



LEHIGH COUNTY AUTHORITY

LCA Main Office:
1053 Spruce Road
Wescosville, PA 18106
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Agendas & Minutes Posted:
www.lehighcountyauthority.org

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BOARD MEETING AGENDA – October 12, 2020 – 12:00 p.m.

Notice of COVID-19 Pandemic Meeting Format: Effective March 23, 2020 and until further notice, meetings of the LCA Board of Directors will be held virtually using the Zoom Meetings application, to avoid risk of infection during the national COVID-19 pandemic emergency. Public participation is welcomed via Zoom, and instructions for joining the meeting online or by phone are posted on the LCA website in the morning on the day of the meeting, prior to the start of each meeting. You may also issue comment to LCA via email to LCABoard@lehighcountyauthority.org in advance of any meeting, or view the meeting at a later time by visiting the LCA website. Please visit <https://www.lehighcountyauthority.org/about/lca-board-meeting-videos/> for specific instructions to join the meeting.

1. Call to Order

• NOTICE OF MEETING RECORDINGS

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

• *Public Participation Sign-In Request*

2. Review of Agenda / Executive Sessions

3. Approval of Minutes

• *September 28, 2020 Board meeting minutes*

4. Public Comments

5. Action / Discussion Items:

FINANCE AND ADMINISTRATION

- *2021 Preliminary Budget Review (Discussion)*
- *WLI User Charge Report (Preliminary Approval) (goldenrod)*

WATER

WASTEWATER

6. Monthly Project Updates / Information Items (1st Board meeting per month) – **October report attached**

7. Monthly Financial Review (2nd Board meeting per month)

8. Monthly System Operations Overview (2nd Board meeting per month)

9. Staff Comments

10. Solicitor's Comments

11. Public Comments / Other Comments

12. Executive Sessions

13. Adjournment

UPCOMING BOARD MEETINGS

October 26, 2020

November 9, 2020

November 23, 2020

PUBLIC PARTICIPATION POLICY

In accordance with Authority policy, members of the public shall record their name, address, and discussion item on the sign-in sheet at the start of each meeting; this information shall also be stated when addressing the meeting. During the Public Comment portions of the meeting, members of the public will be allowed 5 minutes to make comments/ask questions regarding non-agenda items, but time may be extended at the discretion of the Chair; comments/questions regarding agenda items may be addressed after the presentation of the agenda item. Members of the public may not request that specific items or language be included in the meeting minutes.

REGULAR MEETING MINUTES

September 28, 2020

The Regular Meeting of the Lehigh County Authority Board of Directors was called to order at 12:02 p.m. on Monday, September 28, 2020, Chairman Brian Nagle presiding. The meeting was held via video and audio advanced communication technology ("ACT"), using the Zoom internet application, due to the COVID-19 pandemic emergency. Each Board member and other attendees of the meeting were able to hear each other attendee and be heard by each other attendee. The public could also participate in the meeting via ACT, using the Zoom internet application. A Roll Call of Board members present was taken. Chairman Brian Nagle, Richard Bohner, Norma Cusick, Ted Lyons, Kevin Baker, Jeff Morgan, and Amir Famili were present for the duration of the meeting.

Solicitor Michael Gaul of KingSpry was present along with Authority Staff, Liesel Gross, Ed Klein, Lisa Miller, John Parsons, Todd Marion, Andrew Moore, Susan Sampson, Chris Moughan, Chuck Volk, and Phil DePoe.

REVIEW OF AGENDA

Liesel Gross stated there are no changes to the agenda and noted that the Budget material and presentation were emailed and posted to the website. Ms. Gross requested an Executive Session after the regular meeting to discuss matters of personnel.

APPROVAL OF MINUTES

September 14, 2020 Meeting Minutes

On a motion by Richard Bohner, seconded by Norma Cusick, the Board approved the minutes of the September 14, 2020 Board meeting as written (7-0).

PUBLIC COMMENTS

None.

