,180,094)</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 (77.9%). 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 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 receivable 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 primarily due to a reduction in trade payables with a partial offset from higher current portion of long-term debt.
- Noncurrent liabilities in 2019 increased by \$6,850,611 from 2018. The 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.
- Current and noncurrent assets other than capital assets and other assets in 2018 increased \$828,922, or 1.2%. This increase was primarily due to an increase in the amount of restricted balances mostly offset by a reduction in net receivables.
- Capital assets, net and other assets, net in 2018 decreased by \$1,252,288, which was the net decrease after considering new acquisitions offset by depreciation and amortization of \$5,864,433.
- Current liabilities in 2018 decreased by \$17,225,750 from 2017. This decrease was primarily due to the debt payment on the Series C Bonds which occurred in 2018.
- Noncurrent liabilities in 2018 increased by \$22,047,324 from 2017. The increase was primarily due to the refunding of the Series C Bonds.

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:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Current assets, unrestricted	\$ 33,850,702	\$ 39,231,844	\$ 34,869,626
Non-current Assets:			
Restricted	8,149,486	14,613,449	21,445,778
Capital assets, net	213,588,122	200,602,241	198,417,167
Other assets, net	<u>2,859,600</u>	<u>2,720,567</u>	<u>3,538,758</u>
Total Assets	258,447,910	257,168,101	258,271,329
Deferred Outflows	<u>1,102,806</u>	<u>1,258,552</u>	<u>1,177,302</u>
Total Assets & Deferred Outflows	<u>\$ 259,550,716</u>	<u>\$ 258,426,653</u>	<u>\$ 259,448,631</u>
Current liabilities	\$ 8,529,904	\$ 6,706,997	\$ 6,456,654
Non-current liabilities	<u>50,401,635</u>	<u>52,873,270</u>	<u>55,686,331</u>
Total Liabilities	58,931,539	59,580,267	62,142,985
Deferred Inflows	<u>119,297</u>	<u>543,267</u>	<u>-</u>
Total Liabilities & Deferred Inflows	<u>\$ 59,050,836</u>	<u>\$ 60,123,534</u>	<u>\$ 62,142,985</u>
Net position:			
Net Investment in Capital Assets	\$ 167,952,249	\$ 158,792,779	\$ 161,373,199
Restricted	1,043,094	1,380,654	1,365,470
Unrestricted	<u>31,504,537</u>	<u>38,129,686</u>	<u>34,566,977</u>
Total Net Position	<u>\$ 200,499,880</u>	<u>\$ 198,303,119</u>	<u>\$ 197,305,646</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 (83.4%). 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 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.
- Current, and noncurrent assets other than capital assets and other assets in 2018 decreased \$2,470,111, or 4.4%. This decrease was primarily due to capital spending during the year.
- Capital assets, net and other assets, net in 2018 increased \$1,366,883 or 0.7%. This was due to capital spending on projects.
- Current liabilities in 2018 increased \$250,343 or 3.9% from 2017. This increase was primarily due to increases in trade and construction payables.
- Noncurrent liabilities in 2018 decreased \$2,813,061 or 5.1% from 2017, as a result of a reduction in debt related to 2018 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:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Operating Revenues:			
User Charges	\$ 36,657,563	\$ 35,747,627	\$ 33,448,968
Other Income & Rent	<u>418,299</u>	<u>396,813</u>	<u>402,422</u>
Total Operating Revenues	<u>37,075,862</u>	<u>36,144,440</u>	<u>33,851,390</u>
Operating Expenses:			
Salaries, Benefits & Administrative	13,086,824	11,796,649	11,727,107
Utilities, Supplies & Services	5,059,809	5,404,116	5,135,071
Treatment & Transportation	9,547	9,827	10,096
Depreciation & Amortization	<u>5,835,507</u>	<u>5,864,433</u>	<u>5,887,307</u>
Total Operating Expenses	<u>23,991,687</u>	<u>23,075,025</u>	<u>22,759,581</u>
Operating Income	<u>13,084,175</u>	<u>13,069,415</u>	<u>11,091,809</u>
Non-Operating Revenues (Expenses):			
Tapping & Capital Recovery Fees	1,707,128	1,383,796	736,536
Meter Sales	22,466	8,397	17,187
Inspection, Plan Reviews & Project Reimbursements	448,402	912,225	1,132,206
Interest Earnings	1,193,618	1,047,630	341,431
Other Income	59,659	65,442	157,056
Interest Expense	(19,386,584)	(18,810,413)	(18,516,650)
Other Expense	<u>(1,259,785)</u>	<u>(3,810,644)</u>	<u>(3,312,624)</u>
Total Net Non-Operating Revenues (Expenses)	<u>(17,215,096)</u>	<u>(19,203,567)</u>	<u>(19,444,858)</u>
Increase (Decrease) in Net Position	<u>(4,130,921)</u>	<u>(6,134,152)</u>	<u>(8,353,049)</u>
Beginning Net Position, as restated	<u>(51,257,443)</u>	<u>(45,123,291)</u>	<u>(35,827,045)</u>
Ending Net Position	<u>\$ (55,388,364)</u>	<u>\$ (51,257,443)</u>	<u>\$ (44,180,094)</u>

Year over year changes are as follows:

- 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 \$17,210,592 in 2018, an increase of \$945,588. 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 \$18,933,848 in 2018, a decrease of \$14,166 that was driven mostly by the increase in operating expenses.
- Operating Revenue for 2018 for the City Division was \$36,144,440, compared to \$33,851,390 in 2017 with most of the increase attributable to a rate increase, and higher Signatory Revenues.
- Operating expenses, net of depreciation and amortization were \$17,210,592 in 2018 compared to \$16,872,274 in 2017, an increase of \$338,318. 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 \$18,933,848 in 2018 compared to \$16,979,116, an increase of \$1,954,732 that was driven mostly by the increase in operating revenues.

It should be noted that interest expense of \$19,386,584 in 2019 is comprised of actual interest paid (\$13,416,748), accretion (\$3,392,576), amortization of the SCA Payable (\$2,283,221), change in accrued interest payable (\$-22,582) and amortization of bond discount (\$316,621).

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>2019</u>	<u>2018</u>	<u>2017</u>
Operating Revenues:			
User Charges	\$ 23,620,272	\$ 22,929,861	\$ 21,432,163
Other Income & Rent	<u>392,325</u>	<u>433,453</u>	<u>480,732</u>
Total Operating Revenues	<u>24,012,597</u>	<u>23,363,314</u>	<u>21,912,895</u>
Operating Expenses:			
Salaries, Benefits & Administrative	3,714,062	3,341,735	3,283,747
Utilities, Supplies & Services	10,503,525	9,707,897	9,864,615
Treatment & Transportation	3,385,568	3,543,753	3,516,548
Depreciation & Amortization	<u>7,173,251</u>	<u>7,258,530</u>	<u>7,294,644</u>
Total Operating Expenses	<u>24,776,406</u>	<u>23,851,915</u>	<u>23,959,554</u>
Operating Income/(Loss)	<u>(763,809)</u>	<u>(488,601)</u>	<u>(2,046,662)</u>
Non-Operating Revenues (Expenses):			
Tapping & Capital Recovery Fees	\$ 1,992,524	\$ 744,931	\$ 904,781
Meter Sales	94,763	85,259	112,468
Inspection, Plan Reviews & Project Reimbursements	435,705	220,921	166,877
Interest Earnings	512,038	477,745	289,520
Other Income	94,639	87,661	116,863
Interest Expense	(1,758,142)	(1,773,659)	(1,576,214)
Other Expense	<u>(142,376)</u>	<u>(113,018)</u>	<u>(458,095)</u>
Total Net Non-Operating Revenues (Expenses)	<u>\$ 1,229,151</u>	<u>\$ (270,160)</u>	<u>\$ (443,800)</u>
Increase (Decrease) in Net Position before Capital Contributions	<u>\$ 465,342</u>	<u>\$ (758,761)</u>	<u>\$ (2,490,459)</u>
Capital Contributions:			
Grants	-	212,688	211,892
Capital Assets Provided by Developers & Other	<u>1,731,419</u>	<u>1,616,004</u>	<u>8,168,259</u>
Total Capital contributions	<u>1,731,419</u>	<u>1,828,692</u>	<u>8,380,151</u>
Increase (Decrease) in Net Position	<u>2,196,761</u>	<u>1,069,931</u>	<u>5,889,692</u>
Beginning Net Position, as restated	<u>\$ 198,303,119</u>	<u>\$ 197,233,188</u>	<u>\$ 191,415,954</u>
Ending Net Position	<u>\$ 200,499,880</u>	<u>\$ 198,303,119</u>	<u>\$ 197,305,646</u>

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

- Operating Revenue in 2019 for the Suburban Division was \$24,012,597 compared to \$23,363,314 in 2018 and 21,912,895 in 2017. In 2019 the Suburban Division's Water Fund contributed \$9,930,541 in revenue compared to \$9,348,885 in 2018 and \$9,054,114 in 2017, while the Wastewater Fund added another \$14,082,056 in 2019 compared to \$14,014,429 in 2018, and \$12,858,781 in 2017. 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>2019</u>	<u>2018</u>	<u>2017</u>
Water System # of Units Connected:			
Single Family Detached	100	114	99
Single Family Attached (Townhouses)	97	71	119
Apartments and Mobile Homes	0	709	97
Commercial	<u>9</u>	<u>14</u>	<u>22</u>
Total Water System Connections	<u>206</u>	<u>908</u>	<u>337</u>
Wastewater Capacity Sales in Gallons:			
Residential	159,059	43,708	53,297
Commercial	<u>72,178</u>	<u>34,803</u>	<u>22,179</u>
Total Sales	<u>231,237</u>	<u>78,511</u>	<u>75,476</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 2019 primarily as a result of residential and commercial development in the Western Lehigh sewer area.

- The Suburban Water System purchased 7 million gallons a day 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, 2019

	<u>Beginning Balance</u>	<u>Increased / (Decreased)</u>	<u>Ending Balance</u>
Net Investment in Capital			
Assets	\$ 158,792,779	\$ 9,159,470	\$ 167,952,249
Restricted Net Position	1,380,654	(337,560)	1,043,094
Unrestricted Net Position	<u>38,129,686</u>	<u>(6,625,149)</u>	<u>31,504,537</u>
Total Net Position	<u>\$ 198,303,119</u>	<u>\$ 2,196,761</u>	<u>\$ 200,499,880</u>

Other Selected Information:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Equivalent Fulltime Employees at Year-End	162	160	155
Units Served:			
<u>Suburban Division:</u>			
Water – Residential	22,166	22,003	21,103
Water – Industrial & Commercial	<u>735</u>	<u>734</u>	<u>722</u>
Total Water Billable Units	22,901	22,737	21,825
Wastewater Collection – Residential	2,763	2,696	2,660
Wastewater Collection – Commercial	<u>127</u>	<u>127</u>	<u>126</u>
Total Wastewater Billable Units	2,890	2,823	2,786
<u>City Division:</u>			
Water:			
Water – Residential	41,377	41,198	41,620
Water – Industrial & Commercial	<u>5,146</u>	<u>5,139</u>	<u>5,150</u>
Total Water Billable Units	46,523	46,337	46,770
Wastewater:			
Wastewater – Residential	41,347	41,176	41,598
Wastewater – Commercial	<u>5,136</u>	<u>5,129</u>	<u>5,140</u>
Total Wastewater Billable Units	46,483	46,305	46,738
Customers:	<u>2019</u>	<u>2018</u>	<u>2017</u>
<u>Suburban Division:</u>			
Water – Residential	19,694	19,501	19,308
Water – Industrial & Commercial	<u>731</u>	<u>730</u>	<u>718</u>
Total Water Customers	20,425	20,231	20,026
Wastewater Collection – Residential	2,403	2,336	2,300
Wastewater Collection – Commercial	<u>123</u>	<u>123</u>	<u>122</u>
Total Wastewater Customers	2,526	2,459	2,422
<u>City Division:</u>			
Water – Residential	30,392	30,368	30,334
Water – Industrial & Commercial	<u>3,023</u>	<u>3,021</u>	<u>3,022</u>
Total Water Customers	33,415	33,389	33,356

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Wastewater Collection – Residential	30,347	30,346	30,312
Wastewater Collection – Commercial	<u>3,010</u>	<u>3,011</u>	<u>3,012</u>
Total Wastewater Customers	33,357	33,357	33,324
Ratios			
Suburban Division:			
Ratio of Operating Revenue to:			
Operating Expenses, Net of Depreciation & Amortization	1.36	1.41	1.31
Total Assets	.09	0.11	0.08
Total Net Position	.12	0.12	0.11
Debt Related Ratios:			
Net Position to Long-Term Debt	3.98	5.10	3.54
Current Ratio (Current Assets/Current Liabilities)	3.97	5.85	5.40
City Division:			
Ratio of Operating Revenue to:			
Operating Expenses, Net of Depreciation & Amortization	2.04	2.01	1.95
Total Assets (Annualized)	.12	0.114	0.10
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)	5.06	1.80	0.59

Capital Contributions

The Authority received no grants related to construction in 2019 compared to \$212,688 last year. Another major source of capital contributions is derived from developer installed Systems donated to the Authority \$1,731,419 was received in 2019 compared to \$1,616,004 in 2018.

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 decreased from \$244,952,520 in 2018 to \$241,126,076 in 2019, and the City Divisions net capital assets decreased from \$999,453 in 2018 to \$835,697 in 2019. More detail on the Service Concession Arrangement can be found in Note 6 to the financial statements.

Net capital assets in the Suburban Systems increased by \$12,985,881. This increase can be attributed to increased accumulated depreciation which partially offset capital projects executed in 2019. 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.

In 2018 the Authority issued City Division Water and Sewer Revenue Bond Series 2018 in the amount of \$18,735,000 to currently refund the 2013 Series C Bonds, fund a debt service reserve, and pay the costs and expenses of issuing the Bond.

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 2019 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.

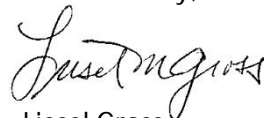
City Division:

City Division rates increased by 5.1% in January 2019 per the Concession agreement.

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, 2019 AND 2018

- ASSETS AND DEFERRED OUTFLOWS OF RESOURCES-

	Suburban Water Fund		Suburban Wastewater Fund		City Division Fund		Total	
	2019	2018	2019	2018	2019	2018	2019	2018
Current Assets:								
Cash and Cash Equivalents (Note 2)	\$ 9,242,611	\$ 2,486,081	\$ 7,057,187	\$ 8,743,052	\$ 12,660,402	\$ 8,616,780	\$ 28,960,200	\$ 19,845,913
Certificates of Deposit (Note 2)	3,136,930	4,356,991	7,757,276	6,455,704	-	-	10,894,206	10,812,695
Accounts Receivable:								
Customers	1,760,403	1,663,830	3,188,238	3,726,863	6,542,331	6,606,583	11,490,972	11,997,276
Financing Contracts (Note 4)	-	-	323,767	316,797	-	-	323,767	316,797
Others	280,007	203,148	675,091	509,247	2,941,090	4,147,552	3,896,188	4,859,947
Due from (to) Other Funds (Note 9)	1,599,692	7,576,231	(1,570,176)	2,817,997	(29,516)	(10,394,228)	-	-
Inventory	36,074	16,190	-	-	-	-	36,074	16,190
Accrued Interest Receivable	6,411	14,724	39,898	23,832	56,425	100,851	102,734	139,407
Prepaid Expenses	185,993	198,131	131,300	123,026	414,562	374,996	731,855	696,153
Total Current Assets	16,248,121	16,515,326	17,602,581	22,716,518	22,585,294	9,452,534	56,435,996	48,684,378
Noncurrent Assets:								
Restricted:								
Cash and Cash Equivalents (Note 2)	3,575,275	7,649,898	337,932	337,562	46,798,951	53,908,371	50,712,158	61,895,831
Certificates of Deposit (Note 2)	25,527	25,522	-	-	-	-	25,527	25,522
Investment U.S. Treasury Obligations (Note 2)	-	2,214,267	-	-	-	3,940,640	-	6,154,907
Developer Escrow Deposit (Note 3)	4,210,752	4,386,200	-	-	-	-	4,210,752	4,386,200
Total Restricted Assets	7,811,554	14,275,887	337,932	337,562	46,798,951	57,849,011	54,948,437	72,462,460
Capital Assets: (Notes 1 and 5)								
Land	2,114,884	2,043,265	1,888,430	1,837,891	-	-	4,003,314	3,881,156
Construction in progress	12,504,370	5,023,631	18,974,421	10,052,683	-	-	31,478,791	15,076,314
Wells & Reservoirs	9,709,252	9,554,770	3,494,643	3,494,643	-	-	13,203,895	13,049,413
Transmission & Distribution Mains	80,498,411	78,963,688	-	-	-	-	80,498,411	78,963,688
Services & Hydrants	17,571,410	17,144,642	-	-	-	-	17,571,410	17,144,642
Interceptor & Collector Systems	-	-	38,259,619	38,036,405	-	-	38,259,619	38,036,405
Building Structure & Appurtenances	23,797,378	23,632,286	55,828,047	54,910,406	-	-	79,625,425	78,542,692
Metering System	10,672,043	10,539,291	429,778	429,777	-	-	11,101,821	10,969,068
Equipment and Furnishings	7,769,506	7,283,092	23,175,902	22,551,923	3,268,879	3,192,900	34,214,287	33,027,915
Capacity	1,207,901	1,207,901	953,831	2,062,956	-	-	2,161,732	3,270,857
Less accumulated depreciation	(43,055,279)	(40,476,618)	(52,206,425)	(47,690,391)	(2,433,182)	(2,193,447)	(97,694,886)	(90,360,456)
Total Capital Assets	122,789,876	114,915,948	90,798,246	85,686,293	835,697	999,453	214,423,819	201,601,694
Other Assets:								
Long-Term Portion of Receivables -								
Financing Contracts (Note 4)	-	-	1,532,516	1,856,283	-	-	1,532,516	1,856,283
Intangible Service Concession								
Arrangement (Note 6)	-	-	-	-	241,126,076	244,952,520	241,126,076	244,952,520
OPEB Asset (Note 12)	1,244,053	736,708	-	-	-	-	1,244,053	736,708
Other Assets	-	-	-	-	3,216,983	1,902,429	3,216,983	1,902,429
Facilities Planning Costs								
(Net of Accumulated Amortization) (Note 7)	24,442	24,749	58,589	102,827	-	-	83,031	127,576
Total Other Assets	1,268,495	761,457	1,591,105	1,959,110	244,343,059	246,854,949	247,202,659	249,575,516
Total Noncurrent Assets	131,869,925	129,953,292	92,727,283	87,982,965	291,977,707	305,703,413	516,574,915	523,639,670
Total Assets	148,118,046	146,468,618	110,329,864	110,699,483	314,563,001	315,155,947	573,010,911	572,324,048
Deferred Outflows of Resources								
Pensions	679,620	509,394	342,115	256,424	2,523,498	1,891,432	3,545,233	2,657,250
OPEB	56,117	373,843	-	-	662,093	-	718,210	373,843
Refunding Loss on Bonds	24,954	118,891	-	-	-	-	24,954	118,891
Total Deferred Outflows	760,691	1,002,128	342,115	256,424	3,185,591	1,891,432	4,288,397	3,149,984
Total Assets and Deferred Outflows of Resources	\$ 148,878,737	\$ 147,470,746	\$ 110,671,979	\$ 110,955,907	\$ 317,748,592	\$ 317,047,379	\$ 577,299,308	\$ 575,474,032

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, 2019 AND 2018**

- LIABILITIES AND NET POSITION -

	Suburban Water Fund		Suburban Wastewater Fund		City Division Fund		Total	
	2019	2018	2019	2018	2019	2018	2019	2018
Current Liabilities:								
Accounts Payable - Trade	\$ 1,374,709	\$ 1,048,854	\$ 2,819,043	\$ 2,434,731	\$ 997,972	\$ 2,172,718	\$ 5,191,724	\$ 5,656,303
Accounts Payable - Capital	246,336	70,921	312,403	150,835	10,714	149,529	569,453	371,285
Accrued Interest Payable	233,600	237,699	3,346	3,346	1,105,780	1,128,362	1,342,726	1,369,407
Notes Payable (Note 8)	248,378	243,812	427,162	420,205	-	-	675,540	664,017
Revenue Bonds Payable (Note 8)	1,832,994	1,473,132	114,905	65,572	1,837,406	1,230,893	3,785,305	2,769,597
Developer Deposits and Other (Note 10)	554,977	195,273	2,950	6,019	19,805	26,016	577,732	227,308
Accrued Payroll & Other	226,234	220,498	132,867	136,100	494,941	435,808	854,042	792,406
Total Current Liabilities	<u>4,717,228</u>	<u>3,490,189</u>	<u>3,812,676</u>	<u>3,216,808</u>	<u>4,466,618</u>	<u>5,143,326</u>	<u>12,996,522</u>	<u>11,850,323</u>
Noncurrent Liabilities:								
Developer Deposits and Other (Note 10)	4,210,752	4,974,553	19,064	-	10,000	-	4,239,816	4,974,553
SCA Payable (Note 6)	-	-	-	-	47,694,490	45,936,129	47,694,490	45,936,129
Notes Payable (Note 8)	2,238,109	2,486,487	5,602,455	6,029,617	-	-	7,840,564	8,516,104
OPEB Liability	-	-	-	-	2,944,923	2,020,079	2,944,923	2,020,079
Net Pension Liability	956,221	336,866	481,353	169,575	3,550,538	1,250,814	4,988,112	1,757,255
Revenue Bonds Payable (Net of Premium/Discount) (Note 8)	35,526,589	37,380,843	1,367,092	1,495,329	314,470,387	312,612,705	351,364,068	351,488,877
Total Noncurrent Liabilities	<u>42,931,671</u>	<u>45,178,749</u>	<u>7,469,964</u>	<u>7,694,521</u>	<u>368,670,338</u>	<u>361,819,727</u>	<u>419,071,973</u>	<u>414,692,997</u>
Total Liabilities	<u>47,648,899</u>	<u>48,668,938</u>	<u>11,282,640</u>	<u>10,911,329</u>	<u>373,136,956</u>	<u>366,963,053</u>	<u>432,068,495</u>	<u>426,543,320</u>
Deferred Inflows of Resources								
Pensions	-	361,361	-	181,906	-	1,341,769	-	1,885,036
OPEB	119,297	-	-	-	-	-	119,297	-
Total Deferred Inflows	<u>119,297</u>	<u>361,361</u>	<u>-</u>	<u>181,906</u>	<u>-</u>	<u>1,341,769</u>	<u>119,297</u>	<u>1,885,036</u>
Net Position: (Notes 1 and 13)								
Net Investment in Capital Assets	84,665,617	81,117,209	83,286,632	77,675,570	835,697	999,453	168,787,946	159,792,232
Restricted for Debt Service	1,043,094	1,380,654	-	-	-	-	1,043,094	1,380,654
Unrestricted	15,401,830	15,942,584	16,102,707	22,187,102	(56,224,061)	(52,256,896)	(24,719,524)	(14,127,210)
Total Net Position	<u>101,110,541</u>	<u>98,440,447</u>	<u>99,389,339</u>	<u>99,862,672</u>	<u>(55,388,364)</u>	<u>(51,257,443)</u>	<u>145,111,516</u>	<u>147,045,676</u>
Total Liabilities, Deferred Inflows of Resources and Net Position	<u>\$ 148,878,737</u>	<u>\$ 147,470,746</u>	<u>\$ 110,671,979</u>	<u>\$ 110,955,907</u>	<u>\$ 317,748,592</u>	<u>\$ 317,047,379</u>	<u>\$ 577,299,308</u>	<u>\$ 575,474,032</u>