ACTION AND DISCUSSION ITEMS

2021 Preliminary Budget Review (Presentation and discussion only)

Liesel Gross reviewed the Authority's budget development process and explained that today's presentation would cover the preliminary financial information for the 2021 Budget. Before the next Board meeting on October 12, modifications may be made to the figures to be presented today, and those modifications will be provided to the Board prior to the next meeting.

Ed Klein gave a PowerPoint presentation, which reviewed the 2021 Preliminary Budget details. He reviewed the staffing levels for each department, noting that the 2021 Budget will incorporate four additional positions. Richard Bohner asked about the Wastewater Services Manager position that was noted as remaining vacant in 2021, and how those responsibilities would be addressed. John Parsons and Liesel Gross explained that the person who held that positions provided ample notice of his retirement in 2020, allowing for proper succession planning activities to take place. The Wastewater Services Manager's duties were transitioned to other personnel over the last year or more, so that the position would not need to be filled when the retirement occurred last month. Mr. Klein then reviewed details of the various budgets included in the 2021 Preliminary Budget. In the Internal Services budget, he highlighted the reorganization of the budget into departmental units that

will provide more detail and accountability for expenses by each department manager. The internal Services expenses show a 9.1 percent increase from the 2020 Budget, mainly due to personnel, benefits, and information technology (IT).

Kevin Baker asked how the financial projections developed this summer to support the refinancing of the 2013 Lease Bonds are lining up with the 2021 Preliminary Budget. Mr. Klein stated that the preliminary figures for the 2021 City Division budget are in line with the projections.

For the Suburban Water Division budget, Mr. Klein explained that the preliminary budget is based on revenues increasing by 9.0 percent. This budgeted revenue increase is based on volume growth due to new connections, plus a rate increase of 7 to 7.5 percent. Rate projections will be presented in October. Mr. Klein explained that these revenue increases are necessary to achieve debt service coverage ratio of 1.10, which is required by the Suburban Water bonds. However, the Authority's internal financial target of 1.20 debt service coverage would not be achieved based on the preliminary budget figures presented. Mr. Klein reviewed the expense increases that are driving the need for significant rate increases in the Suburban Water Division. A primary driver is an increase in the cost to purchase water from the City of Allentown through a purchase agreement that was renegotiated this summer. In addition, staff additions to address preventive maintenance and technology upgrades in the Suburban Water systems are driving costs higher as well. As a result, even with a 9 percent revenue increase, limited operating cash is available for capital improvements, which will be funded through reserves in 2021. Mr. Klein noted that reserves are adequate to cover 2021 capital expenses without borrowing. Chuck Volk reviewed the planned capital improvements for 2021.

For the Suburban Wastewater Division budget, Mr. Klein explained that increased user revenues are expected due to higher projected municipal flows and loads, which will generate strong surpluses in 2021. The debt service coverage ratio remains well above internal targets and no borrowing is required to cover 2021 capital improvements costs. Chuck Volk discussed the wastewater capital budget and explained that the budget is lower than prior years because the Park Pump Station, Wynnwood Wastewater Treatment Plant, and the Sand Springs Wastewater Treatment Plant projects are nearing completion. While significant work is expected to be completed to develop additional sewer capacity and address the conveyance system bottleneck in the Trexlertown area, the work in 2021 will primarily focus on engineering and planning activities, which can be paid through existing reserves.

For the City Division budget, Mr. Klein explained that key components of the settlement agreement and amended lease agreement have been incorporated into the 2021 Preliminary Budget. This includes revenue increases due to rate changes and increase in water purchase revenue from the Suburban Water Division. Operating expenses are generally lower than the 2020 Budget and debt service is also reduced due to the refinancing of a portion of the 2013 Lease Bonds that was completed in September 2020. However, some expenses will increase due to additional payments to the City of Allentown based on the settlement agreement, along with higher capital expenses. He noted that the purpose of the settlement was to ensure funding is available for capital improvements, which is illustrated in the 2021 Preliminary Budget. Chuck Volk reviewed the capital improvements planned for 2021 in the City Division and highlighted new projects that were previously unfunded. In 2021, the Authority will restart its water main replacement program and complete 1 mile of water main replacement. Structural repairs noted in the annual bond indenture report will be completed. At the Kline's Island Wastewater Treatment Plant, the boiler replacement project will move forward in 2021. At the Water Filtration Plant, the project to replace the variable frequency drives (VFDs) for the high lift pumps will also move forward. Ed Klein noted that the VFD project was omitted from the 2021 Preliminary Budget, along with information about the potential financing of that project through

a PENNVEST loan. This information will be added to the modified budget figures presented to the Board in October.