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, 2019 and 2018**

	Suburban Water Fund		Suburban Wastewater Fund		City Division Fund		Total	
	2019	2018	2019	2018	2019	2018	2019	2018
OPERATING REVENUES:								
Charges for Services	\$ 9,780,116	\$ 9,209,531	\$ 13,840,156	\$ 13,720,330	\$ 36,657,563	\$ 35,747,627	\$ 60,277,835	\$ 58,677,488
Rent	125,253	98,405	-	-	-	-	125,253	98,405
Other Income	25,172	40,949	241,900	294,099	418,299	396,813	685,371	731,861
Total Operating Revenues	<u>9,930,541</u>	<u>9,348,885</u>	<u>14,082,056</u>	<u>14,014,429</u>	<u>37,075,862</u>	<u>36,144,440</u>	<u>61,088,459</u>	<u>59,507,754</u>
OPERATING EXPENSES								
Salaries and Wages	1,042,754	1,037,882	551,668	462,145	6,391,947	6,233,387	7,986,369	7,733,414
Employee Benefits	507,022	411,304	327,474	207,116	3,577,250	2,825,759	4,411,746	3,444,179
General and Administrative	898,002	849,937	387,142	373,351	3,117,627	2,737,503	4,402,771	3,960,791
Utilities	426,969	437,253	374,030	290,201	1,960,605	2,040,103	2,761,604	2,767,557
Materials and Supplies	371,371	294,937	335,419	264,744	1,315,169	1,267,835	2,021,959	1,827,516
Miscellaneous Services	2,665,139	2,703,594	6,330,597	5,717,168	1,784,035	2,096,178	10,779,771	10,516,940
Treatment and Transportation	-	-	3,385,568	3,543,753	9,547	9,827	3,395,115	3,553,580
Depreciation and Amortization	2,602,179	2,768,133	4,571,072	4,490,397	5,835,507	5,864,433	13,008,758	13,122,963
Total Operating Expenses	<u>8,513,436</u>	<u>8,503,040</u>	<u>16,262,970</u>	<u>15,348,875</u>	<u>23,991,687</u>	<u>23,075,025</u>	<u>48,768,093</u>	<u>46,926,940</u>
OPERATING INCOME (LOSS)	<u>1,417,105</u>	<u>845,845</u>	<u>(2,180,914)</u>	<u>(1,334,446)</u>	<u>13,084,175</u>	<u>13,069,415</u>	<u>12,320,366</u>	<u>12,580,814</u>
NONOPERATING REVENUES (EXPENSES):								
Tapping and Capital Recovery Fees	418,775	221,405	1,573,749	523,526	1,707,128	1,383,796	3,699,652	2,128,727
Meter Sales	94,763	85,259	-	-	22,466	8,397	117,229	93,656
Inspection, Plan Reviews, and Project Reimbursements	393,187	183,148	42,518	37,773	448,402	912,225	884,107	1,133,146
Investment Earnings	179,191	255,439	332,847	222,306	1,193,618	1,047,630	1,705,656	1,525,375
Interest Expense	(1,545,028)	(1,576,659)	(213,114)	(197,000)	(19,386,584)	(18,810,413)	(21,144,726)	(20,584,072)
Other Expense	(98,246)	(82,142)	(44,130)	(30,876)	(1,259,785)	(3,810,644)	(1,402,161)	(3,923,662)
Other Income	93,928	86,971	711	690	59,659	65,442	154,298	153,103
Total Nonoperating Revenues/(Expenses)	<u>(463,430)</u>	<u>(826,579)</u>	<u>1,692,581</u>	<u>556,419</u>	<u>(17,215,096)</u>	<u>(19,203,567)</u>	<u>(15,985,945)</u>	<u>(19,473,727)</u>
Increase (Decrease) in net position before capital contributions	<u>953,675</u>	<u>19,266</u>	<u>(488,333)</u>	<u>(778,027)</u>	<u>(4,130,921)</u>	<u>(6,134,152)</u>	<u>(3,665,579)</u>	<u>(6,892,913)</u>
Capital Contributions:								
Capital Grant	-	212,688	-	-	-	-	-	212,688
Capital Assets Provided by Developers and Others	1,716,419	1,581,110	15,000	34,894	-	-	1,731,419	1,616,004
Total Capital Contributions	<u>1,716,419</u>	<u>1,793,798</u>	<u>15,000</u>	<u>34,894</u>	<u>-</u>	<u>-</u>	<u>1,731,419</u>	<u>1,828,692</u>
Increase (Decrease) in Net Position	<u>2,670,094</u>	<u>1,813,064</u>	<u>(473,333)</u>	<u>(743,133)</u>	<u>(4,130,921)</u>	<u>(6,134,152)</u>	<u>(1,934,160)</u>	<u>(5,064,221)</u>
Net Position at Beginning of Year, before restatement	<u>98,440,447</u>	<u>96,699,841</u>	<u>99,862,672</u>	<u>100,605,805</u>	<u>(51,257,443)</u>	<u>(44,180,094)</u>	<u>147,045,676</u>	<u>153,125,552</u>
Cumulative Effect of Change in Accounting principle	<u>-</u>	<u>(72,458)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(943,197)</u>	<u>-</u>	<u>(1,015,655)</u>
Net Position at Beginning of Year, as restated (Note 18)	<u>98,440,447</u>	<u>96,627,383</u>	<u>99,862,672</u>	<u>100,605,805</u>	<u>(51,257,443)</u>	<u>(45,123,291)</u>	<u>147,045,676</u>	<u>152,109,897</u>
Net Position at End of Year	<u>\$ 101,110,541</u>	<u>\$ 98,440,447</u>	<u>\$ 99,389,339</u>	<u>\$ 99,862,672</u>	<u>\$ (55,388,364)</u>	<u>\$ (51,257,443)</u>	<u>\$ 145,111,516</u>	<u>\$ 147,045,676</u>

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

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA**

**STATEMENTS OF CASH FLOWS
Years Ended December 31, 2019 AND 2018**

	Suburban Water Fund		Suburban Wastewater Fund		City Division Fund		Total	
	2019	2018	2019	2018	2019	2018	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES								
Cash Received From Customers	\$ 9,683,543	\$ 9,139,731	\$ 14,529,734	\$ 12,872,395	\$ 37,928,277	\$ 34,102,933	\$ 62,141,554	\$ 56,115,059
Cash Payments To Suppliers For Goods And Services	(3,145,370)	(4,250,965)	(10,049,576)	(8,760,326)	(6,283,668)	(5,183,470)	(19,478,614)	(18,194,761)
Cash Payments To Employees For Services	(2,424,596)	(2,261,466)	(1,225,336)	(1,077,111)	(12,439,051)	(11,563,730)	(16,088,983)	(14,902,307)
Other Operating Cash Receipts	73,566	141,798	241,900	294,099	418,299	396,813	733,765	832,710
Net Cash Provided By Operating Activities	4,187,143	2,769,098	3,496,722	3,329,057	19,623,857	17,752,546	27,307,722	23,850,701
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES								
Interest Paid on Revenue Bonds and Notes	-	-	-	-	(13,416,749)	(13,047,722)	(13,416,749)	(13,047,722)
Facility Improvement Payments	-	-	-	-	(3,148,442)	(4,391,765)	(3,148,442)	(4,391,765)
Payments to the City of Allentown	-	-	-	-	(524,861)	(511,560)	(524,861)	(511,560)
Transfers From Other Funds	5,976,539	-	4,388,173	-	-	5,043,794	10,364,712	5,043,794
Transfers To Other Funds	-	(4,492,791)	-	(551,003)	(10,364,712)	-	(10,364,712)	(5,043,794)
Net Cash Provided By (Used in) Noncapital Financing Activities	5,976,539	(4,492,791)	4,388,173	(551,003)	(27,454,764)	(12,907,253)	(17,090,052)	(17,951,047)
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES								
Receipts/(Release) of Developer Deposits	476,525	171,926	15,995	-	3,789	11,560	496,309	183,486
Payments of Developer Deposits	(705,174)	(391,741)	-	-	-	-	(705,174)	(391,741)
Payments of Facilities Planning Costs	(23,211)	(26,909)	(10,800)	(3,792)	-	-	(34,011)	(30,701)
Acquisition and Construction of Property and Equipment	(8,560,755)	(5,350,054)	(9,612,987)	(2,383,534)	(128,624)	(289,860)	(18,302,366)	(8,023,448)
Cash Received from Tapping and Capital Recovery Fees	418,775	221,405	1,573,749	523,526	1,707,128	1,383,796	3,699,652	2,128,727
Cash Received from Meter Sales	94,763	85,259	-	-	22,466	8,397	117,229	93,656
Cash Received from Inspection, Plan Reviews, and Project Reimbursements	393,187	183,148	42,518	37,773	448,402	912,225	884,107	1,133,146
Other Capital Cash Receipts	93,928	299,659	118,149	(2,009)	59,659	65,442	271,736	363,092
Other Capital Cash Payments	(98,246)	(152,149)	-	-	(1,281,395)	(3,740,451)	(1,379,641)	(3,892,600)
Revenue Bond and Note Issuance Proceeds	-	-	-	-	-	18,735,000	-	18,735,000
Principal Paid On Revenue Bonds	(1,481,325)	(1,453,878)	(78,904)	(69,157)	(1,245,000)	(18,735,000)	(2,805,229)	(20,258,035)
Principal Paid On Revenue Notes	(243,812)	(239,330)	(420,205)	(415,682)	-	-	(664,017)	(655,012)
Interest Paid On Revenue Bonds and Notes	(1,468,257)	(1,499,805)	(213,114)	(197,000)	-	-	(1,681,371)	(1,696,805)
Net Cash Provided by (Used in) Capital and Related Financing Activities	(11,103,602)	(8,152,469)	(8,585,599)	(2,509,875)	(413,575)	(1,648,891)	(20,102,776)	(12,311,235)
CASH FLOWS FROM INVESTING ACTIVITIES								
Maturities of Certificates Of Deposit	3,808,000	4,956,312	14,866,203	5,206,318	-	-	18,674,203	10,162,630
Purchase of Certificates Of Deposit	(2,572,668)	(2,161,990)	(16,147,680)	(3,154,859)	-	-	(18,720,348)	(5,316,849)
Maturities of U.S. Treasury Obligations	2,230,000	6,545,175	-	-	4,000,000	3,999,840	6,230,000	10,545,015
Interest Received On Investments	156,495	248,769	296,686	214,326	1,178,684	982,896	1,631,865	1,445,991
Net Cash Provided by (Used in) Investing Activities	3,621,827	9,588,266	(984,791)	2,265,785	5,178,684	4,982,736	7,815,720	16,836,787
Net Increase (Decrease) in Cash	2,681,907	(287,896)	(1,685,495)	2,533,964	(3,065,798)	8,179,138	(2,069,386)	10,425,206
Cash:								
Beginning	10,135,979	10,423,875	9,080,614	6,546,650	62,525,151	54,346,013	81,741,744	71,316,538
Ending	<u>\$ 12,817,886</u>	<u>\$ 10,135,979</u>	<u>\$ 7,395,119</u>	<u>\$ 9,080,614</u>	<u>\$ 59,459,353</u>	<u>\$ 62,525,151</u>	<u>\$ 79,672,358</u>	<u>\$ 81,741,744</u>
Cash Consisted of the Following:								
Cash and Cash Equivalents	\$ 9,242,611	\$ 2,486,081	\$ 7,057,187	\$ 8,743,052	\$ 12,660,402	\$ 8,616,780	\$ 28,960,200	\$ 19,845,913
Restricted Cash and Cash Equivalents	3,575,275	7,649,898	337,932	337,562	46,798,951	53,908,371	50,712,158	61,895,831
Total Cash and Cash Equivalents	<u>\$ 12,817,886</u>	<u>\$ 10,135,979</u>	<u>\$ 7,395,119</u>	<u>\$ 9,080,614</u>	<u>\$ 59,459,353</u>	<u>\$ 62,525,151</u>	<u>\$ 79,672,358</u>	<u>\$ 81,741,744</u>

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, 2019 AND 2018

	Suburban Water Fund		Suburban Wastewater Fund		City Division Fund		Total	
	2019	2018	2019	2018	2019	2018	2019	2018
Reconciliation Of Operating Income (Loss) To Net Cash Provided By Operating Activities								
Operating Income (Loss)	\$ 1,417,105	\$ 845,845	\$ (2,180,914)	\$ (1,334,446)	\$ 13,084,175	\$ 13,069,415	\$ 12,320,366	\$ 12,580,814
Adjustments to Reconcile Operating Income (Loss) to Net Cash Provided by/(Used In) Operating Activities:								
Depreciation and Amortization	2,602,179	2,768,133	4,571,072	4,490,397	5,835,507	5,864,433	13,008,758	13,122,963
Change in Assets and Liabilities:								
(Increase)/Decrease in Accounts Receivable Customers	(96,573)	(69,800)	538,625	(748,313)	64,252	(521,760)	506,304	(1,339,873)
(Increase)/Decrease in Financing								
Contract Receivable	-	-	316,797	302,578	-	-	316,797	302,578
(Increase)/Decrease in Other Operating Receivable	(76,859)	2,444	(165,844)	(402,200)	1,206,462	(1,122,934)	963,759	(1,522,690)
(Increase)/Decrease in Inventory	(19,884)	17,980	-	-	-	-	(19,884)	17,980
(Increase)/Decrease in Prepaid Expense	12,138	(18,300)	(8,274)	(23,056)	(39,566)	16,010	(35,702)	(25,346)
Increase in OPEB Liability	-	-	-	-	924,844	1,135,098	924,844	1,135,098
Decrease in OPEB Asset	(507,345)	373,197	-	-	-	-	(507,345)	373,197
Increase/(Decrease) in Accounts Payable - Trade	325,855	(814,861)	384,312	1,078,596	(1,174,746)	214,463	(464,579)	478,198
Increase in Net Pension Liability	619,355	(485,299)	311,778	(244,295)	2,299,724	(2,745,157)	3,230,857	(3,474,751)
(Increase) in Pension Deferred Outflows	(170,226)	132,138	(85,691)	66,517	(632,066)	490,640	(887,983)	689,295
(Increase) in OPEB Deferred Outflows	317,726	(373,843)	-	-	(662,093)	-	(344,367)	(373,843)
Increase in OPEB Deferred Inflows	119,297	-	-	-	-	-	119,297	-
Increase in Pension Deferred Inflows	(361,361)	361,361	(181,906)	181,906	(1,341,769)	1,341,769	(1,885,036)	1,885,036
Increase/(Decrease) in Accrued Wages and Other	5,736	30,103	(3,233)	(38,627)	59,133	10,569	61,636	2,045
Net Cash Provided By Operating Activities	\$ 4,187,143	\$ 2,769,098	\$ 3,496,722	\$ 3,329,057	\$ 19,623,857	\$ 17,752,546	\$ 27,307,722	\$ 23,850,701
Noncash Investing, Capital, and Financing Activities								
Noncash Capital Activities, Contribution of Capital Assets From Developers and Others	\$ 1,716,419	\$ 1,581,110	\$ 15,000	\$ 34,894	\$ -	\$ -	\$ 1,731,419	\$ 1,616,004
Noncash Noncapital Activities, Accretion on Bonds Payable	-	-	-	-	3,392,575	3,206,323	3,392,575	3,206,323
Noncash Noncapital Activities, Change in Present Value of SCA Payable	-	-	-	-	2,283,222	2,198,696	2,283,222	2,198,696
Change in Fair Value of Investments	(31,009)	(8,016)	(20,095)	(1,044)	(59,360)	160	(110,464)	(8,900)

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, 2019 and 2018**

		Suburban Post Employment Health Fund	
		2019	2018
Assets			
	Investments:		
	Mutual Funds (Note 2)	\$ 3,385,901	\$ 2,828,188
	Total Assets	\$ 3,385,901	\$ 2,828,188
Net Position Restricted for			
Post Retirement Health Benefits		\$ 3,385,901	\$ 2,828,188

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, 2019 and 2018**

	Suburban Post Employment Health Fund	
	2019	2018
Additions:		
Contributions:		
Employer	\$ 22,928	\$ 13,376
Total Contributions	22,928	13,376
Investment Income:		
Net Increase/(Decrease) in Fair Value of Investments	648,168	(217,146)
Less Investment Expense	(3,047)	(3,102)
Net Investment Income/(Loss)	645,121	(220,248)
Total Additions	668,049	(206,872)
Deductions:		
Reimbursement of Benefits Expense	110,336	92,904
Total Deductions	110,336	92,904
Net Increase/(Decrease) in Net Position	557,713	(299,776)
Net Position Restricted for Post Retirement Health Benefits:		
Beginning of Year	2,828,188	3,127,964
End of Year	\$ 3,385,901	\$ 2,828,188

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 46,523 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 46,483 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 2,890 customers as of December 31, 2019. 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, 2019 the Water System serves 22,901 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 considered to be 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.

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA**

Notes to Financial Statements

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

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.

The funds 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 Concessions 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 as a result of the Service Concession Arrangement discussed in Note 6.

2. Fiduciary Fund:

The Suburban Post-Employment Health Trust Fund was created in 2010 to accumulate assets to be used for payment of health benefits to qualified retirees.

C. Budgets and Budgetary Accounting

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

1. In November 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 November for review. A formal presentation is made the second week of December with final adoption at the Authority's final December 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. Each month, a Budget Comparative Report is prepared. 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 General Manager is authorized to transfer budgeted amounts between line items within any budget; 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, 2019, 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 General Manager, 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 of the 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 2019 and 2018 are as follows:

	<u>Amortization Period (Years)</u>	<u>2019 Amortization</u>	<u>2018 Amortization</u>
Suburban Water Fund:			
Facilities Planning Costs	3-10	\$ 23,516	\$ 41,345
Suburban Wastewater Fund:			
Facilities Planning Costs	3-7	<u>55,033</u>	<u>52,668</u>
Total Amortization		<u>\$ 78,549</u>	<u>\$ 94,013</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.

With approval up to 25 days of unused vacation can accumulate for 18 months beyond the year in which it is earned.

The following table summarizes unused vacation liability:

	<u>2019</u>	<u>2018</u>
Balance at Beginning of Year	\$ 283,062	\$ 268,361
Additions	307,524	283,062
Retirements	<u>(283,062)</u>	<u>(268,361)</u>
Balance at End of Year	<u>\$ 307,524</u>	<u>\$ 283,062</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 so 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. 95 "*Postponement of the Effective Dates of Certain Authoritative Guidance*". The adoption of GASB Statement No. 95 resulted in the Authority postponing the adoption of several GASB Statements.

O. Pending Changes in Accounting Principles

In November 2016, the GASB issued Statement No. 83, "*Certain Asset Retirement Obligations*". The Authority is required to adopt statement No. 83 for its calendar year 2020 financial statements.

In January 2017, the GASB issued Statement No. 84, "*Fiduciary Activities*". The Authority is required to adopt statement No. 84 for its calendar year 2020 financial statements.

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 April 2018, the GASB issued Statement No. 88, "*Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements*". The Authority is required to adopt statement No. 88 for its calendar year 2020 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 August 2018, the GASB issued Statement No. 90, "*Majority Equity Interest-an amendment of GASB Statements No. 14 and No. 61*". The Authority is required to adopt statement No. 90 for its calendar year 2020 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 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.

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>2019</u>	<u>2018</u>
Demand deposit, money market, and savings accounts	\$ 68,548,201	\$ 76,828,652
Certificates of deposit, nonnegotiable	2,425,527	2,425,522
Overnight repurchase	8,545,022	2,434,615
Certificates of deposit, negotiable	8,494,206	8,412,695
U.S. Treasury Obligations	-	6,154,907
OPEB Mutual Funds	3,385,901	2,828,188
Pennsylvania School District Liquid Asset Fund	<u>2,579,135</u>	<u>2,478,477</u>
	<u>\$ 93,977,992</u>	<u>\$101,563,056</u>
Classification per statements of net position:		
Unrestricted current assets		
Cash and cash equivalents	\$ 28,960,200	\$ 19,845,913
Certificates of deposit	10,894,206	10,812,695
Restricted non-current assets		
Cash and cash equivalents	50,712,158	61,895,831
Certificates of deposit	25,527	25,522
Investment U.S. treasury obligations	-	6,154,907
OPEB Mutual Funds	<u>3,385,901</u>	<u>2,828,188</u>
	<u>\$ 93,977,992</u>	<u>\$101,563,056</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.

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. At December 31, 2019 and 2018, the carrying amounts of the Authority's bank deposits were \$17,293,108 and \$10,201,433 respectively, and the bank balance of \$18,269,919 and \$12,296,350, respectively. As of December 31, 2019 and 2018 \$15,094,393 and \$9,460,446 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. At December 31, 2019 and 2018 none of the Authority's investments were subject to custodial credit risk.

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA**

Notes to Financial Statements

NOTE 2 – DEPOSITS AND INVESTMENTS (Continued)

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 are 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.

International City Managers Association Trust Fund

The Authority entered into an agreement with the International City Managers Association (ICMA) to place its future obligation for Other Post-employment Benefits into an irrevocable trust fund.

The Authority invested the funds in a long-term growth mutual fund (98%) and a Low Duration Bond fund (2%). Since the funds are not part of a pool, they are held in the name of Lehigh County Authority.

Money Market Funds

The Authority invests 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, 2019 and 2018, the Authority had the following investments and maturities:

<u>2019</u>						
<u>Investment Type</u>	<u>Cost</u>	<u>Fair Value</u>	<u>% of Total</u>	Investment Maturities (In Years)		Rating as of Year-End
				<u>Less than One Year</u>	<u>One-to-Five Years</u>	
Certificates of Deposit, negotiable	\$8,460,000	\$8,494,206	76.71%	\$2,559,542	\$5,934,664	N/A
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>	AAA Standard & Poors
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>	

<u>2018</u>						
<u>Investment Type</u>	<u>Cost</u>	<u>Fair Value</u>	<u>% of Total</u>	Investment Maturities (In Years)		Rating as of Year-End
				<u>Less than One Year</u>	<u>One-to-Five Years</u>	
Certificates of Deposit, negotiable	\$8,442,000	\$8,412,695	49.35%	\$6,496,275	\$1,916,420	N/A
U.S. Treasury Obligation	6,123,857	6,154,907	36.11%	6,154,907	-	N/A
Pennsylvania School District Liquid Asset Fund	<u>2,478,477</u>	<u>2,478,477</u>	<u>14.54%</u>	<u>2,478,477</u>	<u>-</u>	AAA Standard & Poors
Total	<u>\$17,044,334</u>	<u>\$17,046,079</u>	<u>100.00%</u>	<u>\$15,129,659</u>	<u>\$1,916,420</u>	

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.

**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 are valued using quoted market prices (Level 1 inputs).

The Authority's investments in U.S. Treasury Obligations are valued using a matrix pricing model (Level 2 inputs).

The Authority's investments in OPEB Mutual Funds are valued using quoted market prices (Level 1 inputs).

NOTE 3 – DEVELOPER ESCROW DEPOSIT

The Authority requires developers to provide improvement security for system extensions. To meet this requirement, the majority of 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 market value of the shares held is compared to total maintenance security required for all of this 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, 2019 the Authority has five 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 (\$323,767) and long-term receivables (\$1,532,516). At year-end 2018, there were five agreements and the unpaid fees were recorded as current (\$316,797) and long-term receivables (\$1,856,283). 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 2019 and 2018 consist of the following:

	<u>Balance at</u> <u>12/31/18</u>	<u>Additions</u>	<u>Retirements</u>	<u>Balance at</u> <u>12/31/19</u>
Suburban Water Fund				
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	<u>7,066,896</u>	<u>8,836,574</u>	<u>(1,284,216)</u>	<u>14,619,254</u>
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	<u>148,325,670</u>	<u>2,900,231</u>	<u>-</u>	<u>151,225,901</u>
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	<u>(40,476,618)</u>	<u>(2,578,661)</u>	<u>-</u>	<u>(43,055,279)</u>
Total Net Capital Assets Being Depreciated	<u>107,849,052</u>	<u>321,570</u>	<u>-</u>	<u>108,170,622</u>
Total Capital Assets, Net	<u><u>\$ 114,915,948</u></u>	<u><u>\$ 9,158,144</u></u>	<u><u>\$ (1,284,216)</u></u>	<u><u>\$ 122,789,876</u></u>

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA**

Notes to Financial Statements

NOTE 5 – CAPITAL ASSETS (Continued)

	<u>Balance at 12/31/18</u>	<u>Additions</u>	<u>Retirements</u>	<u>Balance at 12/31/19</u>
Suburban Wastewater Fund				
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>

	<u>Balance at 12/31/18</u>	<u>Additions</u>	<u>Retirements</u>	<u>Balance at 12/31/19</u>
City Division Fund				
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 12/31/18</u>	<u>Additions</u>	<u>Retirements</u>	<u>Balance at 12/31/19</u>
Total Funds				
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	<u>\$ 201,601,694</u>	<u>\$ 16,965,266</u>	<u>\$ (4,143,141)</u>	<u>\$ 214,423,819</u>
	<u>Balance at 12/31/17</u>	<u>Additions</u>	<u>Retirements</u>	<u>Balance at 12/31/18</u>
Suburban Water Fund				
Non-depreciable Assets:				
Land	\$ 1,979,296	\$ 63,969	\$ -	\$ 2,043,265
Construction in progress	3,818,074	5,348,971	(4,143,414)	5,023,631
Total Capital Assets Not Being Depreciated	5,797,370	5,412,940	(4,143,414)	7,066,896
Depreciable Assets:				
Wells & Reservoirs	9,107,259	447,511	-	9,554,770
Transmission & Distribution Mains	77,398,129	1,565,559	-	78,963,688
Service & Hydrants	16,871,358	273,284	-	17,144,642
Building Structure & Appurtenances	22,847,846	784,440	-	23,632,286
Metering System	8,641,522	1,897,769	-	10,539,291
Equipment	6,620,625	693,075	(30,608)	7,283,092
Capacity	1,207,901	-	-	1,207,901
Total Capital Assets Being Depreciated	142,694,640	5,661,638	(30,608)	148,325,670
Less Accumulated Depreciation for:				
Wells & Reservoirs	(3,015,812)	(172,202)	-	(3,188,014)
Transmission & Distribution Mains	(12,146,796)	(780,224)	-	(12,927,020)
Service & Hydrants	(4,021,004)	(277,101)	-	(4,298,105)
Building Structure & Appurtenances	(8,074,735)	(602,353)	-	(8,677,088)
Metering System	(4,444,941)	(421,514)	-	(4,866,455)
Equipment	(5,389,774)	(441,560)	30,608	(5,800,726)
Capacity	(687,376)	(31,834)	-	(719,210)
Total Accumulated Depreciation	(37,780,438)	(2,726,788)	30,608	(40,476,618)
Total Net Capital Assets Being Depreciated	104,914,202	2,934,850	-	107,849,052
Total Capital Assets, Net	<u>\$ 110,711,572</u>	<u>\$ 8,347,790</u>	<u>\$ (4,143,414)</u>	<u>\$ 114,915,948</u>

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA**

Notes to Financial Statements

NOTE 5 – CAPITAL ASSETS (Continued)

	Balance at 12/31/17	Additions	Retirements	Balance at 12/31/18
Suburban Wastewater Fund				
Non-depreciable Assets:				
Land	\$ 1,802,997	\$ 34,894	\$ -	\$ 1,837,891
Capacity	2,442,164	-	(379,208)	2,062,956
Construction in progress	9,012,605	2,740,223	(1,700,145)	10,052,683
Total Capital Assets Not Being Depreciated	13,257,766	2,775,117	(2,079,353)	13,953,530
Depreciable Assets:				
Interceptor & Collector Systems	38,035,012	1,393	-	38,036,405
Wells & Reservoirs	3,494,643	-	-	3,494,643
Building Structure & Appurtenances	53,561,605	1,348,801	-	54,910,406
Metering System	421,474	8,303	-	429,777
Equipment	22,187,756	364,167	-	22,551,923
Total Capital Assets Being Depreciated	117,700,490	1,722,664	-	119,423,154
Less Accumulated Depreciation for:				
Interceptor & Collector Systems	(10,254,369)	(440,551)	-	(10,694,920)
Wells & Reservoirs	(476,143)	(63,539)	-	(539,682)
Building Structure & Appurtenances	(16,561,892)	(1,771,060)	-	(18,332,952)
Metering System	(240,928)	(11,648)	-	(252,576)
Equipment	(15,719,329)	(2,150,932)	-	(17,870,261)
Total Accumulated Depreciation	(43,252,661)	(4,437,730)	-	(47,690,391)
Total Net Capital Assets Being Depreciated	74,447,829	(2,715,066)	-	71,732,763
Total Capital Assets, Net	\$ 87,705,595	\$ 60,051	\$ (2,079,353)	\$ 85,686,293
	Balance at 12/31/17	Additions	Retirements	Balance at 12/31/18
City Division Fund				
Non-depreciable Assets:				
Construction in progress	\$ -	\$ -	\$ -	\$ -
Total Capital Assets Not Being Depreciated	-	-	-	-
Depreciable Assets:				
Transportation Equipment	2,654,492	289,860	(23,549)	2,920,803
Miscellaneous Equipment & Computers	248,981	-	-	248,981
Office Furniture & Equipment	23,116	-	-	23,116
Total Capital Assets Being Depreciated	2,926,589	289,860	(23,549)	3,192,900
Less Accumulated Depreciation for:				
Transportation Equipment	(1,687,385)	(312,025)	21,837	(1,977,573)
Miscellaneous Equipment & Computers	(147,213)	(45,545)	-	(192,758)
Office Furniture & Equipment	(20,804)	(2,312)	-	(23,116)
Total Accumulated Depreciation	(1,855,402)	(359,882)	21,837	(2,193,447)
Total Net Capital Assets Being Depreciated	1,071,187	(70,022)	(1,712)	999,453
Total Capital Assets, Net	\$ 1,071,187	\$ (70,022)	\$ (1,712)	\$ 999,453

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA**

Notes to Financial Statements

NOTE 5 – CAPITAL ASSETS (Continued)

	<u>Balance at 12/31/17</u>	<u>Additions</u>	<u>Retirements</u>	<u>Balance at 12/31/18</u>
Total Funds				
Total Capital Assets Not Being				
Depreciated	\$ 19,055,136	\$ 8,188,057	\$ (6,222,767)	\$ 21,020,426
Total Capital Assets Being				
Depreciated	263,321,719	7,674,162	(54,157)	270,941,724
Total Accumulated Depreciation	(82,888,501)	(7,524,400)	52,445	(90,360,456)
Total Net Capital Assets Being				
Depreciated	180,433,218	149,762	(1,712)	180,581,268
Total Capital Assets, Net	<u>\$ 199,488,354</u>	<u>\$ 8,337,819</u>	<u>\$ (6,224,479)</u>	<u>\$ 201,601,694</u>

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 2019 and 2018 the total value of this capacity was \$953,831 and \$2,062,956 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 \$1,716,684 and \$3,996,348 were recorded as increases to the intangible asset in 2019 and 2018, respectively. Amortization expense in the amount of \$5,543,128 and \$5,504,551 was recognized in 2019 and 2018, respectively related to the intangible asset. The net book value of the asset was \$241,126,076 and \$244,952,520 at December 31, 2019 and 2018, 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 at 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 at August 8, 2013.

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA**

Notes to Financial Statements

NOTE 7 – FACILITIES PLANNING COSTS

Facilities Planning Costs for 2019 and 2018 consist of the following:

	<u>As of 12/31/18</u>	<u>Additions</u>	<u>Retirements</u>	<u>As of 12/31/19</u>
Suburban Water Fund				
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 Costs - Net	<u>24,749</u>	<u>(307)</u>	<u>-</u>	<u>24,442</u>
Suburban Wastewater Fund				
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 Facilities Planning Costs - Net	<u>102,827</u>	<u>(44,238)</u>	<u>-</u>	<u>58,589</u>
Total Facilities Planning Costs - Net	<u>\$ 127,576</u>	<u>\$ (44,545)</u>	<u>\$ -</u>	<u>\$ 83,031</u>
	<u>As of 12/31/17</u>	<u>Additions</u>	<u>Retirements</u>	<u>As of 12/31/18</u>
Suburban Water Fund				
Facilities Planning Costs	\$ 802,857	\$ 26,909	\$ (142,215)	\$687,551
Less Accumulated Amortization	<u>(763,672)</u>	<u>(41,345)</u>	<u>142,215</u>	<u>(662,802)</u>
Total Suburban Water Facilities Planning Costs - Net	<u>39,185</u>	<u>(14,436)</u>	<u>-</u>	<u>24,749</u>
Suburban Wastewater Fund				
Facilities & Planning Costs	1,067,180	3,793	(562,073)	508,900
Less Accumulated Amortization	<u>(915,478)</u>	<u>(52,668)</u>	<u>562,073</u>	<u>(406,073)</u>
Total Suburban Wastewater Planning Facilities Costs - Net	<u>151,702</u>	<u>(48,875)</u>	<u>-</u>	<u>102,827</u>
Total Planning Facilities Costs - Net	<u>\$ 190,887</u>	<u>\$ (63,311)</u>	<u>\$ -</u>	<u>\$ 127,576</u>

LEHIGH COUNTY AUTHORITY ALLENTOWN, PENNSYLVANIA

Notes to Financial Statements

NOTE 8 – LONG-TERM DEBT

Long-term debt for 2019 and 2018 consists of the following:

	Balance Outstanding As of <u>12/31/18</u>	Additions / <u>Accretions</u>	<u>Retirements</u>	Balance Outstanding As of 12/31/19	Principal Due Within One Year
Suburban Water Fund					
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
2007 State Pennworks Note	1,651,787	-	(172,696)	1,479,091	176,181
2011 Pennsylvania Infrastructure Investment Authority Note	1,078,512	-	(71,116)	1,007,396	72,197
Subtotal	\$ 41,211,868	\$ -	\$ (1,725,137)	\$ 39,486,731	\$ 2,081,372
Add Bond Premium	372,406	-	(13,067)	359,339	
Total Suburban Water Fund Debt	\$ 41,584,274	\$ -	\$ (1,738,204)	\$ 39,846,070	
Less Current Maturities				(2,081,372)	
Net Suburban Water Fund Long-Term Debt				<u>\$ 37,764,698</u>	
Suburban Wastewater Fund					
2009 Pennsylvania Infrastructure Investment Authority Note	\$ 3,451,275	\$ -	\$ (247,095)	\$ 3,204,180	\$ 253,464
2011 Sewer Revenue Bonds Series A	1,560,901	-	(78,904)	1,481,997	114,905
2013 Pennsylvania Infrastructure Investment Authority Note	2,294,634	-	(135,730)	2,158,904	135,942
2015 Pennsylvania Infrastructure Investment Authority Note	703,913	-	(37,380)	666,533	37,756
Total Suburban Wastewater Fund Debt	\$ 8,010,723	\$ -	\$ (499,109)	\$ 7,511,614	\$ 542,067
Less Current Maturities				(542,067)	
Net Suburban Wastewater Fund Long-Term Debt				<u>\$ 6,969,547</u>	
City Division Fund					
2013 Water and Sewer Revenue Bonds, Series A	\$ 245,590,000	\$ -	\$ -	\$ 245,590,000	\$ -
2013 Water and Sewer Capital Appreciation Revenue Bonds, Series B	58,700,641	3,392,575	(450,000)	61,643,216	882,406
2018 Water and Sewer Revenue Bonds (Federally Taxable)	18,735,000	-	(795,000)	17,940,000	955,000
Subtotal	\$ 323,025,641	\$ 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	\$ 313,843,598	\$ 3,392,575	\$ (928,380)	316,307,793	
Less Current Maturities				(1,837,406)	
Net City Division Fund Long-Term Debt				<u>\$ 314,470,387</u>	
Total Net Long-Term Debt				<u>\$ 359,204,632</u>	

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA**

Notes to Financial Statements

NOTE 8 – LONG-TERM DEBT (Continued)

	Balance Outstanding As of 12/31/17	Additions / Accretions	Retirements	Balance Outstanding As of 12/31/18	Principal Due Within One Year
Suburban Water Fund					
Water Revenue Bonds					
Series of 2010 A	\$ 11,590,000	\$ -	\$ -	\$ 11,590,000	\$ -
Water Revenue Bonds					
Series of 2011	547,552	-	(115,518)	432,034	110,552
Water Revenue Bonds					
Series of 2015	4,251,695	-	(1,038,960)	3,212,735	1,051,180
Water Revenue Bonds					
Series of 2015 A	8,646,200	-	(299,400)	8,346,800	311,400
Water Revenue Bonds					
Series of 2017	14,900,000	-	-	14,900,000	-
2007 State Pennworks					
Note	1,821,066	-	(169,279)	1,651,787	172,696
2011 Pennsylvania Infrastructure					
Investment Authority Note	1,148,563	-	(70,051)	1,078,512	71,116
Subtotal	\$ 42,905,076	\$ -	\$ (1,693,208)	\$ 41,211,868	\$ 1,716,944
Add Bond Premium	385,473	-	(13,067)	372,406	
Total Suburban Water Fund Debt	\$ 43,290,549	\$ -	\$ (1,706,275)	\$ 41,584,274	
Less Current Maturities				(1,716,944)	
Net Suburban Water Fund					
Long-Term Debt				\$ 39,867,330	
Suburban Wastewater Fund					
2009 Pennsylvania Infrastructure					
Investment Authority Note	\$ 3,692,167	\$ -	\$ (240,892)	\$ 3,451,275	\$ 247,095
2011 Sewer Revenue Bonds					
Series A	1,630,058	-	(69,157)	1,560,901	65,572
2013 Pennsylvania Infrastructure					
Investment Authority Note	2,432,419	-	(137,785)	2,294,634	135,730
2015 Pennsylvania Infrastructure					
Investment Authority Note	740,918	-	(37,005)	703,913	37,380
Total Suburban Wastewater Fund Debt	\$ 8,495,562	\$ -	\$ (484,839)	\$ 8,010,723	\$ 485,777
Less Current Maturities				(485,777)	
Net Suburban Wastewater Fund					
Long-Term Debt				\$ 7,524,946	
City Division Fund					
2013 Water and Sewer Revenue					
Bonds, Series A	\$ 245,590,000	\$ -	\$ -	\$ 245,590,000	\$ -
2013 Water and Sewer Capital					
Appreciation Revenue Bonds,					
Series B	55,494,318	3,206,323	-	58,700,641	435,893
2013 Water and Sewer Revenue					
Bonds, Series C	18,735,000	-	(18,735,000)	-	-
2018 Water and Sewer Revenue					
Bonds (Federally Taxable)	-	18,735,000	-	18,735,000	795,000
Subtotal	\$ 319,819,318	\$ 21,941,323	\$ (18,735,000)	\$ 323,025,641	\$ 1,230,893
Less Bond Discount	(9,498,663)	-	316,620	(9,182,043)	
Total City Division Fund Debt	\$ 310,320,655	\$ 21,941,323	\$ (18,418,380)	313,843,598	
Less Current Maturities				(1,230,893)	
Net City Division Fund Long-Term Debt				\$ 312,612,705	
Total Net Long-Term Debt				\$ 360,004,981	

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA**

Notes to Financial Statements

NOTE 8 – LONG-TERM DEBT (Continued)

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, 2019 to calculate an applicable effective rate of 2.75%.

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, 2019 to calculate an applicable effective rate of 2.51%.

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA**

Notes to Financial Statements

NOTE 8 – LONG-TERM DEBT (Continued)

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.

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 of 3% to 5%.

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

Year	Principal Amount	Total Interest	Total Debt Service
2020	\$ 2,081,372	\$ 1,436,287	\$ 3,517,659
2021	2,092,818	1,406,328	3,499,146
2022	2,147,539	1,351,168	3,498,707
2023	2,201,607	1,299,901	3,501,508
2024	2,194,031	1,250,434	3,444,465
2025-2029	12,705,397	5,050,138	17,755,535
2030-2034	7,433,967	2,095,431	9,529,398
2035-2039	2,885,000	1,262,683	4,147,683
2040-2044	3,410,000	747,224	4,157,224
2045-2047	<u>2,335,000</u>	<u>159,468</u>	<u>2,494,468</u>
	<u>\$ 39,486,731</u>	<u>\$ 16,059,062</u>	<u>\$ 55,545,793</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.

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA**

Notes to Financial Statements

NOTE 8 – LONG-TERM DEBT (Continued)

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.

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:

Year	Principal Amount	Total Interest	Total Debt Service
2020	\$ 542,067	\$ 195,887	\$ 737,954
2021	549,034	184,072	733,106
2022	562,081	169,411	731,492
2023	575,980	153,143	729,123
2024	590,251	136,418	726,669
2025-2029	3,179,155	414,171	3,593,326
2030-2034	1,455,035	50,520	1,505,555
2035-2036	58,011	676	58,687
Total	<u>\$ 7,511,614</u>	<u>\$ 1,304,298</u>	<u>\$ 8,815,912</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.

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA**

Notes to Financial Statements

NOTE 8 – LONG TERM DEBT (Continued)

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.

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.

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

Year	Principal Amount	Total Interest	Total Debt Service
2020	\$ 1,837,406	\$ 13,287,981	\$ 15,125,387
2021	2,286,487	13,318,538	15,605,025
2022	2,711,079	13,396,447	16,107,526
2023	3,102,078	13,520,571	16,622,649
2024	3,456,247	13,699,152	17,155,399
2025-2029	21,436,377	72,814,581	94,250,958
2030-2034	24,821,000	84,451,678	109,272,678
2035-2039	34,197,542	98,520,395	132,717,937
2040-2044	132,335,000	51,833,188	184,168,188
2045-2047	<u>98,990,000</u>	<u>15,219,713</u>	<u>114,209,713</u>
Total	<u>\$ 325,173,216</u>	<u>\$ 390,062,244</u>	<u>\$ 715,235,460</u>

NOTE 9 – INTERFUND BALANCES

During the course of 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:

Fund	2019		2018	
	Interfund Receivables	Interfund Payables	Interfund Receivables	Interfund Payables
Enterprise Funds:				
City Division	\$ -	\$ 29,516	\$ -	\$ 10,394,228
Suburban Water	1,599,692	-	7,576,231	-
Suburban Wastewater	-	1,570,176	2,817,997	-
Total	<u>\$ 1,599,692</u>	<u>\$ 1,599,692</u>	<u>\$ 10,394,228</u>	<u>\$ 10,394,228</u>

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA**

Notes to Financial Statements

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 \$577,732 and \$227,308 as of December 31, 2019 and 2018, 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 \$4,239,816 and \$4,974,553 as of December 31, 2019 and 2018, 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, 2019, through contractual agreements, had construction commitments of \$13,128,891 for various capital projects as compared to \$9,158,021 at year-end 2018. Operating and Capital reserves, construction note proceeds and grants will fund these expenditures.

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 as long as 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, 2019, and 2018.

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA**

Notes to Financial Statements

NOTE 12 – OTHER POSTEMPLOYMENT BENEFITS (Continued)

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 several mutual funds. The following is the Suburban Plan's target asset allocation as of December 31, 2019 and 2018:

<u>Asset Class</u>	<u>Target Allocation</u>
Mutual funds	<u>100%</u>

The annual money-weighted rate of return on investments, net of investment expense, was 23.20% and (7.13%), for the years ended December 31, 2019 and 2018, 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, 2019, and 2018, were as follows:

	<u>2019</u>	<u>2018</u>
Total Plan OPEB Liability	\$ 2,141,848	\$ 2,091,480
Plan Fiduciary Net Position	3,385,901	2,828,188
Plan's Net OPEB Liability/(Asset)	<u>\$ (1,244,053)</u>	<u>\$ (736,708)</u>
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability/(Asset)	158.1%	135.2%

Actuarial Assumptions: The Suburban Plan's net OPEB liability was measured as of December 31, 2019 and 2018, and the plan's total OPEB liability used to calculate the net OPEB liability was determined by actuarial valuations as of January 1, 2019, and 2017, respectively. The actuary utilized update procedures to roll forward the Suburban Plan's total OPEB liability in the January 1, 2019 and 2017 actuarial valuations to the December 31, 2019 and 2018 measurement dates.

The Suburban Plan's total OPEB liability in the January 1, 2019 and 2017 actuarial valuations were 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.
Healthcare Cost Trend Rates (1/1/2017)	0% during 2018 followed by 8.5% during 2019 reduced by .25% per year to an ultimate rate of 5.0% 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
ALLENTOWN, PENNSYLVANIA**

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 and 2017 valuations 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, 2019 and 2018 are summarized in the following table:

<u>Asset Class</u>	<u>Long-Term Expected 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, 2019 and 2018. 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.

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

	Increase (Decrease)		
	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability/(asset) (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 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.