Brian Nagle asked whether the additional costs associated with renegotiated water purchase agreement between the Authority and the City of Allentown were appropriate to pass on to the Suburban Water Division customers. He noted that the settlement agreement with Allentown has regional benefits and inquired whether the cost increase could be shared differently. Liesel Gross explained that the renegotiated water purchase agreement is somewhat separate from the other terms of the settlement agreement. The primary benefit of the renegotiated water purchase agreement is that the actual cost to produce water at the City's water filtration plant is shared equitably among all users. The rate paid by the Authority to purchase water for its Suburban Water Division had not covered the actual cost to produce the water at the plant, and the renegotiated agreement addresses that issue. Therefore, the Suburban Water Division and its customers would be paying a higher rate, but that higher rate is based on the actual cost to run the water plant.

Ms. Gross noted that at the next meeting, the Board will receive updated 2021 Budget statements. Also, at the next meeting, Jennifer Montero, the Authority's Contracts Administrator, will provide the Western Lehigh User Charge Report for Board discussion and preliminary approval. Rates for the Suburban Water Division and City Division will also be discussed over the course of the next several meetings.

Amir Famili asked if there is a plan in place if the pandemic situation worsens and expenses and revenues continue to be adversely affected. Ed Klein explained that the 2021 Preliminary Budget includes conservative revenue and expense figures based on some continuation of the pandemic effects but does not include plans for another complete business shutdown, as occurred in early 2020. He noted that if that situation would happen again in 2021, the Authority would approach it in a similar fashion including instituting hiring freeze and deferring non-critical projects. Liesel Gross added that the Lease Agreement allows for discussion with the City of Allentown about a reduction of Operating Standards requirements in the event of an emergency, which could also be instituted to save expenses if needed.

Jennifer McKenna, City of Allentown Office of Compliance, thanked Ms. Gross for her clarification regarding the water supply agreement and reiterated that the amended agreement provides for a fairer method of sharing the cost of water production among all users. She also commented on the flow characterization study that is included in the City Division wastewater capital budget, explaining that the project will be pre-funded by the City but the costs will be shared by all municipalities due to the project's benefit to the region.

MONTHLY FINANCIAL REVIEW

Ed Klein gave a brief overview of the August 2020 Financial statements, noting the variances from the 2020 forecast.

MONTHLY SYSTEM OPERATIONS OVERVIEW

John Parsons reviewed the August 2020 operations report, noting that the number of sanitary sewer overflows (SSOs) and bypasses was incorrectly reported in the report. There were 27 SSOs and bypasses in August 2020, all resulting from Hurricane Isaias's record rainfall and flooding on August 5th.

STAFF COMMENTS

None.

SOLICITOR'S COMMENTS

None.

PUBLIC COMMENTS / OTHER COMMENTS

None.

EXECUTIVE SESSION

ADJOURNMENT

There being no further business, the Chairman adjourned the meeting at 1:40 p.m.

Richard Bohner
Secretary



LEHIGH COUNTY AUTHORITY

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MEMORANDUM

TO: LCA Board of Directors
FROM: Liesel Gross
DATE: October 5, 2020
RE: 2021 Proposed Budget & Suburban Water Rates

Attachment: LCA 2021 Proposed Budget

At the Lehigh County Authority (LCA) Board of Directors' meetings in September, staff have presented organizational goals and expense drivers to be incorporated into the 2021 Budget. Attached to this memo is a revised 2021 Proposed Budget that incorporates corrections and modifications developed since the Board meeting on September 28, 2020. The remainder of this memo discusses cost and rate impacts for the Suburban Water Division, which requires further discussion.