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA**

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, 2018 were as follows:

	Increase (Decrease)		
	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability/(asset) (a) - (b)
Balances as of 12/31/17	\$ 2,018,059	\$ 3,127,964	\$ (1,109,905)
Service cost	7,960	-	7,960
Interest cost	158,365	-	158,365
Differences between expected and actual experience	-	-	-
Contributions - employer	-	13,376	(13,376)
Contributions - members	-	-	-
Net investment income	-	(220,248)	220,248
Benefit payments	(92,904)	(92,904)	-
Plan administrative expenses	-	-	-
Other changes	-	-	-
Net Changes	73,421	(299,776)	373,197
Balances as of 12/31/18	<u>\$ 2,091,480</u>	<u>\$ 2,828,188</u>	<u>\$ (736,708)</u>

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 (7.0%)	Discount Rate (8.0%)	1% Increase (9.0%)
Net OPEB Liability (Asset) 12/31/19	\$ (1,015,854)	\$ (1,244,053)	\$ (1,439,709)
Net OPEB Liability (Asset) 12/31/18	\$ (499,988)	\$ (736,708)	\$ (938,118)

Sensitivity of the Suburban Plan Net OPEB Liability to Changes in the Healthcare Cost Trend Rates: The following presents the December 31, 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 ((19%) decreasing to 4%)	Discount Rate ((20%) decreasing to 5%)	1% Increase ((21%) decreasing to 6%)
Net OPEB Liability (Asset) 12/31/19	\$ (1,462,807)	\$ (1,244,053)	\$ (988,313)

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA**

Notes to Financial Statements

NOTE 12 – OTHER POSTEMPLOYMENT BENEFITS (Continued)

The following presents the December 31, 2018 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 ((7.5%) decreasing to 4.0%) or 1-percentage-point higher ((9.5%) decreasing to 6.0%) than the current healthcare cost trend rates:

	1 % Decrease ((7.5%) decreasing to 4.0%)	Discount Rate ((8.5%) decreasing to 5.0%)	1% Increase ((9.5%) decreasing to 6.0%)
Net OPEB Liability (Asset) 12/31/18	\$ (979,676)	\$ (736,708)	\$ (448,868)

OPEB Expense and Deferred Outflows and Inflows of Resources: For the year ended December 31, 2019 and 2018, the Authority recognized OPEB expense of \$47,394, and \$12,730, respectively for the plan. At December 31, 2019, and 2018, the Authority reported deferred outflows and inflows of resources related to the OPEB plan from the following sources:

	12/31/2019 Outflow/(Inflow)	12/31/2018 Outflow/(Inflow)
Differences between expected and actual experience	\$ 56,117	\$ -
Net difference between projected and actual earnings on OPEB plan investments	(57,508)	373,843
Changes of assumptions	(61,789)	-
Total	<u>\$ (63,180)</u>	<u>\$ 373,843</u>

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

Year Ended December 31:	12/31/2019	12/31/2018
2019	\$ -	\$ 93,461
2020	5,558	93,461
2021	6,748	93,461
2022	8,988	96,460
2023	(84,474)	-
Total	<u>\$ (63,180)</u>	<u>\$ 376,843</u>

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.

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA**

Notes to Financial Statements

NOTE 12 – OTHER POSTEMPLOYMENT BENEFITS (Continued)

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 of 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, 2019 and 2018, and were determined by actuarial valuations as of January 1, 2019 and 2017, respectively. The actuary utilized update procedures to roll forward the total OPEB liability for the City Plan in the January 1, 2019, and 2017 actuarial valuations to the December 31, 2019, and 2018 measurement dates.

The City Plan's total OPEB liability in the January 1, 2019 and 2017 actuarial valuations were 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	3.75%
Healthcare Cost Trend Rates (1/1/2019)	20% during 2020 followed by 8.5% during 2021 reduced by .25% per year to an ultimate rate of 5.0% per year.
Healthcare Cost Trend Rates (1/1/2017)	0% during 2018 followed by 8.5% during 2019 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, and 2017 valuations were based on historical results as a recent experience study was not completed.

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA**

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, 2019 were as follows:

	Increase (Decrease) Total OPEB Liability (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 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	\$ 2,944,923

*- 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.

Changes in the total OPEB liability for the City Plan for the year ended December 31, 2018 were as follows:

	Increase (Decrease) Total OPEB Liability (a)
Balances as of 12/31/17	\$ 1,828,178
Service cost	142,941
Interest cost	73,458
Differences between expected and actual experience	-
Benefit payments	(24,498)
Other changes	-
Net Changes	191,901
Balances as of 12/31/18	\$ 2,020,079

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA**

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 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 (2.75%)	Discount Rate (3.75%)	1% Increase (4.75%)
Total OPEB Liability 12/31/19	\$ 3,255,902	\$ 2,944,923	\$ 2,659,345
Total OPEB Liability 12/31/18	2,239,339	2,020,079	1,819,543

Sensitivity of the City Plan Total OPEB Liability to Changes in the Healthcare Cost Trend Rates: 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 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 ((19%) decreasing to 4%)	Discount Rate ((20%) decreasing to 5%)	1% Increase ((21%) decreasing to 6%)
Net OPEB Liability (Asset) 12/31/19	\$ 2,523,839	\$ 2,944,923	\$ 3,457,031

The following presents the December 31, 2018 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 ((7.5%) decreasing to 4.0%) or 1-percentage-point higher ((9.5%) decreasing to 6.0%) than the current healthcare cost trend rates:

	1 % Decrease ((7.5%) decreasing to 4.0%)	Discount Rate ((8.5%) decreasing to 5.0%)	1% Increase ((9.5%) decreasing to 6.0%)
Net OPEB Liability (Asset) 12/31/18	\$ 1,707,380	\$ 2,020,079	\$ 2,404,462

OPEB Expense and Deferred Outflows of Resources: For the year ended December 31, 2019 and 2018, the Authority recognized OPEB expense of \$280,281 and \$216,399, respectively for the plan. The plan is funded on a "pay as you go" basis. At December 31, 2019 the Authority reported deferred outflows of resources related to the OPEB plan from the following sources:

	12/31/2019 Outflow/(Inflow)
Differences between expected and actual experience	\$ 359,916
Changes of assumptions	302,177
Total	<u>\$ 662,093</u>

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA**

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>	
2020	\$ 43,674
2021	43,674
2022	43,674
2023	43,674
2024	43,674
Thereafter	<u>443,723</u>
Total	<u>\$ 662,093</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 “invested 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, 2019 and 2018, the average active employee contribution rate was 1.0% of annual pay, and the Authority's average contribution rate was 14.98% and 11.56%, respectively, of covered annual payroll.

B. Net Pension Liability

The Authority's net pension liability was measured as of December 31, 2018 and 2017, and the total pension liability used to calculate the net pension liabilities were determined by actuarial valuations as of December 31, 2018, and December 31, 2016, respectively. The actuary utilized update procedures to roll forward the total pension liability in the December 31, 2016 actuarial valuation to the December 31, 2017 measurement date.

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA**

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 and December 31, 2016 actuarial valuation was determined using the following actuarial assumptions:

	December 31, 2018 Valuation	December 31, 2016 Valuation
Investment rate of return	5.25%, net of pension plan investment expense, including inflation	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%	Age/Merit Scale including inflation ranging from 2.80% to 7.05%
Inflation	2.2%	3.0%

Mortality rates Pre-Retirement for the December 31, 2018 and 2016 valuations were based on the RP-2000 Scale with 1 year set back for males and 5 year set back for females. Mortality rates Post-Retirement for the December 31, 2018 and 2016 valuations were 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 and 2016 valuations 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, 2018 and 2016 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% and 3.0% at December 31, 2018 and 2016 respectively.
- 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
ALLENTOWN, PENNSYLVANIA**

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 Allocation	Nominal Rate of Return	Long-Term Expected Real 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%

System Nominal and Real Rates of Return by Asset Class
12/31/2016 Valuation

Asset Class	Target Allocation	Nominal Rate of Return	Long-Term Expected Real Rate of Return
Domestic Equities (large capitalized firms)	25.0%	8.6%	5.6%
Domestic Equities (small capitalized firms)	15.0%	10.2%	7.2%
International Equities (international developed markets)	15.0%	7.6%	4.6%
International Equities (emerging markets)	10.0%	11.7%	8.7%
Real Estate	20.0%	9.2%	6.2%
Fixed income	15.0%	5.1%	2.1%

Based on the three part analysis, the PMRS Board established the System's Long-Term Expected Rate of Return at 7.0%, and 7.3% for the December 31, 2018 and 2016 valuations, 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 and 2016 valuations.

The System's policy in regards 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 on the basis of 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 market 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 and 2016 actuarial valuations.

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 Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances at 12/31/2018 (based on 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 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 of employee contributions	(1,073,743)	(1,073,743)	-
Administrative expense	-	(62,006)	62,006
Net changes	2,681,675	(549,182)	3,230,857
Balances at 12/31/19 (based on a 12/31/18 measurement date)	<u>\$ 30,412,440</u>	<u>\$ 25,424,328</u>	<u>\$ 4,988,112</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)

	Increase (Decrease)		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
	(a)	(b)	(a) - (b)
Balances at 12/31/2017 (based on 12/31/2016 measurement date)	\$ 25,951,527	\$ 21,662,718	\$ 4,288,809
Changes for the year:			
Service cost	1,543,865	-	1,543,865
Interest	1,401,384	-	1,401,384
Changes of benefits	-	-	-
Changes of assumptions	-	-	-
Differences between expected and actual experience	-	-	-
Contributions - employer	-	1,106,875	(1,106,875)
Contributions - member	-	543,474	(543,474)
Net investment income/(loss)	-	3,886,626	(3,886,626)
Benefit payments, including refunds of employee contributions	(1,166,011)	(1,166,011)	-
Administrative expense	-	(60,172)	60,172
Net changes	<u>1,779,238</u>	<u>4,310,792</u>	<u>(2,531,554)</u>
Balances at 12/31/18 (based on a 12/31/17 measurement date)	<u>\$ 27,730,765</u>	<u>\$ 25,973,510</u>	<u>\$ 1,757,255</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 and 2016 actuarial valuations:

	1% Decrease (4.25%)	Discount Rate 12/31/16 & 12/31/18 Valuation (5.25%)	1% Increase (6.25%)
Authority's net pension liability 12/31/18	\$8,292,759	\$4,988,112	\$2,211,762
Authority's net pension liability 12/31/17	\$4,819,222	\$1,757,255	\$(814,523)

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, 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.

For the year ended December 31, 2018, the Authority recognized pension expense of \$227,782, \$114,663, and \$845,775 in the Suburban Water Fund, Suburban Wastewater Fund, and City Fund, respectively.

At December 31, 2019 and 2018 the Authority reported deferred outflows and deferred inflows of resources related to pensions from the following sources:

	2019 Deferred Outflows/(Inflows) of Resources	2018 Deferred Outflows/(Inflows) of Resources
Differences between expected and actual experience	\$ 1,213,661	\$ 923,196
Changes in assumptions	471,179	588,972
Net difference between projected and actual earnings on pension plan investments	445,758	(1,885,036)
Contributions subsequent to the measurement date	<u>1,414,635</u>	<u>1,145,082</u>
Total	<u>\$ 3,545,233</u>	<u>\$ 772,214</u>

The \$1,414,635 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:	
2020	\$ 514,388
2021	260,769
2022	351,874
2023	842,447
2024	80,559
Thereafter	80,561

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. 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. Fifty-six and fifty-three employees contributed into the plan during 2019 and 2018 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, 2019. 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 Markel 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 2019 and 2018 the Authority paid \$290,809 and \$282,918 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 79 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 net premium (after payroll audit) of \$221,805 in 2018 and a gross premium \$210,054 in 2019. As of January 1, 2019, the Authority had accrued \$49,484 in Rate Stabilization Fund (RSF) credits which were available to reduce the Authority's 2019 premium. Any unused RSF credits will be rolled over to 2020, and the Trust will add investment income to the unused balance. The Authority also received dividends from the Trust of \$6,059 in 2018 and \$9,540 in 2019.

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 273 municipal entities as of October 1, 2019, 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, 2019 and December 31, 2018 totaled \$1,684,981 and \$1,404,862, respectively.

The Authority also purchases property coverage through CNA, brokered through Murray Securus. For 2019 and 2018, insurance costs amounted to \$204,000 and \$181,555, 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 2019 and 2018, 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 – RESTATEMENT

The Authority recorded the cumulative effect of applying the provisions of GASB Statement No. 75 as a restatement of beginning net position as of January 1, 2018. Net position as of January 1, 2018 was decreased by \$72,458, and \$943,197 in the Suburban Water Fund, and the City Division fund, respectively. The effect on beginning balances for calendar year 2018 is as follows:

Description	January 1, 2018 as Previously Reported	Restatement	January 1, 2018 as Restated
Net OPEB Liability/(Asset) (GASB 75)			
- Suburban Water Fund	\$ (1,182,363)	\$ 72,458	\$ (1,109,905)
- City Division Fund	884,981	943,197	1,828,178
Total	(297,382)	1,015,655	718,273
Net Position			
- Suburban Water Fund	96,699,841	(72,458)	96,627,383
- City Division Fund	(44,180,094)	(943,197)	(45,123,291)
Total	\$ 52,519,747	\$ (1,015,655)	\$ 51,504,092

NOTE 19 – SUBSEQUENT EVENTS

Subsequent to year end, a global pandemic due to the spread of the COVID-19 coronavirus caused the United States government to declare a national emergency. The pandemic has led to widespread voluntary and government-mandated closings of local stores and businesses, which has resulted in significant job losses. These job losses have the potential to have a significant impact on all aspects of the Authority's operations. In addition, due to the temporary closure of all businesses that are not deemed life sustaining, State and Federal tax revenues are also significantly decreased. This decrease could result in less grant money that is relied upon by local municipalities to fund specific projects. In addition, the Authority's own source revenue or derived revenues could be affected negatively. Overall, decreased funding could result in the Authority having to curtail or eliminate some services.

**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**

	*	*	*	*	*
	2019	2018	2017	2016	2015
Total Pension Liability					
Service Costs	\$ 1,688,127	\$ 1,543,865	\$ 1,452,861	\$ 1,488,350	\$ 677,165
Interest	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	(1,073,743)	(1,166,011)	(915,177)	(600,285)	(544,982)
Net Change in Total Pension Liability	2,681,675	1,779,238	3,517,037	2,261,147	1,500,727
Total Pension Liability - beginning	27,730,765	25,951,527	22,434,490	20,173,343	18,672,616
Total Pension Liability - ending (a)	<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	\$ 1,141,302	\$ 1,106,875	\$ 972,122	\$ 978,336	\$ 365,907
Contributions - Member	602,779	543,474	526,823	507,893	473,935
Net Investment Income	(1,157,514)	3,886,626	1,670,359	(99,517)	947,378
Benefit Payments, Including Refunds of Member Contributions	(1,073,743)	(1,166,011)	(915,177)	(600,285)	(544,982)
Administrative Expense	(62,006)	(60,172)	(63,095)	(52,516)	(41,411)
Net Change in Plan Fiduciary Net Position	(549,182)	4,310,792	2,191,032	733,911	1,200,827
Plan Fiduciary Net Position - beginning	25,973,510	21,662,718	19,471,686	18,737,775	17,536,948
Plan Fiduciary Net Position - ending (b)	<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>\$ 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	83.60%	93.66%	83.47%	86.79%	92.88%
Covered Payroll	\$ 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	50.36%	19.24%	48.70%	33.81%	62.03%

* - Information only available for five 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**

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Actuarially Determined Contribution	\$ 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	1,414,635	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	\$ 9,441,320	\$ 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	14.98%	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	Entry Age
Amortization Method	Level Dollar Closed
Remaining Amortization Period	8 years
Asset Valuation Method	Based Upon Municipal Reserves in PMRS (Fair Value)
Inflation	3.0%
Salary Increases	Age/Merit Scale including inflation ranging from 3.0% to 8.3%.
Investment Rate of Return	5.25%, net of pension plan investment expense, including inflation.
Pre-Retirement Mortality	Males - RP 2000 with 1 year set back Females - RP 2000 with 5 year set back
Post-Retirement Mortality:	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**

	*	*	*
	2019	2018	2017
Total OPEB Liability Suburban Plan			
Service Cost	\$ 7,065	\$ 7,960	\$ 7,580
Interest	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	(110,336)	(92,904)	(61,525)
Net Change in Suburban Plan Total OPEB Liability	50,368	73,421	97,820
Suburban Plan Total OPEB Liability - Beginning	2,091,480	2,018,059	1,920,239
Suburban Plan Total OPEB Liability - Ending (a)	<u>\$ 2,141,848</u>	<u>\$ 2,091,480</u>	<u>\$ 2,018,059</u>
Suburban Plan Fiduciary Net Position			
Contributions - Employer	\$ 22,928	\$ 13,376	\$ -
Net Investment Income	645,121	(220,248)	485,937
Benefit Payments	(110,336)	(92,904)	(61,526)
Administrative Expense	-	-	-
Net Change in Suburban Plan Fiduciary Net Position	557,713	(299,776)	424,411
Suburban Plan Fiduciary Net Position - Beginning	2,828,188	3,127,964	2,703,553
Suburban Plan Fiduciary Net Position - Ending (b)	<u>\$ 3,385,901</u>	<u>\$ 2,828,188</u>	<u>\$ 3,127,964</u>
Suburban Plan Net OPEB Liability/(Asset) - Ending (a) - (b)	<u>\$ (1,244,053)</u>	<u>\$ (736,708)</u>	<u>\$ (1,109,905)</u>
Suburban Plan Fiduciary Net Position as a Percentage of the Total Suburban Plan OPEB Liability	158.08%	135.22%	155.00%
Covered Payroll Suburban Plan	\$ 1,152,146	\$ 1,098,115	\$ 1,045,824
Suburban Plan Net OPEB Liability/(Asset) as a Percentage of Covered Payroll	-107.98%	-67.09%	-106.13%

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

** - The 12/31/2019 measurement date had a change in assumptions related to Healthcare Cost Trend Rates, as compared to previous years.

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA**

**REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF CONTRIBUTIONS SUBURBAN OPEB PLAN**

LAST 10 FISCAL YEARS

	*	*	*
	2019	2018	2017
Actuarially Determined Contribution	\$ -	\$ -	\$ -
Contribution in Relation to the Actuarially Determined Contribution	<u>22,928</u>	<u>13,376</u>	<u>-</u>
Contribution Deficiency (Excess)	<u>\$ (22,928)</u>	<u>\$ (13,376)</u>	<u>\$ -</u>
Suburban Plan Covered Payroll	\$ 1,152,146	\$ 1,098,115	\$ 1,045,824
Contributions as a Percentage of Covered Payroll	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	2.25%
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 three 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

	[*] <u>2019</u>	[*] <u>2018</u>	[*] <u>2017</u>
Annual money-weighted rate of return, net of investment expense	23.20%	-7.13%	18.18%

* - Information only available for three 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**

	*	*
	2019	2018
Total OPEB Liability City Division Plan		
Service Cost	\$ 184,957	\$ 142,941
Interest	106,760	73,458
Changes of Benefit Terms	(55,110)	-
Differences Between Expected and Actual Experience	383,657	-
Changes of Assumptions	322,110	-
Benefit Payments	(17,530)	(24,498)
Net Change in City Division Plan Total OPEB Liability	924,844	191,901
City Division Plan Total OPEB Liability - Beginning	2,020,079	1,828,178
City Division Plan Total OPEB Liability - Ending (a)	<u>\$ 2,944,923</u>	<u>\$ 2,020,079</u>
Covered Payroll City Division Plan	\$ 4,322,635	\$ 3,279,472
City Division Plan Total OPEB Liability as a Percentage of Covered-Employee Payroll	68.13%	61.60%

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

** - The 12/31/2019 measurement date had a change in assumptions related to Healthcare Cost Trend Rates, as compared to previous years.

*** - The 12/31/2019 measurement date had a change in benefit terms related to the length of benefit coverage for union employees hired after January 1, 2017.

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 STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
SUBURBAN WASTEWATER FUND
For the year ended December 31, 2019**

	Western Lehigh Interceptor System	West. Weisenberg Wastewater	Common Rate Wastewater Fund	Other Wastewater Funds	Total Wastewater Fund
Operating Revenues					
Charges for Services	\$ 5,132,674	\$ 358,451	\$ 725,612	\$ 7,623,419	\$ 13,840,156
Other Income	119,604	17	48,671	73,608	241,900
Total Operating Revenues	5,252,278	358,468	774,283	7,697,027	14,082,056
Operating Expenses					
Salaries and Wages	182,523	56,832	137,653	174,660	551,668
Employee Benefits	93,007	28,858	72,917	132,692	327,474
General and Administrative	173,308	12,035	39,470	162,329	387,142
Utilities	104,270	25,330	42,643	201,787	374,030
Materials and Supplies	188,087	21,313	42,288	83,731	335,419
Miscellaneous Services	390,331	38,448	99,416	5,802,402	6,330,597
Treatment and Transportation	3,367,315	-	18,253	-	3,385,568
Depreciation and Amortization	553,206	135,327	147,902	3,734,637	4,571,072
Total Operating Expenses	5,052,047	318,143	600,542	10,292,238	16,262,970
Operating Income (Loss)	200,231	40,325	173,741	(2,595,211)	(2,180,914)
Nonoperating Revenues (Expenses)					
Tapping and Capital Recovery Fees	1,256,059	-	48,546	269,144	1,573,749
Inspection and Plan Reviews	-	-	40,758	1,760	42,518
Interest Earnings	199,551	377	612	132,307	332,847
Interest Expense	(85,033)	(29,831)	(83,543)	(14,707)	(213,114)
Other Expense	(25,546)	-	(1,353)	(17,231)	(44,130)
Other Income	111	-	360	240	711
Total Nonoperating Revenues (Expenses)	1,345,142	(29,454)	5,380	371,513	1,692,581
Increase (Decrease) in net position before capital contributions	1,545,373	10,871	179,121	(2,223,698)	(488,333)
Capital Contributions					
Capital Assets Provided by Developers and Others	-	-	15,000	-	15,000
Total Capital Contributions	-	-	15,000	-	15,000
Increase (Decrease) in Net Position	1,545,373	10,871	194,121	(2,223,698)	(473,333)
Net Position at Beginning of Year	37,246,871	2,750,760	10,001,745	49,863,296	99,862,672
Net Position at End of Year	\$ 38,792,244	\$ 2,761,631	\$ 10,195,866	\$ 47,639,598	\$ 99,389,339

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, 2019**

Financial Institution	Total	Enterprise Funds		
		Suburban Division		City Division
		Water	Wastewater	Water & Wastewater
Bank of New York	\$ 3,048,772	\$ 3,048,772	\$ -	\$ -
Financial Northeastern Companies	775,872	13,327	762,545	-
Branch Banking & Trust	11,481,136	6,660,076	4,821,060	-
Fulton Bank	4,324,768	2,328,089	-	1,996,679
PNC Bank (1)	2,579,136	767,622	1,811,514	-
M & T Bank	57,462,674	-	-	57,462,674
Total	<u>\$ 79,672,358</u>	<u>\$ 12,817,886</u>	<u>\$ 7,395,119</u>	<u>\$ 59,459,353</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, 2019**

	<u>Date of Purchase</u>	<u>Date of Maturity</u>	<u>% Rate of Return</u>	<u>Amount</u>	<u>Total By Fund</u>
CERTIFICATES OF DEPOSIT:					
Enterprise Funds:					
<u>Suburban Water</u>					
National Penn Bank - Jaindl Elementary	7/23/19	1/23/20	0.02	\$ 25,527	
Crossfirst Bank	1/24/18	1/24/20	2.00	249,062	
Flagstar Bank FSNB	1/26/18	1/27/20	2.15	249,097	
Volunteer State Bank	2/9/18	2/10/20	2.00	245,103	
Independent Bank	7/29/19	7/29/21	2.00	245,069	
Reading Co-Operative Bank	10/21/19	10/21/21	1.80	249,023	
Metabank	10/31/19	2/26/21	1.75	248,022	
Farmers State Bank	11/6/19	10/6/21	1.60	248,569	
First National Bank of Ottawa	11/8/19	11/8/21	1.70	247,985	
PSDLAF Flex Pool	12/13/19	1/31/20	1.50	155,000	
PSDLAF Flex Pool	12/13/19	1/31/20	1.55	1,000,000	<u>\$ 3,162,457</u>

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA**

**COMBINED SCHEDULE OF CERTIFICATES OF DEPOSIT - ALL FUNDS (Continued)
CURRENT AND RESTRICTED FUNDS
December 31, 2019**

	<u>Date of Purchase</u>	<u>Date of Maturity</u>	<u>% Rate of Return</u>	<u>Amount</u>	<u>Total By Fund</u>
CERTIFICATES OF DEPOSIT:					
Enterprise Funds:					
<u>Suburban Wastewater</u>					
Eaglebank	5/31/18	3/31/20	2.600	\$ 245,583.10	
BMO Harris Bank National Assn	5/31/18	6/1/20	2.800	246,178.45	
UBS Bank USA	6/13/18	6/15/20	2.800	201,042.00	
Discover Bank	11/7/18	11/9/20	3.000	247,805.25	
Citibank, National Assn	1/9/19	1/11/21	2.900	248,084.55	
Wells Fargo Bank, National Assn	1/9/19	1/11/21	2.900	252,147.36	
Ally Bank	1/10/19	1/11/21	2.800	251,880.93	
Bank of America	1/10/19	1/10/20	2.600	249,064.74	
Union Bank	1/16/19	7/16/20	2.600	250,267.41	
Texas Trust CU	2/21/19	2/22/21	2.800	248,140.90	
American First CU	3/15/19	9/15/20	2.550	125,792.50	
The Jefferson Bank	3/29/19	3/29/21	2.500	247,499.00	
Sallie Mae Bank	4/10/19	4/12/21	2.450	250,432.88	
Continental Bank	4/15/19	2/16/21	2.40	98,806.54	
TIAA, FSB	4/30/19	11/2/20	2.400	250,546.29	
University of Iowa Community CU	5/15/19	5/14/21	2.500	250,760.24	
Envision CU	6/7/19	6/7/21	2.500	248,920.08	
Barclays Bank Delaware	7/17/19	7/19/21	2.000	246,163.75	
Franklin Synergy Bank	7/23/19	7/23/21	2.100	249,069.72	
Goldman Sachs Bank USA	8/21/19	8/23/21	1.900	249,831.66	
United Community Bank of North Dakota	8/28/19	8/27/21	1.900	245,115.15	
Webbank	9/23/19	9/23/21	1.750	245,029.40	
New York Community Bank	9/27/19	9/27/21	1.800	125,216.25	
Guaranty	10/25/19	10/25/21	1.750	249,019.92	
Greenwood CU	11/20/19	11/22/21	1.700	245,066.15	
Lafayette FCU	11/22/19	11/22/21	1.700	248,972.61	
State Bank of India	11/27/19	11/29/21	1.850	250,672.50	
JP Morgan Chase Bank, National Assoc	11/29/19	11/29/21	1.800	245,166.60	
PSDLAF Flex Pool	12/13/19	1/31/20	1.50	245,000.00	
PSDLAF Flex Pool	12/13/19	1/31/20	1.5	400,000.00	
PSDLAF Flex Pool	12/13/19	1/31/20	1.5	600,000.00	\$ 7,757,276
TOTAL CERTIFICATES OF DEPOSIT					<u>\$ 10,919,733</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, 2019

For the Year Ended December 31, 2019

	Debt Service Reserve Accounts	Debt Service Accounts	Construction Accounts	Total
RECEIPTS:				
Interest Income	\$ 23,892	\$ -	\$ 1,822	\$ 25,714
Bonds Payable	-	-	-	-
Bond Refinancing	-	-	-	-
Treasury Notes Matured	-	-	2,460,135	-
Receipts from LCA	-	1,158,044	-	1,158,044
Total Receipts	23,892	1,158,044	2,461,957	1,183,758
DISBURSEMENTS:				
Interest Payments	-	1,158,044	-	1,158,044
Water Capital Expenditures	-	-	6,312,848	6,312,848
Principal Reduction	-	-	-	-
2001 Bonds Payable	-	-	-	-
Financing Costs	-	-	-	-
Underwriters Discount	-	-	-	-
Transfers to Debt Service Accounts	-	-	-	-
Miscellaneous Expense	-	-	-	-
Total Disbursements	-	1,158,044	6,312,848	7,470,892
EXCESS OF RECEIPTS OVER (UNDER) DISBURSEMENTS	23,892	-	(3,850,891)	(3,826,999)
TRANSFERS TO (FROM) - NET	-	-	-	-
EXCESS OF RECEIPTS OVER (UNDER) DISBURSEMENTS AND TRANSFERS	23,892	-	(3,850,891)	(3,826,999)
BALANCE, JANUARY 1, 2019	1,454,824	32	5,573,744	7,028,600
BALANCE, DECEMBER 31, 2019	<u>\$ 1,478,716</u>	<u>\$ 32</u>	<u>\$ 1,722,853</u>	<u>\$ 3,201,601</u>
BALANCE CONSISTS OF:				
Cash and Cash Equivalents	\$ 1,478,716	\$ 32	\$ 1,722,853	\$ 3,201,601
Certificates of Deposit (CD): (none)	-	-	-	-
CD Total	-	-	-	-
Cash and CD Total	<u>\$ 1,478,716</u>	<u>\$ 32</u>	<u>\$ 1,722,853</u>	<u>\$ 3,201,601</u>

Note: The Cash and Cash Equivalent amount on this schedule balances to the financial statement as follows:

Cash and Cash Equivalent \$3,201,601 plus Other Developer Savings \$373,674 equals \$3,575,275.

The Certificates of Deposit amount on this schedule balances to the financial statement as follows:

Certificate of Deposit \$0 plus Other Developers Investment Certificates of Deposit \$25,527 equals \$25,527.

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA**

**BUDGETARY COMPARISON SCHEDULE
For the Year Ended December 31, 2019
(With comparative actual amounts for Year Ended December 31, 2018)**

	2019				Variance of 2019 Actual Data to	
	Budgeted Amounts			2018	Final	2018
	Original	Final	Actual	Actual	Budget	Actual
OPERATING REVENUES:						
Charges for Services	\$ 59,778,018	\$ 59,778,018	\$ 60,277,835	\$ 58,677,488	\$ 499,817	\$ 1,600,347
Rent	87,860	87,860	125,253	98,405	37,393	26,848
Other Income	465,297	465,297	685,371	731,861	220,074	(46,490)
Total Operating Revenues	60,331,175	60,331,175	61,088,459	59,507,754	757,284	1,580,705
OPERATING EXPENSES						
Salaries and Wages	7,468,727	7,468,727	7,986,369	7,733,414	(517,642)	252,955
Benefits, General and Administrative	7,739,398	7,739,398	8,814,517	7,404,970	(1,075,119)	1,409,547
Utilities	3,026,040	3,026,040	2,761,604	2,767,557	264,436	(5,953)
Materials and Supplies	2,571,870	2,559,870	2,021,959	1,827,516	537,911	194,443
Miscellaneous Services	11,339,654	11,351,654	10,779,771	10,516,940	571,883	262,831
Treatment and Transportation	2,661,555	2,661,555	3,395,115	3,553,580	(733,560)	(158,465)
Depreciation and Amortization	13,170,765	13,170,765	13,008,758	13,122,963	162,007	(114,205)
Total Operating Expenses	47,978,009	47,978,009	48,768,093	46,926,940	(790,084)	1,841,153
OPERATING LOSS	12,353,166	12,353,166	12,320,366	12,580,814	(32,800)	(260,448)
NONOPERATING REVENUES (EXPENSES):						
Tapping and Capital Recovery Fees	1,267,000	1,267,000	3,699,652	2,128,727	2,432,652	1,570,925
Meter Sales	308,000	308,000	117,229	93,656	(190,771)	23,573
Inspection and Plan Reviews	169,000	169,000	884,107	1,133,146	715,107	(249,039)
Interest Earnings	165,000	165,000	1,705,656	1,525,375	1,540,656	180,281
Interest Expense	(20,629,504)	(20,629,504)	(21,144,726)	(20,584,072)	(515,222)	(560,654)
Other Expense	(36,100)	(36,100)	(1,402,161)	(3,923,662)	(1,366,061)	2,521,501
Other Income	47,000	47,000	154,298	153,103	107,298	1,195
Total Nonoperating Revenues (Expenses)	(18,709,604)	(18,709,604)	(15,985,945)	(19,473,727)	2,723,659	3,487,782
Increase (decrease) in net assets before capital contributions	(6,356,438)	(6,356,438)	(3,665,579)	(6,892,913)	2,690,859	3,227,334
Capital Contributions:						
Capital Grant	-	-	-	212,688	-	(212,688)
Capital Assets Provided by Developers and Others	1,645,000	1,645,000	1,731,419	1,616,004	86,419	115,415
Total Capital Contributions	1,645,000	1,645,000	1,731,419	1,828,692	86,419	(97,273)
Increase (Decrease) in Net Position	\$ (4,711,438)	\$ (4,711,438)	\$ (1,934,160)	\$ (5,064,221)	\$ 2,777,278	\$ 3,130,061

STATISTICAL SECTION

Sources: *Unless otherwise noted, the information in these schedules is derived from comprehensive annual 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**

	2010	2011	2012	2013	2014
Net Assets:					
Invested in Capital Assets, Net of Related Debt	\$ 150,240,105	\$ -	\$ -	\$ -	\$ -
Restricted for Debt Service	1,734,304	-	-	-	-
Restricted for Capital Projects	-	-	-	-	-
Unrestricted	23,479,760	-	-	-	-
Net Position:					
Net Investment in Capital Assets		148,488,162	150,965,827	152,069,658	149,158,789
Restricted for Debt Service		1,744,341	1,733,035	1,207,927	1,209,103
Unrestricted		24,921,328	29,853,215	23,050,748	20,106,131
Total Net Assets	\$ 175,454,169	\$ 175,153,831	\$ 182,552,077	\$ 176,328,333	\$ 170,474,023
	2015	2016	2017	2018	2019
Net Assets:					
Invested in Capital Assets, Net of Related Debt	\$ -	\$ -	\$ -	\$ -	\$ -
Restricted for Debt Service	-	-	-	-	-
Restricted for Capital Projects	-	-	-	-	-
Unrestricted	-	-	-	-	-
Net Position:					
Net Investment in Capital Assets	147,742,061	152,434,977	162,309,930	159,792,232	168,787,946
Restricted for Debt Service	1,209,239	1,209,379	1,365,470	1,380,654	1,043,094
Unrestricted	11,658,428	1,944,553	(10,549,848)	(14,127,210)	(24,719,524)
Total Net Assets/ Net Position	\$ 160,609,728	\$ 155,588,909	\$ 153,125,552	\$ 147,045,676	\$ 145,111,516

Notes:

Beginning in 2011 the amounts reported reflect the adoption of GASB 63, which resulted in replacing the term "Net Assets" with the term "Net Position". Amounts prior to 2011 have not been adjusted to reflect the adoption of GASB 63.

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) (4) Increase (Decrease) in Net Assets/ Net Position		Capital Contributions	(1) (2) (3) (4) Change in Net Assets/ Net Position			
					Before Capital Contributions						
2010	\$ 20,375,996	\$ 20,713,602	\$ (337,606)	\$ (642,365)	\$ (979,971)	\$	2,896,624	\$	1,916,653		
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	48,768,093	12,320,366	(15,985,945)	(3,665,579)		1,731,419		(1,934,160)		

NOTES:

(1) Beginning in 2011 the amounts reported reflect the adoption of GASB 63, which resulted in replacing the term "Net Assets" with the term "Net Position". Amounts prior to 2011 have not been adjusted to reflect the adoption of GASB 63.

(2) 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.

(3) 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.

(4) 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**

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<u>Suburban - Water Fund (1)</u>										
Operating Revenues:										
Customer Charges:										
Large Industrial	\$ 511,935	\$ 579,532	\$ 668,025	\$ 872,859	\$ 1,052,611	\$ 1,088,772	\$ 1,101,016	\$ 1,014,054	\$ 1,055,882	\$ 1,118,032
Industrial	515,357	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
Commercial/Institutional	1,230,749	736,500	796,489	839,616	870,446	934,255	1,044,364	1,134,993	1,193,232	1,286,316
Residential	2,967,458	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
Other	64,729	70,089	75,088	88,464	79,414	102,100	116,829	107,273	145,911	143,311
Private Fire Service	574,668	588,050	602,431	617,482	667,741	709,983	757,651	795,121	830,655	846,199
Public Fire Service	330,823	331,853	344,763	346,552	348,793	350,225	354,805	357,410	342,867	378,629
Total Charges for Service	6,195,719	6,460,557	6,948,557	7,517,127	8,066,005	8,481,360	8,676,844	8,863,788	9,209,531	9,780,116
Other Income	184,544	39,915	73,532	20,941	42,121	51,327	41,152	99,307	40,949	25,172
Rent	27,861	127,819	119,003	80,930	110,396	111,745	97,011	91,019	98,405	125,253
Total Operating Revenues	6,408,124	6,628,291	7,141,092	7,618,998	8,218,522	8,644,432	8,815,007	9,054,114	9,348,885	9,930,541
Nonoperating Revenues:										
Tapping & Capital Recovery Fees	239,688	117,797	264,493	219,845	351,871	276,202	426,177	455,405	221,405	418,775
Meter Sales	112,034	95,160	101,659	105,361	81,781	88,082	156,365	112,468	85,259	94,763
Inspection, Plan Reviews, & Project Reimbursements	112,024	73,321	75,386	101,072	102,307	207,992	160,751	154,433	183,148	393,187
Interest Income	143,933	95,368	74,852	54,544	47,092	54,422	91,619	127,486	255,439	179,191
Other Income	203,083	291,384	326,708	302,927	134,258	53,513	112,426	109,343	86,971	93,928
Total Nonoperating Revenues	810,762	673,030	843,098	783,749	717,309	680,211	947,338	959,135	832,222	1,179,844
Total Water Fund Revenues	7,218,886	7,301,321	7,984,190	8,402,747	8,935,831	9,324,643	9,762,345	10,013,249	10,181,107	11,110,385
<u>Suburban - Wastewater Fund (1)</u>										
Operating Revenues:										
User Charges	13,773,298	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
Other Income	194,574	216,246	164,305	97,876	213,335	252,802	116,267	290,406	294,099	241,900
Total Operating Revenues	13,967,872	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
Nonoperating Revenues:										
Tapping & Capital Recovery Fees	204,392	142,319	1,751,039	876,328	253,524	2,385,116	1,165,372	449,376	523,526	1,573,749
Meter Sales	-	-	-	-	-	-	12,000	-	-	-
Interest Income	153,672	111,884	115,115	100,112	87,753	109,829	118,529	162,034	222,306	332,847
Inspection, Plan Reviews, & Project Reimbursements	23,581	573	266	26,372	502,204	689	31,181	12,444	37,773	42,518
Other Income	6,315	6,970	435	480	630	930	1,090	7,520	690	711
Total Nonoperating Revenues	387,960	261,746	1,866,855	1,003,292	844,111	2,496,564	1,328,172	631,374	784,295	1,949,825
Total Wastewater Fund Revenues	14,355,832	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
<u>City Fund (1)*</u>										
Operating Revenues:										
Customer Charges:										
Industrial				203,379	414,857	441,971	439,687	456,835	531,748	558,090
Commercial/Institutional				1,290,438	2,796,800	2,964,011	2,917,340	3,040,810	3,281,625	3,264,399
Residential				4,353,635	9,850,719	9,979,086	10,213,236	10,571,269	11,003,695	11,249,045
User Charges				7,296,874	14,217,123	10,376,636	14,686,290	14,984,978	15,265,064	15,920,317
Other				933,636	3,182,799	3,055,596	3,278,630	3,684,596	5,600,408	5,605,750
Private Fire Service					57,824	60,184	63,309	63,635	64,322	59,377
Public Fire Service					540	1,015	720	540	765	585
Total Charges for Service				14,077,962	30,520,662	26,878,499	31,599,212	32,802,663	35,747,627	36,657,563
Other Income				89,372	67,024	85,530	74,245	93,262	396,813	418,299
Total Operating Revenues				14,167,334	30,587,686	26,964,029	31,673,457	32,895,925	36,144,440	37,075,862
Nonoperating Revenues:										
Tapping & Capital Recovery Fees				12,050	58,278	236,343	764,853	725,230	1,383,796	1,707,128
Meter Sales				1,624	10,795	13,272	13,319	17,187	8,397	22,466
Inspection, Plan Reviews, & Project Reimbursements				2,600	794,269	1,295,847	1,396,588	1,132,206	912,225	448,402
Interest Income				3,497	113,361	424,171	386,754	341,431	1,047,630	1,193,618
Other Income				246,131	820,668	543,291	821,530	1,123,827	65,442	59,659
Total Nonoperating Revenues				265,902	1,797,371	2,512,924	3,383,044	3,339,881	3,417,490	3,431,273
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
 Total Enterprise Funds	\$ 21,574,718	\$ 22,047,969	\$ 25,523,804	\$ 39,872,967	\$ 59,668,798	\$ 53,167,335	\$ 59,019,948	\$ 59,739,210	\$ 64,541,761	\$ 67,649,401

(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**

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
						(3)			(4)	
<u>Suburban - Water Fund (1)</u>										
Salaries and Wages	\$ 763,604	\$ 738,156	\$ 733,398	\$ 743,936	\$ 755,025	\$ 801,639	\$ 1,028,004	\$ 1,042,565	\$ 1,037,882	\$ 1,042,754
Benefits, General and Administration	1,156,795	1,073,477	1,056,894	1,007,698	883,400	770,436	1,045,634	1,257,063	1,261,241	1,405,024
Utilities	548,078	487,912	497,447	400,614	418,729	435,422	426,230	420,812	437,253	426,969
Materials and Supplies	277,762	314,711	284,164	314,809	266,886	292,395	288,550	422,730	294,937	371,371
Miscellaneous Services	814,874	1,084,945	1,173,520	1,399,343	1,518,486	1,760,084	2,024,840	2,270,359	2,703,594	2,665,139
Depreciation and Amortization (2)	2,615,095	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
Total	\$ 6,176,208	\$ 6,305,923	\$ 6,262,565	\$ 6,360,762	\$ 6,303,605	\$ 6,568,027	\$ 7,400,688	\$ 8,109,077	\$ 8,503,040	\$ 8,513,436
<u>Suburban - Wastewater Fund (1)</u>										
Salaries and Wages	\$ 290,957	\$ 321,524	\$ 332,227	\$ 290,338	\$ 330,595	\$ 430,271	\$ 440,614	\$ 424,208	\$ 462,145	\$ 551,668
Benefits, General and Administration	335,516	453,987	474,918	370,857	412,512	474,988	564,580	559,911	580,467	714,616
Utilities	185,961	278,440	172,706	167,038	228,184	218,286	204,648	226,197	290,201	374,030
Materials and Supplies	103,089	127,977	151,279	143,800	155,820	187,328	189,418	155,503	264,744	335,419
Miscellaneous Services	4,334,666	4,735,149	5,292,287	5,413,037	6,217,734	6,996,038	7,139,673	6,369,014	5,717,168	6,330,597
Treatment and Transportation	5,483,698	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
Depreciation and Amortization	3,803,507	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
Total	\$ 14,537,394	\$ 16,187,024	\$ 15,933,424	\$ 17,510,622	\$ 16,987,597	\$ 15,014,395	\$ 16,061,636	\$ 15,850,477	\$ 15,348,875	\$ 16,262,970
<u>City Fund (1) *</u>										
Salaries and Wages				\$ 2,407,213	\$ 5,970,232	\$ 5,743,818	\$ 5,608,679	\$ 5,870,195	\$ 6,233,387	\$ 6,391,947
Benefits, General and Administration				787,154	3,732,073	3,746,923	4,417,857	5,155,222	5,563,262	6,694,877
Utilities				609,454	1,900,365	1,939,560	1,863,839	1,903,666	2,040,103	1,960,605
Materials and Supplies				634,843	1,839,101	1,400,206	1,333,225	1,312,551	1,267,835	1,315,169
Miscellaneous Services				651,738	3,147,458	2,358,537	2,190,803	2,620,544	2,096,178	1,784,035
Treatment and Transportation				-	5,502	11,043	11,011	10,096	9,827	9,547
Depreciation and Amortization				2,616,422	5,293,370	5,530,078	5,834,285	5,887,307	5,864,433	5,835,507
Total				\$ 7,706,824	\$ 21,888,101	\$ 20,730,165	\$ 21,259,699	\$ 22,759,581	\$ 23,075,025	\$ 23,991,687
Total Operating Expenses	\$ 20,713,602	\$ 22,492,947	\$ 22,195,989	\$ 23,871,384	\$ 45,179,303	\$ 42,312,587	\$ 44,722,023	\$ 46,719,135	\$ 46,926,940	\$ 48,768,093

* 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**

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Suburban - Water Fund:										
Interest Expense	\$ 1,068,983	\$ 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
Other Expense	95,862	79,714	160,293	106,373	108,430	68,291	157,016	427,991	82,142	98,246
Loss on Disposal of Capital Assets	-	-	-	-	-	-	-	-	-	-
Total	<u>\$ 1,164,845</u>	<u>\$ 1,569,435</u>	<u>\$ 1,591,614</u>	<u>\$ 1,514,780</u>	<u>\$ 1,486,393</u>	<u>\$ 1,338,155</u>	<u>\$ 1,297,581</u>	<u>\$ 1,799,787</u>	<u>\$ 1,658,801</u>	<u>\$ 1,643,274</u>
Suburban - Wastewater Fund:										
Interest Expense	\$ 94,769	\$ 140,538	\$ 118,992	\$ 133,737	\$ 154,205	\$ 151,110	\$ 195,081	\$ 204,418	\$ 197,000	\$ 213,114
Other Expense	581,473	550,126	491,571	561,186	63,029	80,574	65,320	30,104	30,876	44,130
Total	<u>\$ 676,242</u>	<u>\$ 690,664</u>	<u>\$ 610,563</u>	<u>\$ 694,923</u>	<u>\$ 217,234</u>	<u>\$ 231,684</u>	<u>\$ 260,401</u>	<u>\$ 234,522</u>	<u>\$ 227,876</u>	<u>\$ 257,244</u>
City Fund: *										
Interest Expense				\$ 7,101,736	\$ 17,940,740	\$ 18,024,646	\$ 18,280,300	\$ 18,516,650	\$ 18,810,413	\$ 19,386,584
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
Total				<u>\$ 13,182,959</u>	<u>\$ 19,484,415</u>	<u>\$ 20,072,254</u>	<u>\$ 22,306,459</u>	<u>\$ 21,829,274</u>	<u>\$ 22,621,057</u>	<u>\$ 20,646,369</u>
Total Nonoperating Expenses	<u>\$ 1,841,087</u>	<u>\$ 2,260,099</u>	<u>\$ 2,202,177</u>	<u>\$ 2,209,703</u>	<u>\$ 21,188,042</u>	<u>\$ 21,642,093</u>	<u>\$ 23,864,441</u>	<u>\$ 23,863,583</u>	<u>\$ 24,507,734</u>	<u>\$ 22,546,887</u>

* 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**

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Suburban - Water Fund:										
Grant	\$ 1,030,138	\$ 298,300	\$ -	\$ -	\$ -	\$ 421,853	\$ 211,552	\$ 211,892	\$ 212,688	\$ -
Capital Assets Provided by Developers	1,658,537	547,179	599,169	719,019	826,893	1,270,958	3,348,066	6,112,316	1,581,110	1,716,419
Total Water Fund	\$ 2,688,675	\$ 845,479	\$ 599,169	\$ 719,019	\$ 826,893	\$ 1,692,811	\$ 3,559,618	\$ 6,324,208	\$ 1,793,798	\$ 1,716,419
Suburban - Wastewater Fund:										
Grant	\$ -	\$ 1,475,191	\$ 1,040,958	\$ 145,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Assets Provided by Developers	207,949	84,069	5,100,144	9,640	17,344	-	986,079	2,055,943	34,894	15,000
Total Wastewater Fund	\$ 207,949	\$ 1,559,260	\$ 6,141,102	\$ 155,140	\$ 17,344	\$ -	\$ 986,079	\$ 2,055,943	\$ 34,894	\$ 15,000
City Fund:										
Grant				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Assets Provided by Developers				-	-	-	-	-	-	-
Total Allentown Fund				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Enterprise Funds	\$ 2,896,624	\$ 2,404,739	\$ 6,740,271	\$ 874,159	\$ 844,237	\$ 1,692,811	\$ 4,545,697	\$ 8,380,151	\$ 1,828,692	\$ 1,731,419

* 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**

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
SUBURBAN DIVISION										
Charge per Typical Residential Customer:										
Central Lehigh Division:										
Supply Tapping Fee	\$ 435	\$ 435	\$ 605	\$ 605	\$ 605	\$ 605	\$ 605	\$ 605	\$ 605	\$ 605
Distribution Tapping Fee	1,480	1,480	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880
North Whitehall Division:										
Supply Tapping Fee	610	610	575	575	575	575	575	575	575	575
Distribution Tapping Fee	1,480	1,480	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Washington Twp Division:										
Supply Tapping Fee	485	485	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Distribution Tapping Fee	1,480	1,480	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550
Heidelberg Heights Division:										
Supply Tapping Fee	830	830	708	708	708	708	708	708	708	708
Distribution Tapping Fee	1,480	1,480	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Emmaus Consecutive Division:										
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
Upper Milford Central Division:										
Supply Tapping Fee	389	389	235	235	235	235	235	235	235	235
Distribution Tapping Fee	1,480	1,480	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Small System Divisions: (2)										
Supply Tapping Fee	165	165	109	192	192	192	192	192	192	192
Distribution Tapping Fee	1,480	1,480	1,130	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Total Fees collected: (Suburban Divisions, All Customers)										
Supply & Special Tapping Fees	\$ 197,895	\$ 137,646	\$ 215,758	\$ 193,635	\$ 142,032	\$ 212,130	\$ 296,802	\$ 365,395	\$ 184,915	\$ 360,815
Distribution Tapping Fees (1)	15,504	12,500	47,295	27,650	209,839	64,072	129,375	82,010	36,490	57,610
Connection Fees	-	-	-	-	-	-	-	-	-	350
Total Suburban Division	\$ 213,399	\$ 150,146	\$ 263,053	\$ 221,285	\$ 351,871	\$ 276,202	\$ 426,177	\$ 447,405	\$ 221,405	\$ 418,775
CITY DIVISION*										
Supply Tapping Fee				\$ 810	\$ 810	\$ 810	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.
Supply Tapping Fee - Part 2 Capacity Portion (3)							\$0.00016 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 gal.	\$0.02551 per gal.	\$0.02551 per gal.	\$0.02551 per gal.
Total Fees collected: (Allentown Division, All Customers)										
Supply & Special Tapping Fees										\$ 21,462
Capacity Fees				\$ 7,290	\$ 39,649	\$ 128,605	\$ 474,914	\$ 415,990	\$ 968,123	\$ 1,222,030
Distribution Fees							\$ 128	\$ 435	\$ 1,339	\$ 1,390
Total Allentown Division				\$ 7,290	\$ 39,649	\$ 128,605	\$ 475,042	\$ 416,425	\$ 969,462	\$ 1,244,882

* 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 the Authority. Type 2 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**

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Interceptors - Charge per 1000 Gallons:										
Western Lehigh Interceptor	\$ 2,100	\$ 2,100	\$ 2,400	\$ 2,470	\$ 2,650	\$ 2,800	\$ 2,800	\$ 3,560	\$ 3,870	\$ 3,910
Little Lehigh Relief Interceptor	840	840	870	910	940	970	970	990	1,100	1,130
Treatment Capacity	4,710	4,710	4,980	5,350	5,460	5,670	5,670	5,840	6,110	6,140
Total	\$ 7,650	\$ 7,650	\$ 8,250	\$ 8,730	\$ 9,050	\$ 9,440	\$ 9,440	\$ 10,390	\$ 11,080	\$ 11,180
Annual Wastewater Capacity Sales - Interceptor System										
Gallons per Day	113,021	49,879	304,569	165,903	42,007	271,831	101,795	75,476	78,511	231,237
Fees Collected (1)	\$ 644,737	\$ 380,765	\$ 2,451,607	\$ 1,425,532	\$ 187,988	\$ 2,355,746	\$ 1,123,945	\$ 435,017	\$ 490,076	\$ 1,525,203
			(6)	(7)		(8)				(9)
Collection Systems - Charge per EDU (2)										
Upper Milford System:										
Collection Part	\$ 1,475.00	\$ 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
Capacity Part	2,355.00	2,325.00	700.30	712.05	502.90	373.65	373.65	435.00	1,386.50	1,307.03
Heidelberg Heights System:										
Collection Part	349.68	362.08	359.09	395.24	600.75	359.09	359.09	626.55	842.74	889.37
Capacity Part	2,217.12	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
Wynnewood Terrace System:										
Collection Part	2,188.42	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
Capacity Part	1,333.80	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
Sand Spring System:										
Collection Part	496.47	553.28	554.30	566.35	583.22	554.30	554.30	617.88	849.83	878.38
Capacity Part	800.28	824.98	826.63	843.50	867.60	826.63	826.63	920.38	1,441.01	2,358.58
Arcadia West System:										
Collection Part	559.13	577.50	593.25	606.38	622.84	640.50	640.50	661.50	661.50	715.82
Capacity Part	7,231.88	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
Reimbursement Part (3)	22,323.00	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
Western Weisenberg Treatment Plant:										
Capacity Part (4)	7,231.88	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
Annual Wastewater Capacity Sales - Collector Systems										
Gallons per Day (5)	5,013	19,231	2,015	3,273	1,561	1,561	8,251	7,359	10,481	11,150
Fees Collected	\$ 54,818	\$ 26,872	\$ 22,617	\$ 15,336	\$ 10,715	\$ 7,130	\$ 12,977	\$ 10,359	\$ 33,450	\$ 48,546
CITY DIVISION*										
Tapping Fee				\$ 680	\$ 680	\$ 680	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.
Tapping Fee - Part 2 Capacity Portion (10)							\$0.00016 per gal.	\$0.01538 per gal.	\$0.01538 per gal.	\$0.01538 per gal.
Tapping Fee - Part 2 Collection Portion (10)							\$0.00328 per gal.	\$0.00052 per gal.	\$0.00052 per gal.	\$0.00052 per gal.
Total Fees collected: (Allentown Division, All Customers)										
Tapping Fees				\$ 4,760	\$ 18,629	\$ 107,739	\$ 153,591	\$ 106,694	\$ 242,228	\$ 208,161
Capacity Fees							68,249	152,502	148,885	254,054
Collection Fees							4	10	30	31
Total Allentown Division	\$ 4,760	\$ 18,629	\$ 107,739	\$ 221,844	\$ 259,206	\$ 391,143	\$ 462,246			

* 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 reimburseable 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) 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		Common Rates (1)		
Metered Water Usage		1/1/17	1/1/18	1/1/19
Fixed Charges:				
<u>Meter Size</u>				
Quarterly	5/8" & 3/4"	\$ 11.70	\$ 12.78	\$ 12.78
	1"	21.60	21.93	21.93
Monthly	1-1/2"	14.10	16.85	16.85
	2"	21.00	22.95	22.95
	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)				
<u>Quarterly Usage (gals.)</u>		<u>Monthly Usage (gals.)</u>		
First	120,000	First 40,000	2.39	2.43
Next	2,880,000	Next 960,000	2.19	2.21
Next	24,000,000	Next 8,000,000	1.79	1.87
Next	147,000,000	Next 49,000,000	1.51	1.65
Over	174,000,000	Over 58,000,000	1.26	1.53
Public Fire Protection (3)				
O&M per Hydrant (Rate per Month)		\$ 7.87	\$ 8.24	\$ 8.83
Inch-Squared Foot/Year (4)		0.00152	0.00132	0.00138
Private Fire Protection (Charge per month) (5)				
<u>Fire Line Size</u>				
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)		127.40	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**

Effective Date		1/1/17	Rates 1/1/18	1/1/19
Metered Water Usage				
Fixed Charges:				
<u>Meter Size</u>				
Quarterly	5/8"	\$ 26.78	\$ 27.85	\$ 29.27
	3/4"	32.84	34.15	35.89
	1"	44.94	46.73	49.12
	1-1/2"	75.56	78.59	82.59
	2"	112.23	116.72	122.67
	3"	210.11	218.51	229.66
	4"	320.12	332.92	349.90
	6"	625.89	650.92	684.12
	8"	992.54	1,032.24	1,084.89
Monthly	5/8"	18.49	19.23	20.21
	3/4"	20.51	21.33	22.42
	1"	24.66	25.64	26.95
	1-1/2"	34.86	36.25	38.10
	2"	47.08	48.96	51.46
	3"	79.60	82.78	87.00
	4"	116.37	121.03	127.20
	6"	218.19	226.92	238.49
	8"	340.52	354.14	372.20
Volume Charge per 1,000 gallons:		\$ 3.28368	\$ 3.42003	\$ 3.59528
Public Fire Protection				
Each Hydrant (Rate per year)		\$ 328.24	\$ 341.37	\$ 358.77
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)		50.00	50.00	50.00
Service Order Charge (After Hrs)		150.00	150.00	150.00
Lien Administration Fee		127.40	132.15	132.15

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

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
<u>Upper Milford System</u>											
Fixed Charge	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	Per 1000 gals. per Day
Fixed Charge per Quarter (2)	20.00	20.00	20.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	Per Qtr per EDU (3)
Fixed Charge per Quarter (2)	10.00	10.00	10.00	10.50	10.50	10.50	10.50	10.50	10.50	10.50	Per Multi-family Unit
Flow Charge:											
All Flow (2)	4.30	4.30	4.41	4.53	4.53	4.53	4.53	4.53	4.53	4.53	
Up to 220 gpd	-	-	-	-	-	-	-	-	-	-	Per 1000 gals. of Flow
From 220 gpd to daily allocation	-	-	-	-	-	-	-	-	-	-	Per 1000 gals. of Flow
Greater than daily allocation	-	-	-	-	-	-	-	-	-	-	Per 1000 gals. of Flow
Exceptional Strength Charges (1):											
Biological Oxygen Demand (BOD)	0.34	0.38	0.35	0.33	0.36	0.22	0.23	0.26	0.29	0.28	Per Pound
Total Suspended Solids (TSS)	0.31	0.33	0.33	0.30	0.35	0.20	0.21	0.24	0.25	0.25	Per Pound
Total Kjeldahl Nitrogen (TKN)	0.49	0.58	0.51	0.53	0.55	0.29	0.31	0.40	0.37	0.43	Per Pound
Sampling & Testing Charge	170.00	170.00	170.00	170.00	170.00	170.00	170.00	170.00	170.00	170.00	Per Day
<u>Weisenberg Twp. Collector System</u>											
Basic Service Charge	-	-	-	-	-	-	-	-	-	-	Per 1000 gals. of Allocation/Day
Fixed Charge per Quarter (2)	20.00	20.00	20.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	Per Equivalent Dwelling Unit
Fixed Charge per Quarter (2)	10.00	10.00	10.00	10.50	10.50	10.50	10.50	10.50	10.50	10.50	Multi-family Units
Flow Charge (2)	2.94	3.41	4.41	4.53	4.53	4.53	4.53	4.53	4.53	4.53	Per 1000 gals. of Flow
<u>Arcadia West Collector System</u>											
Flow Charge	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
Fixed Charge	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
<u>Heidelberg Heights Collector System</u>											
Monthly Charge	-	-	-	-	-	-	-	-	-	-	Per Residential Unit
Fixed Charge per Quarter (2)	20.00	20.00	20.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	Per Equivalent Dwelling Unit
Fixed Charge per Quarter (2)	10.00	10.00	10.00	10.50	10.50	10.50	10.50	10.50	10.50	10.50	Per Multi-family Unit
Flow Charge (2)	9.08	9.08	9.29	9.53	9.53	9.53	9.53	9.53	9.53	9.53	Per 1000 gals. of Flow
<u>Wynnewood Terrace Collector System</u>											
Monthly Charge	-	-	-	-	-	-	-	-	-	-	Per Residential Unit
Fixed Charge per Quarter (2)	20.00	20.00	20.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	Per Equivalent Dwelling Unit
Fixed Charge per Quarter (2)	10.00	10.00	10.00	10.50	10.50	10.50	10.50	10.50	10.50	10.50	Per Multi-family Unit
Flow Charge (2)	9.08	9.08	9.29	9.53	9.53	9.53	9.53	9.53	9.53	9.53	Per 1000 gals. of Flow
<u>Sand Spring Collector System</u>											
Fixed Charge	-	-	-	-	-	-	-	-	-	-	Per Customer per Month
Fixed Charge per Quarter (2)	20.00	20.00	20.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	Per Equivalent Dwelling Unit
Fixed Charge per Quarter (2)	10.00	10.00	10.00	10.50	10.50	10.50	10.50	10.50	10.50	10.50	Per Multi-family Unit
Flow Charge (2)	6.70	7.55	9.29	9.53	9.53	9.53	9.53	9.53	9.53	9.53	Per 1000 gals. of Flow
<u>Washington Township Collector System (3)</u>											
District 1 - Fixed Charge per Quarter	165.00	165.00	165.00	124.00	124.00	124.00	124.00	124.00	124.00	124.00	Per EDU
District 1 - Flow Chg per 1000 gals.	2.25	2.25	2.25	5.00	5.00	5.00	5.00	5.00	5.00	5.00	All flow in excess of 23,000 gals
District 2 - Fixed Charge per Quarter	65.00	109.00	109.00	124.00	124.00	124.00	124.00	124.00	124.00	124.00	Per EDU
District 2 - Flow Chg	4.80	4.80	4.80	5.00	5.00	5.00	5.00	5.00	5.00	5.00	Per 1000 gals. of Flow
<u>Lynn Township Collector System (4)</u>											
Fixed Charge per Quarter	-	-	-	158.98	158.98	158.98	158.98	158.98	158.98	158.98	Per EDU
Flow Charge	-	-	-	7.20	7.20	7.20	7.20	7.20	7.20	7.20	Per 1000 gals. of Flow
<u>Lowhill Township Collector System (5)</u>											
Fixed Charge per Quarter (2)	-	-	-	-	-	-	21.00	21.00	21.00	21.00	Per Equivalent Dwelling Unit
Fixed Charge per Quarter (2)	-	-	-	-	-	-	10.50	10.50	10.50	10.50	Multi-family Units
Flow Charge (2)	-	-	-	-	-	-	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**

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
<u>Little Lehigh Relief Interceptor - Phase 1</u>											
Flow Charge	\$ 0.1100	\$ 0.1600	\$ 0.1700	\$ 0.1700	\$ 0.1500	\$ 0.1200	\$ 0.1200	\$ 0.1500	\$ 0.2700	\$ 0.2200	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	Per 1000 gals. of Flow
<u>Western Lehigh Interceptor</u>											
Flow Charge (2)	0.8100	0.8000	1.0300	1.0300	0.8700	0.9700	1.2800	1.1300	0.9800	0.8900	Per 1000 gals. of Flow
Exceptional Strength Charges (1):											
BOD	0.3400	0.3800	0.3300	0.3300	0.3600	0.2200	0.2300	0.2600	0.2900	0.2800	Per Pound
TSS	0.3100	0.3300	0.3000	0.3000	0.3500	0.2000	0.2100	0.2400	0.2500	0.2500	Per Pound
TKN	0.4900	0.5800	0.5300	0.5300	0.5500	0.2900	0.3100	0.4000	0.3700	0.4300	Per Pound
Allocation	0.1700	0.2300	0.2500	0.2500	0.2200	0.2100	0.2200	0.2000	0.1800	0.2900	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		
		12/31/17	12/31/18	12/31/19
Metered Water Usage				
Fixed Charges:				
	<u>Meter Size</u>			
Quarterly	5/8"	\$ 9.29	\$ 9.66	\$ 10.16
	3/4"	11.39	11.84	12.45
	1"	15.57	16.19	17.01
	1-1/2"	26.02	27.06	28.44
	2"	38.56	40.11	42.15
	3"	72.02	74.90	78.72
	4"	109.89	114.29	120.12
	6"	214.67	223.26	234.65
	8"	338.75	352.30	370.27
Monthly	5/8"	6.43	6.69	7.03
	3/4"	7.12	7.41	7.79
	1"	8.52	8.86	9.31
	1-1/2"	12.00	12.48	13.12
	2"	16.18	16.83	17.69
	3"	27.42	28.51	29.97
	4"	39.96	41.56	43.68
	6"	74.89	77.88	81.86
	8"	137.38	142.88	150.16
Volume Charge per 1,000 gallons:		\$ 2.369270	\$ 2.464250	\$ 2.590040

**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 Amount
<u>Local Suppliers (1)</u>	
Slatington Borough	\$ 175.56
Lehighton 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
Lehigh County Authority - WTD Welshtown Road	126.00
Northampton Borough Municipal Authority	122.80
Borough of Macungie	122.07
Upper Saucon Township	122.00
Borough of Alburtis	117.09
Lehigh County Authority - City Division (3)	112.77
City of Bethlehem	110.07
Whitehall Township Authority	110.00
Catasauqua Borough	93.30
Lehigh County Authority - Suburban Division (2)	67.98
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**

2019				
	Customer Revenues	% of Total Charges for Services	Customer Water Sales (1000 Gals)	% of Total Water Sales
Sam Adams Pa Brewery (1)	\$ 1,106,926	3.6%	615,203	9.5%
Niagara Bottling	608,849	2.0%	327,509	5.1%
Nestle Waters	482,064	1.6%	255,058	4.0%
Ocean Spray Cranberries	361,792	1.2%	184,357	2.9%
Coca-Cola	274,646	0.9%	137,415	2.1%
Hamilton Tech Partners (2)	210,931	0.7%	100,395	1.6%
Hospital Central Services	197,229	0.6%	50,364	0.8%
Sunopta	147,539	0.5%	69,306	1.1%
Nestle Waters (Perrier)	133,301	0.4%	62,014	1.0%
County of Lehigh	117,684	0.4%	29,750	0.5%
Totals	\$ 3,640,961	11.9%	1,831,371	28.4%
Balance from Other Customers	26,876,401	88.1%	4,610,759	71.6%
Grand Total	\$ 30,517,362	100.0%	6,442,130	100.0%

2010				
	Customer Revenues	% of Total Charges for Services	Customer Water Sales (1000 Gals)	% of Total Water Sales
Sam Adams Pa Brewery (1)	\$ 516,017	8.3%	382,652	15.2%
Nestle Waters	317,426	5.1%	226,334	9.0%
Niagara Bottling	242,727	3.9%	167,119	6.7%
Nestle Waters (Perrier)	123,190	2.0%	74,468	3.0%
Coca-Cola	120,605	1.9%	76,165	3.0%
Kraft Foods	112,555	1.8%	71,295	2.8%
Hamilton Tech Partners (2)	95,273	1.5%	56,539	2.3%
Air Products & Chemicals	65,743	1.1%	37,876	1.5%
Amcor Pet Packaging	67,761	1.1%	37,734	1.5%
CH2MHill (3)	27,133	0.4%	13,850	0.6%
Totals	\$ 1,688,430	27.3%	1,144,032	45.6%
Balance from Other Customers	4,507,289	72.7%	1,366,000	54.4%
Grand Total	\$ 6,195,719	100.0%	2,510,032	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 vs. Sales	Uncollectible Amount
2010	5,290,228	5,290,228	100.00%	-
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%	-

City* - Water Fund:

Year	Water Sales	Water Revenues	% Revenues vs. Sales	Uncollectible Amount
2010				
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

* 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 Revenue Bonds	Net Notes	Net Total O/S Debt	Customers at Year-end	Total Debt per Customer	As a share of Personal Income (1)	Personal Income
2010	\$ 32,140,000	\$ 4,170,815	\$ 36,310,815	19,780	\$ 1,835.73	4.67%	\$ 39,279
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	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 Bonds	Notes	Total	Customers at Year-end	Total Debt per Customer	As a share of Personal Income (2)	Personal Income
2010	\$ -	\$ 416,078	\$ 416,078	1,260	\$ 330.22	0.84%	\$ 39,279
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	Not Available	Not Available

Western Lehigh Interceptor System:

Year	Revenue Bonds	Notes	Total	Customers at Year-end	Total Debt per Customer	As a share of Personal Income (2)	Personal Income
2010	\$ -	\$ 4,345,919	\$ 4,345,919	17,903	\$ 242.75	0.62%	\$ 39,279
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	Not Available	Not Available

Arcadia Sewer System (3):

Year	Revenue Bonds	Notes	Total	Customers at Year-end	Total Debt per Customer	As a share of Personal Income (3)	Personal 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

- (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			Net Total O/S Debt	Customers at Year-end	Total Debt per Customer	As a share of Personal Income (1)	Personal Income
	Tax Exempt	Taxable	Capital Appreciation					
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	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			
2020	2,081,372	1,436,287	542,067	195,887	1,837,406	13,287,981	4,460,845	14,920,155	19,381,000
2021	2,092,818	1,406,328	549,034	184,072	2,286,487	13,318,538	4,928,339	14,908,938	19,837,277
2022	2,147,539	1,351,168	562,081	169,411	2,711,079	13,396,447	5,420,699	14,917,026	20,337,725
2023	2,201,607	1,299,901	575,980	153,143	3,102,078	13,520,571	5,879,665	14,973,615	20,853,280
2024	2,194,031	1,250,434	590,251	136,418	3,456,247	13,699,152	6,240,529	15,086,004	21,326,533
2025-2029	12,705,397	5,050,138	3,179,155	414,171	21,436,377	72,814,581	37,320,929	78,278,890	115,599,819
2030-2034	7,433,967	2,095,431	1,455,035	50,520	24,821,000	84,451,678	33,710,002	86,597,629	120,307,631
2035-2039	2,885,000	1,262,683	58,011	676	34,197,542	98,520,395	37,140,553	99,783,754	136,924,307
2040-2044	3,410,000	747,224	-	-	132,335,000	51,833,188	135,745,000	52,580,412	188,325,412
2045-2047	2,335,000	159,468	-	-	98,990,000	15,219,713	101,325,000	15,379,181	116,704,181
	\$ 39,486,731	\$ 16,059,062	\$ 7,511,614	\$ 1,304,298	\$ 325,173,216	\$ 390,062,244	\$ 372,171,561	\$ 407,425,604	\$ 779,597,165

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

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
REVENUES:										
Operating Revenues (1):										
Customer Charges	\$ 6,196	\$ 6,461	\$ 6,949	\$ 7,517	\$ 8,066	\$ 8,481	\$ 8,677	\$ 8,864	\$ 9,210	\$ 9,780
Other Income (2)	243	293	324	248	43	459	253	314	270	49
Transfer from other Funds (3)	28	128	119	81	110	112	97	91	98	125
Total Revenues	6,467	6,882	7,392	7,846	8,219	9,052	9,027	9,269	9,578	9,954
EXPENSES:										
Operating Expenses (4)	3,561	3,554	3,637	3,749	3,829	4,046	4,798	5,463	5,736	5,982
Nonoperating Expenses (5)	7	7	8	7	9	87	7	302	8	10
Total Expenses	3,568	3,561	3,645	3,756	3,838	4,133	4,805	5,765	5,744	5,992
Total Net Revenues	2,899	3,321	3,747	4,090	4,381	4,919	4,222	3,504	3,834	3,962
Debt Service:										
2001 Note	132	133	-	-	-	-	-	-	-	-
2007 Pennworks Note	94	204	204	204	204	204	204	204	204	204
2001 Bonds	622	694	-	-	-	-	-	-	-	-
2003 Bonds	5	-	-	-	-	-	-	-	-	-
2008 Bond	325	356	355	618	614	517	-	-	-	-
2010 A Bonds	490	649	649	649	649	649	649	649	649	649
2010 AA Bonds	386	471	1,150	1,102	1,105	461	-	-	-	-
2011 Pennvest Note	-	1	11	80	90	84	84	85	87	87
2011 Bond	-	1	129	129	129	129	129	129	129	129
2015 Bond	-	-	-	-	-	436	1,109	1,105	1,107	1,103
2015A Bond	-	-	-	-	-	-	400	513	508	513
2017 Bond	-	-	-	-	-	-	-	185	509	509
Total Debt Service	2,054	2,509	2,498	2,782	2,791	2,480	2,575	2,870	3,193	3,194
Operating Cash Reserves:										
Addition to Cash Reserves (6)	845	812	1,249	1,308	1,590	2,439	1,647	634	641	768
Reserves from Prior-Year (7)	-	5,608	5,512	6,977	5,189	8,367	10,347	11,161	9,633	11,641
Capital Reimbursement (Expenditures)	(2,091)	(908)	216	(3,096)	1,588	(459)	(833)	(2,162)	1,367	(3,608)
OPEB Transfer to Trust Fund	(1,895)	-	-	-	-	-	-	-	-	-
Operating Cash Reserves at Year End (7)	5,608	5,512	6,977	5,189	8,367	10,347	11,161	9,633	11,641	8,801
Annual Debt Service Coverage (8)	1.41	1.32	1.50	1.47	1.57	1.98	1.64	1.22	1.20	1.24

(1) Includes a water rate increase of 3.0% effective 4/1/13. In June 1998, the Authority implemented common rates across the three largest divisions.

(2) Includes interest income on operating reserves, miscellaneous income, federal subsidy on Build America bonds and debt service fund interest earnings applied to interest expense reduction.

(3) Represents other Authority funds share of operating and debt service cost of the Office/Operations Center.

(4) Excludes depreciation and OPEB Expense.

(5) Includes trustee, remarketing and liquidity fees.

(6) Total Net Revenues minus Total Debt Service.

(7) Represents cash and investments in the Consolidated account.

(8) Total Net Revenues divided by Total Debt Service, also known as Operating coverage.

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

Entity	Gross Outstanding Debt 12/31/19	2019 Assessment Valuation of Taxable Property (7)	Ratio of Debt to Assessed Taxable Property
Lehigh County	\$ 160,424,584	\$ 30,452,050,900	0.0053
Borough of Alburtis	-	153,126,300	-
Borough of Emmaus	-	830,740,500	-
Borough of Macungie	1,650,192	232,029,500	0.0071
Heidelberg Township	n/a	274,614,100	-
Lowhill Township	n/a	262,365,100	-
Lower Macungie Township	6,973,000	3,592,531,800	0.0019
Lynn Township	-	363,617,300	-
North Whitehall Township	-	1,499,092,300	-
Salisbury Township	5,365,000	1,319,666,600	0.0041
South Whitehall Township	n/a	2,374,502,500	-
Upper Macungie Township	-	4,197,680,700	-
Upper Milford Township	-	780,697,300	-
Washington Township	-	482,469,300	-
Weisenberg Township	n/a	754,010,400	-
East Penn School District (1)	38,118,000	5,589,125,400	0.0068
Parkland School District (2)	n/a	8,350,455,400	-
Northern Lehigh School District (3)	27,235,956	656,407,700	0.0415
Northwestern Lehigh School District (4)	48,380,000	1,654,606,900	0.0292
Salisbury School District (5)	36,562,000	1,320,424,100	0.0277
Northampton School District (6)	124,230,000	1,166,113,300	0.1065

- (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	2019			2010		
		Employees	% to Total (A)	Rank	Employees	% to Total (A)	Rank
Lehigh Valley Hospital & Health Network	Health Services	17,626	5.1%	1	9,723	2.8%	1
St. Luke's Hospital & Health Network	Health Services	13,578	4.0%	2			
Giant Food Stores	Grocery Store	2,449	0.7%	3	2,339	0.7%	3
Mack Trucks	Vehicle Manufacturer	2,400	0.7%	4	1,150	0.3%	9
Allentown School District	Education	2,200	0.6%	5			
Air Products & Chemicals	Industrial Gases	2,218	0.6%	6	3,417	1.0%	2
Sodexo / Wood Company	Food Service	2,168	0.6%	7	2,225	0.6%	5
County of Lehigh	Government	1,956	0.6%	8			
Amazon.com	E-commerce Warehouse	1,863	0.5%	9			
Wegmans Food Markets	Grocery Store	1,803	0.5%	10			
Guardian Life	Insurance Services	1,574	0.5%	11			
Weis Markets	Grocery Store	1,400	0.4%	12	1,145	0.3%	10
HCR Manorcare	Health Services	1,298	0.4%	13			
Kidspeace	Mental Health	1,190	0.3%	14	1,250	0.4%	7
Lutron Electronics Company	Electronic Manufacturer	1,100	0.3%	15			
Walmart	Department Store	1,000	0.3%	16	1,765	0.5%	6
Lehigh Carbon Community College	Higher Education	930	0.3%	17	1,142	0.3%	11
PPL	Electricity	929	0.3%	18	2,332	0.7%	4
City of Allentown	Local Government	808	0.2%	19			
The Hartford	Insurance Services				1,200	0.3%	8
Walgreens	Pharmacy/Other Products				1,128	0.3%	12

(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		Household (Median)	Income \$		Poverty %		Education %	
	2019 Persons	Density (Sq. Mile)		Family (Median)	Per Capita Income	Persons Below	Families Below	High School Graduate	College Graduate
Pennsylvania	12,801,989	284	\$ 59,445	\$ 88,717	\$ 32,889	12.2	8.5	90.2	30.8
Lehigh County	369,318	1,013	62,178	74,926	32,252	12.0	8.7	88.6	29.4
Northampton County	305,285	805	67,565	81,212	34,017	10.2	7.2	90.6	29.2
Alburtis Borough	3,000	3,000	79,184	81,389	30,284	4.9	5.2	93.4	33.4
Allentown City	124,549	6,727	40,490	55,236	20,235	26.2	22.1	78.6	15.3
Emmaus Borough	11,467	3,874	58,712	71,818	32,236	6.8	3.5	92.0	30.2
Heidelberg Township	3,500	142	74,063	86,663	32,114	3.0	14.0	93.3	27.2
Lower Macungie Township	32,690	1,428	89,029	113,752	43,972	3.1	3.7	94.4	47.8
Lower Milford Township	3,906	198	90,190	116,153	41,929	1.9	1.3	94.8	36.2
Lowhill Township	2,168	134	99,567	125,274	46,528	2.5	1.7	94.7	16.3
Lynn Township	4,347	105	81,063	92,948	36,134	6.1	4.0	92.7	32.6
Macungie Borough	3,198	3,233	60,853	75,571	34,217	5.2	5.1	92.5	32.9
Moore Township	9,434	248	72,933	88,265	35,042	5.8	2.7	92.5	20.7
North Whitehall Township	16,379	584	78,562	97,799	39,445	4.4	3.0	93.0	33.8
Salisbury Township	13,948	1,209	78,471	97,888	41,850	9.3	4.2	92.6	33.4
South Whitehall Township	19,955	1,122	79,169	108,613	40,725	3.6	3.1	94.4	43.7
Upper Macungie Township	25,201	941	96,030	122,092	46,235	2.6	1.8	94.1	48.6
Upper Milford Township	7,950	422	84,483	107,727	45,203	3.7	3.3	95.7	37.8
Washington Township	6,798	281	70,293	79,798	32,854	10.7	5.9	92.6	23.4
Weisenberg Township	5,276	184	97,339	131,255	41,778	2.3	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 Census	2010 Census	2019	Change	
				No.	%
Lehigh County	312,090	349,497	371,118	21,621	6.9%
Northampton County	267,066	297,735	311,068	13,333	5.0%
Allentown	106,632	118,032	121,429	3,397	3.2%
Borough of Alburtis	2,117	2,361	3,000	639	30.2%
Borough of Emmaus	11,313	11,211	11,355	144	1.3%
Heidelberg Township	3,279	3,416	3,552	136	4.1%
Lower Macungie Township	19,220	30,633	32,690	2,057	10.7%
Lower Milford Township	3,617	3,775	3,906	131	3.6%
Lowhill Township	1,869	2,173	2,262	89	4.8%
Lynn Township	3,849	4,229	4,347	118	3.1%
Borough of Macungie	3,039	3,074	3,198	124	4.1%
Moore Township	8,673	9,198	9,434	236	2.7%
North Whitehall Township	14,731	15,703	16,379	676	4.6%
Salisbury Township	13,498	13,505	13,948	443	3.3%
South Whitehall Township	18,028	19,180	19,955	775	4.3%
Upper Macungie Township	13,895	20,063	25,201	5,138	37.0%
Upper Milford Township	6,889	7,292	7,950	658	9.6%
Washington Township	6,588	6,624	6,798	174	2.6%
Weisenberg Township	4,144	4,923	5,276	353	8.5%

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 - 2019**

Year	Lehigh County	Change (1)	(2) ABE - MSA	Change	Pennsylvania	Change (1)	United 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%

(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
2019 New Industrial / Commercial / Institutional Customers - Suburban Division**

Name	Classification	Approximate Size in Sq. Ft.	(1) Est. Water Usage in gallons per day
<u>Customer Additions in 2019:</u>			
750 North Krocks Road - Starbucks	Coffee Shop	2,400	29,600
3261 PA RTE 100	Office Building	7,523	N/A
3430 Daylily Drive - Clubhouse	Clubhouse	7,500	100
6975 Ambassador Drive - Iron Run IP Lot 5	Warehouse	13,400	5,000
7042 Snowdrift Road	Equipment Service Facility	20,967	150
7370 Hamilton Blvd (Seitz)	Winery/Pest Control	1,400	N/A
Ciocca Import Inc	Auto Dealership	38,088	1,970
Lehigh Hills, Lot 2	Retail Stores	19,700	500
Mary Ann's Plaza	Restaurant / Retail Stores	18,130	11,400
Park 100-Industrial Blvd-7352 Industrial Drive	Warehouse	730,080	9,668
Spring Creek Properties Settlement, Lot 1	Office Building	40,000	5,700
KRE Spring View (Bortz Tract)	Commercial Strip Mall	22,976	11,400
 <u>Plans Approved or under Review:</u>			
749 PA RT 100	Warehouse	160,000	1,200
3262 Schoeneck Road	Warehouse	200,000	5,250
6161 Hamilton Boulevard - Jandl Commercial Park North	Office/Retail/Restaurant	73,000	4,600
5329-5347-5357 Hamilton Blvd	Retail Stores/Fast Food	N/A	1,300
5354 Hamilton Blvd	Medical Office	N/A	N/A
5374 Hamilton Blvd -Taco Bell	Fast Food	N/A	1,328
5392 Hamilton Blvd	Commercial/Office Space	N/A	300
5420 Crackersport Road	Commercial/Office Space	N/A	1,150
6950 Ambassador Drive - Millipore Sigma	Warehouse	21,100	2,156
7368-7386 Alburis Road	Mosque	350,324	720
8323 & 8449 Congdon Hill Road	Warehouse	147,650	1,181
8615 Congdon Hill Road (Lot 8)	Warehouse	917,760	5,000
8783 Congdon Hill Road (Lot 7)	Warehouse	271,080	1,400
Above & Beyond	Warehouse	1,088,000	15,500
Air Products & Chemicals	Personal Care Facility	51,112	100,000
ATAS International	Commercial/Office Space/R&D	649,000	1,560
Beit Simcha	Industrial - Manufacturing	474,800	1,980
Cedar Brook Industrial Park	Messianic Fellowship	14,200	N/A
City Development (Hamilton Blvd. & Trexlertown Road)	Industrial	N/A	N/A
Golden Key Travel Center	Strip Mall / Shopping Center	5,400	2,000
Grandview Crossings (Weis)	Fueling Station/Convenience Store	10,000	64,442
Lehigh Valley South, Lots 1 & 2	Shopping Center	75,000	2,600
Lehigh Valley West IP, Lots 5-11	Office Buildings	131,060	7,000
Lower Macungie Township Community Center Expansion	Warehouse	384,500	4,540
Macungie Crossings (Hamilton & Grange Road)	Community Center	53,405	10,000
Macungie Professional Center	Retail Stores	146,470	400 (Bank)
Mill Creek Hotel	Office Building / Bank	11,050	17,000
MLP - 1142 Mill Creek Road	Hotel/Restaurant	142,655	N/A
North Valley Trade Center	Dentist Office	12,000	6,000
Park 100-Industrial Blvd-7356 Industrial Drive	Warehouses	1,270,000	1,000,000
Parkland Elementary School	Industrial - Manufacturing	811,200	1,875
Penske Truck Leasing	Elementary School	59,075	1,500
Route 100/222 Bypass Commercial Development	Truck Garage/Rentals	17,300	N/A
Shepherd's Corner	Retail Stores	23,400	N/A
Shoppes at Trexler Plaza	Retail Stores	16,460	3,268
Towneplace Suites by Marriott	Gas Station/Car Wash/Retail	2,311	8,190
Trexler Business Center, Lot 1	Hotel	64,000	2,665
Trexler Business Center, Lot 2	Retail Stores//Movie Theatre	116,400	200
Trexler Business Center, Lot 3	Office Building	70,000	37,200
Trexler Senior Living Center	Bank	5,642	N/A
U-Haul of Lower Macungie	Senior Living Center / Retail Stores	132,000	111
	Rental	87,044	

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
2019 New Industrial / Commercial / Institutional Customers - City Division**

Name	Classification	Approximate Size in Sq. Ft.	(1) Est. Water Usage in gallons per day
<u>Customer Additions in 2019:</u>			
107-111 W Hamilton St	Restaurant/Office/Retail	1,500	1,925
26-30 S 12th St	Laundromat	7,705	10,745
Five City Center	Office	289,000	10,147
LANTA - 1118-1146 Cumberland St	Bus Wash	3775	570
Lehigh Valley Hospital Inc - 1627 Chew St	Hospital	300,000	9,500
<u>Plans Approved or under Review 2019:</u>			
120 W Union St	Garage/Office/Storage	4,340	670
615 Waterfront Dr	Mixed use - unknown	159,000	N/A
630 Waterfront Dr	Mixed use - unknown	150,000	N/A
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
1041-1014 E Cedar Classroom Expansion	School	4,000	400
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

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA
2019 MAJOR INDUSTRIAL AND COMMERCIAL COMPLEXES
WITHIN THE LCA SUBURBAN AND CITY SERVICE AREAS**

Name	Total Acreage	Status
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
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
ALLENTOWN, PENNSYLVANIA
WATER & WASTEWATER SERVICE AREAS
HOUSING GROWTH TRENDS**

Single Family											Mobile Homes									
Municipality	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Alburtis	-	-	-	27	37	20	23	1	1	1	-	-	-	-	-	-	-	-	-	-
Allentown City	-	-	-	1	8	2	12	12	12	18	-	-	-	-	-	-	-	-	-	-
Emmaus	2	1	-	-	2	3	3	5	2	13	-	-	-	-	1	-	-	-	-	-
Heidelberg	-	-	-	3	1	5	2	4	8	11	-	-	-	-	1	-	-	2	1	-
Lower Macungie	39	1	-	-	31	17	9	26	22	19	-	29	-	-	6	5	2	2	8	3
Lowhill	-	1	3	3	8	4	4	15	9	4	-	-	-	-	-	-	-	-	-	-
Lynn	-	-	-	4	13	6	6	9	6	12	-	-	-	-	1	-	-	-	1	-
Macungie	1	-	-	-	4	2	5	3	2	1	-	-	-	-	-	-	-	-	-	-
North Whitehall	16	2	-	1	13	27	29	11	13	3	-	-	-	-	2	1	4	9	-	-
Salisbury	1	-	1	-	5	3	10	2	6	4	-	-	-	-	-	-	-	-	-	-
South Whitehall	-	7	-	2	17	20	10	23	48	93	-	-	-	-	-	6	-	-	-	-
Upper Macungie	251	236	-	-	160	123	149	163	132	108	-	-	-	-	4	-	6	7	6	5
Upper Milford	1	1	13	-	14	7	11	73	45	73	-	-	-	-	-	1	-	-	-	-
Washington	2	-	1	-	2	3	4	2	7	8	-	-	-	-	3	-	2	-	-	4
Weisenberg	2	1	3	7	11	13	9	17	11	4	-	-	-	-	2	-	-	1	-	-
Total	315	250	21	48	326	255	286	366	324	372	-	29	-	-	20	13	14	21	16	12

Multi-Family (1)											Total									
Municipality	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Alburtis	4	-	-	56	-	-	-	-	-	-	-	-	83	37	37	20	23	1	1	1
Allentown City	-	-	-	-	20	170	-	128	-	-	-	-	1	28	28	172	12	140	12	18
Emmaus	-	-	-	-	-	-	-	-	-	-	2	1	-	-	3	3	3	5	2	13
Heidelberg	-	-	-	-	-	-	-	-	-	-	-	-	-	3	2	5	2	6	9	11
Lower Macungie	-	-	-	-	-	-	-	110	138	-	39	30	-	-	37	22	11	138	168	22
Lowhill	-	-	-	-	-	-	-	-	-	-	-	1	3	3	8	4	4	15	9	4
Lynn	-	-	-	-	-	-	-	-	-	-	-	-	-	4	14	6	6	9	7	12
Macungie	-	-	1	-	-	-	-	-	-	-	1	-	1	-	4	2	5	3	2	1
North Whitehall	-	-	-	-	-	-	-	-	-	-	16	2	-	1	15	28	33	20	13	3
Salisbury	-	-	10	-	-	40	-	-	-	-	1	-	11	-	5	43	10	2	6	4
South Whitehall	-	-	-	14	-	5	-	-	450	1350	-	7	-	16	17	31	10	23	498	1443
Upper Macungie	202	376	196	-	-	3	240	168	-	-	453	612	196	-	164	126	395	338	138	113
Upper Milford	-	-	-	-	-	-	-	-	-	-	1	1	13	-	14	8	11	73	45	73
Washington	-	-	18	-	-	-	-	-	-	-	2	-	19	-	5	3	6	2	7	12
Weisenberg	-	-	-	-	-	-	-	-	-	-	2	1	3	7	13	13	9	18	11	4
Total	206	376	225	70	20	218	240	406	588	1,350	517	655	330	99	366	486	540	793	928	1,734

(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 County</u>	<u>Pennsylvania</u>	<u>United States</u>
2010	9.4%	8.7%	9.6%
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%

Source: US Bureau of Labor Statistics

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

	2009	2010	2011	2012	2013
Lehigh County					
Total Personal Income (\$000)	\$ 13,586,500	\$ 13,756,104.00	\$ 14,431,990.00	\$ 15,404,995	\$ 15,587,384
Population (000)	343	349	353	355	355
Per Capita Personal Income	\$ 39,551	\$ 39,279	\$ 40,890	\$ 43,364	\$ 43,897
Pennsylvania					
Total Personal Income (\$000)	\$ 506,397,440	\$ 516,390,019	\$ 538,908,724	\$ 575,424,657	\$ 594,915,004
Population (000)	12,605	12,702	12,743	12,763	12,781
Per Capita Personal Income	\$ 40,157	\$ 40,604	\$ 42,291	\$ 45,083	\$ 46,202
United States					
Total Personal Income (\$000)	\$ 12,168,161,000	\$ 12,353,577,000	\$ 12,949,905,000	\$ 13,404,868,963	\$ 14,166,900,000
Population (000)	307,006	308,745	31,600	315,091	316,497
Per Capita Personal Income	\$ 39,635	\$ 39,365	\$ 41,560	\$ 43,735	\$ 44,543
	2014	2015	2016	2017	2018
Lehigh County					
Total Personal Income (\$000)	\$ 16,177,642	\$ 17,145,783	\$ 17,734,075	\$ 18,800,570	\$ 19,735,321
Population (000)	358	360	366	368	363
Per Capita Personal Income	\$ 45,211	\$ 47,537	\$ 48,834	\$ 51,298	\$ 53,614
Pennsylvania					
Total Personal Income (\$000)	\$ 618,858,628	\$ 649,909,812	\$ 676,880,269	\$ 682,533,744	\$ 720,073,441
Population (000)	12,792	12,802	12,805	12,807	12,791
Per Capita Personal Income	\$ 48,378	\$ 49,786	\$ 52,096	\$ 53,300	\$ 56,225
United States					
Total Personal Income (\$000)	\$ 14,955,700,000	\$ 15,737,700,000	\$ 15,928,700,000	\$ 17,164,600,000	\$ 18,205,500,000
Population (000)	320,222	325,200	325,719	327,164	328,240
Per Capita Personal Income	\$ 40,962	\$ 48,112	\$ 50,398	\$ 53,712	\$ 54,501

Note: 2019 information is not available - 2018 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 Group	2001	2010	Estimate		
				2020	2030	2040
Lehigh Valley	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
	Total	306,611	335,611	371,405	396,869	436,892
Pennsylvania		9,363,040	7,137,155	NA	NA	NA
United States		212,577,000	233,658,000	NA	NA	NA

Note: NA means not available.

Source: Table 29, Lehigh Valley Profile and Trends, 2013 Edition, Lehigh Valley Planning Commission.

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	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
SUBURBAN DIVISION										
Western Lehigh Service Area (1):										
Sales:										
Large Industrial	382,652	406,184	448,848	575,145	699,377	726,196	732,464	647,574	622,634	665,161
Other Industrial	712,796	667,916	793,177	920,043	1,067,360	1,181,947	1,158,204	1,127,906	1,121,571	1,086,340
Commercial/Sm. Industrial/Institutional/Other	307,772	311,708	324,146	336,593	350,800	383,238	452,939	442,098	466,086	473,801
Residential	995,643	973,927	960,988	940,112	945,500	954,476	1,072,729	960,662	1,041,458	1,060,341
Total Sales	2,398,863	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
Customers:										
Large Industrial	1	1	1	1	1	1	1	1	1	1
Other Industrial	7	7	7	8	8	8	8	8	8	8
Commercial/Sm. Industrial/Institutional	594	601	606	571	575	591	622	642	655	662
Residential	17,173	17,539	17,718	17,977	18,160	18,338	18,828	19,143	20,042	20,232
Total Customers	17,775	18,148	18,332	18,557	18,744	18,938	19,459	19,794	20,706	20,903
Northern Lehigh Service Area (2):										
Sales:										
Commercial/Sm. Industrial/Institutional	15,283	16,363	19,649	15,597	13,295	12,119	13,021	12,009	12,961	15,056
Residential	92,143	92,716	91,110	87,898	86,939	86,239	88,078	83,774	84,353	82,771
Total Sales	107,426	109,079	110,759	103,495	100,234	98,358	101,099	95,783	97,314	97,827
Customers:										
Commercial/Sm. Industrial/Institutional	68	68	69	69	69	69	69	70	70	71
Residential	1,870	1,882	1,882	1,873	1,878	1,886	1,893	1,894	1,894	1,901
Total Customers	1,938	1,950	1,951	1,942	1,947	1,955	1,962	1,964	1,964	1,972
Northampton County Service Area (3):										
Sales:										
Residential	3,744	3,575	3,478	3,352	3,438	3,286	3,627	3,459	3,498	3,383
Customers:										
Residential	67	67	67	67	67	67	67	67	67	67
CITY DIVISION (4)										
Sales:										
Other Industrial				46,193	106,851	113,671	113,470	107,331	126,736	128,113
Commercial/Sm. Industrial/Institutional/Other				326,015	769,692	816,700	785,917	769,492	784,930	789,274
Residential				1,026,687	2,121,604	2,147,484	2,160,603	2,158,560	2,152,837	2,137,892
Total Sales	-	-	-	1,398,895	2,998,147	3,077,855	3,059,990	3,035,383	3,064,503	3,055,279
Customers:										
Other Industrial				547	419	417	419	419	419	419
Commercial/Sm. Industrial/Institutional				4,637	4,747	4,743	4,728	4,731	4,720	4,724
Residential				41,464	41,615	41,588	41,615	41,620	41,198	41,274
Total Customers	-	-	-	46,648	46,781	46,748	46,762	46,770	46,337	46,417
ALL SERVICE AREAS:										
Sales:										
Large Industrial	382,652	406,184	448,848	575,145	699,377	726,196	732,464	647,574	622,634	665,161
Other Industrial	712,796	667,916	793,177	966,236	1,174,211	1,295,618	1,271,674	1,235,237	1,248,307	1,214,453
Commercial/Sm. Industrial/Institutional	323,055	328,071	343,795	678,205	1,133,787	1,212,057	1,251,877	1,223,599	1,263,977	1,278,131
Residential	1,091,530	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
Total Sales	2,510,033	2,472,389	2,641,396	4,277,635	6,164,856	6,425,356	6,581,052	6,312,865	6,417,064	6,442,132
Customers:										
Large Industrial	1	1	1	1	1	1	1	1	1	1
Other Industrial	6	7	7	555	427	425	427	427	427	427
Commercial/Sm. Industrial/Institutional	661	669	675	5,277	5,391	5,403	5,419	5,443	5,445	5,457
Residential	19,110	19,488	19,667	61,381	61,720	61,879	62,403	62,724	63,201	63,474
Total Customers	19,778	20,165	20,350	67,214	67,539	67,708	68,250	68,595	69,074	69,359

(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	
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2030
SUBURBAN DIVISION												
Central Lehigh Division:												
Average Daily Demand (Gallons)	6,748,000	6,749,000	7,108,000	8,000,000	8,760,000	9,085,000	9,329,000	9,284,500	9,557,914	9,736,210	9,650,000	12,100,000
Maximum Daily Demand (Gallons)	10,958,000	11,502,000	10,368,000	11,129,000	10,935,000	10,819,000	12,273,000	11,830,000	12,101,447	11,754,797	14,920,000	18,790,000
Estimated Safe Yield of Supplies (GPD)	12,760,000 (1)	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)*	23,260,000 (1)*
Surplus/(Deficit) (GPD)	1,802,000	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	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												
Washington Township Division:												
Average Daily Demand (Gallons)	55,000	53,000	59,000	71,000	63,000	44,000	48,000	48,000	48,403	68,413	60,158	62,938
Maximum Daily Demand (Gallons)	80,000	70,000	241,000	98,000	89,000	92,000	89,000	64,000	74,400	85,000	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)	134,000	144,000	(27,000)	116,000	125,000	122,000	125,000	150,000	139,600	129,000	125,263	119,593
* Maximum day purchase from Slatington (1,500,000 gal. over 7 days), by agreement												
North Whitehall Township Division:												
Average Daily Demand (Gallons)	183,000	241,000	256,000	253,000	259,000	346,000	469,000	356,000	406,121	461,086	285,752	321,272
Maximum Daily Demand (Gallons)	420,000	374,000	439,000	413,000	364,000	520,000	835,000	454,000	538,443	735,015	442,916	497,972
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)	283,000	329,000	264,000	290,000	339,000	183,000	(132,000)	249,000	164,557	(32,015)	260,084	205,028
* Includes 390,000 gpd maximum purchase from NBMA over 30 days by agreement												
Mill Creek Estates Division:												
Average Daily Demand (Gallons)	6,000	5,000	5,000	5,000	6,000	5,000	5,200	5,200	5,191	4,916	9,000	10,000
Maximum Daily Demand (Gallons)	12,000	10,000	18,000	15,000	26,000	12,000	10,000	10,000	10,007	8,680	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)	39,800	41,800	33,800	36,800	25,800	39,800	41,800	41,800	41,793	43,120	36,800	36,800
Heidelberg Heights Division:												
Average Daily Demand (Gallons)	39,000	38,000	40,000	25,000	35,000	42,000	33,000	29,800	31,862	31,332	37,000	37,000
Maximum Daily Demand (Gallons)	105,000	68,000	59,000	68,000	84,600	70,000	73,000	43,000	62,883	64,723	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)	24,000	61,000	70,000	61,000	44,400	59,000	56,000	86,000	66,117	64,277	65,000	65,000
Pine Lakes of Lynn Division:												
Average Daily Demand (Gallons)	9,000	9,000	11,000	8,000	7,000	9,000	7,300	7,200	7,187	7,353	11,000	11,000
Maximum Daily Demand (Gallons)	18,000	24,000	21,000	24,000	11,000	15,000	12,000	1,300	14,583	11,121	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)	54,000	48,000	51,000	48,000	61,000	57,000	60,000	70,700	57,417	60,879	53,000	53,000
Arcadia West Division:												
Average Daily Demand (Gallons)	12,000	13,000	14,000	17,000	18,000	22,000	22,000	23,000	27,374	25,705	48,500	48,500
Maximum Daily Demand (Gallons)	25,000	28,000	33,000	38,000	73,000	54,000	85,000	49,000	58,386	46,133	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)	239,000	236,000	231,000	226,000	191,000	210,000	179,000	215,000	205,614	217,867	70,000	70,000
Beverly Hills Division:												
Average Daily Demand (Gallons)	13,000	10,000	11,000	8,000	6,000	6,000	6,800	6,000	6,089	8,919	12,000	12,000
Maximum Daily Demand (Gallons)	21,000	22,000	21,000	17,000	11,000	14,000	14,000	13,000	14,477	15,330	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)	12,000	11,000	12,000	16,000	22,000	19,000	19,000	20,000	18,523	17,670	15,000	15,000

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

Customer Class	ACTUAL										PROJECTED	
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2030
Clearview Farm Estates Division:												
Average Daily Demand (Gallons)	12,000	10,000	10,000	10,000	10,000	10,000	10,000	8,800	9,147	9,857	13,000	13,000
Maximum Daily Demand (Gallons)	26,000	23,000	21,000	20,000	11,000	19,000	29,000	15,000	17,400	21,550	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)	9,000	12,000	14,000	15,000	24,000	16,000	6,000	20,000	17,600	13,450	10,000	10,000
Emmaus Consecutive Division:												
Average Daily Demand (Gallons)	69,000	67,000	65,000	65,000	63,000	63,000	63,000	64,000	59,871	61,824	64,000	64,000
Maximum Daily Demand (Gallons)	83,000	82,000	75,000	72,000	67,000	67,000	71,000	68,000	64,541	67,785	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
Buss Acres Division:												
Average Daily Demand (Gallons)	23,000	20,000	19,000	18,000	17,000	23,000	28,000	24,000	21,401	19,289	21,000	21,000
Maximum Daily Demand (Gallons)	42,000	38,000	27,000	31,000	27,000	53,000	51,000	16,000	35,525	32,900	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)	76,000	80,000	91,000	87,000	91,000	65,000	67,000	102,000	82,475	85,100	88,000	88,000
Madison Park Division:												
Average Daily Demand (Gallons)	16,000 *	15,000	14,000	14,000	13,000	13,000	13,000	13,000	13,308	14,602	27,000	27,000
Maximum Daily Demand (Gallons)	39,000 **	27,000	21,000	24,000	25,000	30,000	24,000	24,000	18,300	20,533	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)	98,000	110,000	116,000	113,000	112,000	107,000	113,000	113,000	118,700	116,467	96,000	96,000
* Based on partial year. The Authority acquired this system in 2010.												
** Estimated												
CITY DIVISION ***												
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	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	32,000,000	36,000,000
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
Surplus/(Deficit) (GPD)				41,543,000	45,711,400	44,879,100	45,703,900	43,864,100	41,243,800	41,495,200	39,000,000	35,000,000

*** 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	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Upper Milford:										
Residential Customers	465	501	739	762	773	781	790	819	849	916
Commercial/Industrial Customers	31	31	42	42	42	49	49	49	48	47
Total Customers	496	532	781	804	815	830	839	868	897	963
Billable Flow (1)	39,890	37,608	47,804	51,626	56,443	58,976	52,959	57,509	58,436	58,896
Weisenberg Township: (4)										
Residential Customers	146	146	146	146	146	149	149	149	149	149
Commercial/Industrial Customers	14	14	14	14	15	3	3	3	3	3
Total Customers	160	160	160	160	161	152	152	152	152	152
Billable Flow (1)	13,537	12,507	11,227	13,939	14,818	12,196	12,285	10,833	10,975	11,454
Heidelberg Heights: (2)										
Residential Customers	145	145	145	145	145	145	145	145	145	145
Billable Flow	8,338	7,592	7,203	7,663	6,872	6,112	6,752	6,544	6,638	6,613
Wynnewood Terrace: (2)										
Residential Customers	217	217	217	217	217	219	219	222	222	222
Commercial/Industrial Customers	2	2	2	2	2	2	2	2	2	2
Total Customers	219	219	219	219	219	221	221	224	224	224
Billable Flow (1)	14,640	14,331	13,795	13,854	13,211	13,249	13,386	13,087	12,785	12,960
Sand Spring: (3)										
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)	8,784	8,463	8,463	8,277	8,019	8,080	8,143	8,954	8,196	8,201
Washington Township: (5)										
Residential Customers	590	596	597	599	601	601	602	602	602	602
Commercial/Industrial Customers	24	22	22	22	22	23	23	23	23	23
Total Customers	614	618	619	621	623	624	625	625	625	625
Billable Flow (1)	26,787	26,394	27,450	26,397	25,940	25,963	25,327	24,587	23,642	23,775
Lynn Township: (6)										
Residential Customers	-	-	403	403	406	406	410	411	411	411
Commercial/Industrial Customers	-	-	21	21	21	21	21	21	21	21
Total Customers	-	-	424	424	427	427	431	432	432	432
Billable Flow (1)	-	-	786	1,444	1,746	1,406	1,150	1,223	1,199	1,116
Lowhill Township: (7)										
Residential Customers							43	43	43	43
Billable Flow							1,789	2,114	2,335	2,220
Total Collector Systems:										
Residential Customers	1,811	1,853	2,495	2,520	2,536	2,549	2,606	2,639	2,669	2,736
Commercial/Industrial Customers	80	78	110	110	111	107	107	107	106	105
Total Customers	1,891	1,931	2,605	2,630	2,647	2,656	2,713	2,746	2,775	2,841
Billable Flow (1)	111,976	106,895	116,728	123,200	127,049	125,982	121,791	124,851	124,206	125,235

- (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**

	Year	System Flow (1)	Billable Flow (2)	(3) % of Flow Unbilled
Actual	2010	7.62	5.90	22.6%
	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%
Projected (A)	2020	9.2		
	2025	10.78		
	2030	11		

(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									
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Alburtis	47,150	45,202	47,928	41,777	51,354	51,158	54,195	52,490	50,308	48,755
Lowhill	3,156	2,440	3,167	2,776	2,644	2,677	2,544	2,144	2,345	2,284
Lower Macungie	644,316	650,770	620,044	516,771	533,139	527,857	494,538	518,599	634,716	545,880
Macungie	69,496	80,218	73,540	73,737	76,675	68,271	70,642	61,212	69,421	66,273
Salisbury	155,067	158,848	136,429	150,181	136,491	144,735	143,806	140,072	148,696	156,206
South Whitehall	459,031	554,389	621,811	607,613	491,939	407,528	384,152	292,224	283,239	247,576
Upper Macungie	1,211,541	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
Upper Milford	41,332	39,534	54,251	54,840	60,363	61,345	55,120	60,916	60,910	45,499
Weisenberg	11,545	10,015	11,277	15,741	11,624	11,869	12,396	10,649	13,377	11,154
Total	2,642,634	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

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

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

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Suburban Division Water System:										
Water Sales (MGD)	6.88	6.76	7.23	7.89	8.68	9.17	9.62	8.98	8.79	8.89
Average Daily Demand (MGD)	7.26	7.23	7.62	8.50	9.27	9.68	10.04	9.88	10.07	10.35
Peak Day Demand (MGD)	11.83	12.30	11.38	11.97	11.75	11.78	13.60	12.65	13.02	12.88
Safe Supply Capacity (MGD) (4)	14.69	16.69	16.69	17.70	17.70	17.70	17.70	17.70	17.70	17.70
System Storage Capacity (MG)	11.09	11.09	11.15	11.15	11.15	11.15	11.15	11.17	11.17	11.17
Miles of Water Mains	311.27	312.08	316.60	318.35	319.92	322.52	329.67	341.78	343.00	341.80
Suburban Division Wastewater System:										
Average Daily flow to Kline's Island (1)	7.11	8.73	7.40	7.77	8.92	7.88	7.98	8.80	11.19	10.92
Treatment Capacity (2)	10.68	10.68	10.68	10.78	10.78	10.78	10.78	10.78	10.78	10.78
Wastewater Allocation Sold (gallons per day)	113,244	49,879	104,569	165,903	47,609	273,392	124,800	75,476	78,511	231,237
Treatment Plant Design Capacity in Collector Systems (GPD) (3)	155,000	155,000	315,000	315,000	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	23.06	35.86	36.62	35.86	35.97	40.16	40.51	40.76	39.19
Total Miles of Wastewater System Pipe	54.23	54.23	67.03	67.79	67.03	67.14	71.33	71.68	71.93	70.36
City Division Water System: *										
Water Sales (MGD)				9.65	8.21	8.43	8.36	8.32	8.40	8.37
Average Daily Demand (MGD)				18.37	18.39	19.99	20.41	21.16	21.49	21.51
Peak Day Demand (MGD)				29.46	25.29	26.12	25.30	27.14	29.76	29.50
Safe Supply Capacity (MGD)				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
Miles of Water Mains				320.00	320.00	320.00	320.00	320.00	320.00	320.00
City Division Wastewater System: *										
Average Daily flow received at Klines Island (1)				30.71	32.39	30.44	29.67	30.78	36.07	37.64
Wastewater Allocation Used (MGD)				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
Miles of Pipe				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									
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
SUBURBAN DIVISION										
Administration, Customer Service & Clerical	12.4	12.1	11.4	10.6	9.8	9.3	10.1	10.0	11.3	12.5
Water Operations	14.0	14.0	13.4	15.2	14.8	14.2	15.3	18.2	17.0	17.1
Water Capital (1)	6.6	4.9	4.7	5.7	1.9	3.5	3.2	2.8	3.3	3.4
Wastewater Operations	4.7	5.3	5.8	5.5	5.8	6.5	7.1	6.9	7.1	8.5
Wastewater Capital (1)	2.0	3.3	2.9	1.3	1.0	1.0	1.0	1.3	1.7	2.9
CITY DIVISION (2) *										
Administration, Customer Service & Clerical				8.8	15.6	17.1	17.0	18.3	18.3	19.2
Water Operations				17.5	48.3	43.5	34.7	37.5	39.4	39.8
Water Capital (1)				1.6	2.0	4.4	6.9	5.8	4.9	3.0
Wastewater Operations				17.9	46.8	46.6	47.9	48.5	48.8	47.7
Wastewater Capital (1)				0.3	1.7	1.7	2.3	1.4	1.2	1.2
Total	39.7	39.6	38.2	84.4	147.7	147.8	145.5	150.7	153.0	155.3
# of Employees at year-end:										
Fulltime	40	40	37	141	150	148	148	155	160	162
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, 2019**

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 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., a position she has held for 20 years. She also served as Vice Chair of the Emmaus and Upper Milford Joint Environmental Advisory Council from 2006 to 2015, and on various committees of the Pennsylvania Municipal Authorities Association.

Bradford E. Landon, Solicitor (retired)

Bradford E. Landon served as the in-house solicitor for the Lehigh County Authority continuously from 1982 until his retirement in December 2019. As Solicitor, he served as the advisor on legal considerations affecting the Authority and pursued protection and enforcement of its legal rights.

Mr. Landon holds a Juris Doctorate degree from the T. C. Williams School of Law of the University of Richmond and a Bachelor of Arts degree from Dickinson College. He has been admitted to practice before the Supreme Court of Pennsylvania, the U.S. District Court - Middle District of Pennsylvania, and the U.S. District Court - Eastern District of Pennsylvania and is a member of the Lehigh County (PA) Bar Association, Pennsylvania Bar Association and American Bar Association.

A life-long resident of the Lehigh Valley, Mr. Landon has been involved with the Board of Directors of the Jim Thorpe Area School District, Lehigh Valley Legal Services and Penkernewek – The Pennsylvania Cornwall Association.

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

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA
PROFILE OF AUTHORITY MANAGEMENT STAFF
December 31, 2019
(Continued)**

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 objections 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 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.

Patricia L. Mandes, Chief Compliance Officer (retired)

Ms. Mandes holds a B.S. Degree in Environmental Science from the University of Pittsburgh. She joined the Authority in 2007 as a Projects Manager after nearly 20 years in municipal utility field. Positions previously held included Authority Manager of another authority and Industrial Pretreatment Coordinator. She holds a Class A-E, 1-4 Wastewater Certification, and is a past President of the Eastern Pennsylvania Water Pollution Control Operators Association and has previously served as a Director of the Pennsylvania Water Environment Association as well as serves on numerous committees. Ms. Mandes has served as Chairperson for the PA AWWA Water Utility Council, and as a Board Member on a local municipal authority. She has received numerous awards relating to the wastewater field. In April 2010, Ms. Mandes began serving as the Authority's Wastewater Services Director. Her responsibilities included management of the most significant wastewater operating and capital activities including oversight of the LCA Wastewater Treatment Plant, management of the Wastewater Capacity Development Plan, and management of the Authority's infiltration and inflow program. Ms. Mandes assumed the position of Compliance Director in August 2013 and Chief Compliance Officer in 2016. Prior to her retirement in November 2019, she oversaw compliance activities of the organization, managed the industrial Pretreatment Program and laboratories, and managed the Wastewater Infiltration and Inflow Programs and the Wastewater Capacity Program.

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA
PROFILE OF AUTHORITY MANAGEMENT STAFF
December 31, 2019
(Continued)**

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 development and implementation of a system-wide asset management program for Authority's water and wastewater systems, which will be used to manage and maintain the Authority's assets in a proactive manner. This program is used to help prioritize facility improvements projects in the capital planning process, with a focus on reducing long term life-cycle costs and sustained level of service. Mr. Volk also oversees operations and management of the Authority's industrial wastewater pre-treatment plant, and provides in-house engineering support across departments.

Susan Sampson, Customer Care & 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 Customer Care and Communications Manager, Ms. Sampson is responsible for the development and implementation of a strategic communications plan, including internal and external communications, managing the company website and social media. She oversees the Customer Care Department, supervising a staff of managers, supervisors and employees who are responsible for the day-to-day customer service functions, including billing, metering, collections, and field service coordination. In this role, she is also responsible for managing emergency notifications, mailings and resolution of complex customer matters, while keeping accurate customer data and information. In addition, she coordinates community relations on behalf of Lehigh County Authority, including youth outreach, volunteer events, site visits, speaking engagements, community partnerships and more.

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

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA
PROFILE OF AUTHORITY MANAGEMENT STAFF
December 31, 2019
(Continued)**

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., Interim 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.

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.

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA
PROFILE OF AUTHORITY MANAGEMENT STAFF
December 31, 2019
(Continued)**

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 and 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, 2019**

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 is 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 Salisbury Township School Board, Salisbury Township Commissioner, Salisbury Township Planning

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA
PROFILE OF AUTHORITY BOARD MEMBERS
December 31, 2019
(Continued)**

Commission and is currently on the Salisbury Township Education Foundation. 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 currently serves on the Board of Directors of the Allentown Public Library. 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, and member of the Haven House Advisory Board. She is currently 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. (CASA volunteers follow their case until there is completion, whether it is returning children to their parents or going through an adoption or other appropriate solution.) Ms. Rosenfeld became an Authority Board member in January 2015.

**LEHIGH COUNTY AUTHORITY
ALLENTOWN, PENNSYLVANIA
PROFILE OF AUTHORITY BOARD MEMBERS
December 31, 2019
(Continued)**

Kevin I. Baker, Assistant Treasurer – Term Expires December 31, 2020

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.

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 25 years of diverse engineering and client management experience in the water and wastewater industry. Mr. Morgan works for a small engineering firm, is familiar with all aspects of the National Pollution Discharge Elimination System (NPDES) Program and otherwise assures that municipalities/authorities comply with all of their water, wastewater and stormwater related regulatory requirements. He oversees and manages wastewater design and construction projects, attends public meetings, provides reports and makes presentations. Mr. Morgan also completes reports for projects related to Combined Sewer Systems/Combined Sewer Overflows, Toxics Reduction Evaluations, MS4 Stormwater Management Programs, PPC and Emergency Planning and Inflow/Infiltration. He assists municipalities/authorities with implementation of Industrial Pretreatment Programs (IPP) including preparation of detailed local limits analyses. Mr. Morgan has volunteered his time with various youth sports organizations over the years and is currently in his eleventh 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 high school 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

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

LCA Mission

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

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)

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 Date	Development	Municipality	Purchase Price	Original Customers	Current Customers
Water Systems:					
April 14, 1976	Fairways at Brookside	Lower Macungie Twp.	\$ 180,000	92	596
June 1, 1976	Millbrook Farms	Lower Macungie Twp.	92,339	2	321
July 1, 1976	Pine Grove Park	Lower Macungie Twp.	25,000	166	187
January 1, 1979	Shepherd Hills	Lower Macungie Twp.	325,000	453	674
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 & 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 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
Wastewater Systems:					
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
City Division System:					
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 12/31/19, not customer connections, for those systems acquired before 12/31/19.