Suburban Water Division – Drivers for Revenue / Rate Increase Requirements

Incorporated in the attached 2021 Budget proposal are modifications to the Suburban Water Division financial statements designed to achieve the key financial target of 1.20 debt service coverage. In completing this budget proposal, LCA staff have reviewed the needs of the Suburban Water Division and the impact to revenue requirements and customer rates. Achieving debt service coverage of at least 1.20 is important for the following key reasons:

- LCA's bond covenants require a minimum coverage of 1.10
- Planning for some cushion above bond requirements allows for flexibility in the event of an emergency
- Achieving 1.20 coverage is a minimum threshold to illustrate to potential future lenders that LCA is financially stable and able to take on additional debt, if needed
- Additional cash is available for necessary capital improvements if LCA achieves or exceeds the 1.20 coverage, reducing the future need to borrow

There are two primary drivers creating pressure on the Suburban Water budget in 2021, which were also described during the presentation to LCA's Board of Directors on September 28, 2020:

1. Cost of Water Purchase:

In 2020, LCA and the City of Allentown agreed to amend the Water Purchase Agreement between the two entities to provide the following regional benefits:

- a. **Long-Term Commitment** – The agreement was extended an additional 30 years to 2063, to match the term of the Allentown Water & Sewer Lease. This is a major benefit to LCA

Every drop matters. Every customer counts.

in securing a high-quality, reliable source of water for its customers for the foreseeable future.

- b. **Watershed-Based Resource Management** – Considering LCA’s role as the operator of the Allentown water system in addition to owning and operating the Suburban Water system, the extension of the agreement will allow LCA to manage water resources on a more regional, watershed basis. This provides the opportunity for long-term environmental benefits in addition to future efficiencies.
- c. **Equitable Cost Sharing** – The amended agreement allows LCA to purchase 7 million gallons of water per day from the Allentown system and pay only the proportionate share of the true cost of production and treatment of water. While the resulting rate LCA’s Suburban Water system will pay for water is higher than the rate it previously paid, it is an equitable distribution of these costs to all users within LCA’s service area.

The anticipated cost increase in 2021 for the water purchased from the Allentown system is \$675,000. This is a one-time increase in this budget line item, and future rates for this water purchase will increase incrementally based on actual cost increases to operate and maintain the Allentown water filtration plant.

2. Staffing & Preventive Maintenance:

Since the 1960s, LCA has enjoyed the benefits of operating a relatively “young” system that required less maintenance and repairs than some older urban water systems in our region. This has allowed us to keep water rates low and minimize staffing additions over time. However, much of our Suburban Water system is now reaching that critical 50-year milestone and preventive maintenance programs must be increased to ensure the safety and reliability of our service to this community with a growing economic base. Regulatory requirements have also increased substantially during this same time period, along with increased demand for water by industrial customers.

At the same time, LCA’s long-tenured, knowledgeable employees are retiring at greater frequency. Over the past several years, staff additions have been required to address both the increase in system requirements for maintenance and regulatory monitoring as well as the loss of key employees. While LCA has controlled the growth of its employee base each year, the compounding impact of adding new staff members each year has a significant impact on personnel and benefits costs.

To address these increasing costs, which are essential to providing service to our customers, rate increases will be necessary. LCA’s previous forecasts have called for annual rate increases between 6 percent and 6.5 percent over the next five years to provide additional funding for capital improvements. However, those forecasts did not include the operating expense increases described above. To ease the burden on customers in 2021, LCA staff recommend a rate increase for Suburban Water customers that captures the operational expense increases described above this year, plus the

necessary cushion to achieve 1.20 debt service coverage, also described above. The 2021 capital budget for Suburban Water is proposed to remain less than \$4 million, which can be covered by existing reserves. Future increases in 2022 and beyond will be designed to rebuild LCA's capital funding capacity.

2021 Rate Proposal – Suburban Water Division

To achieve the debt service and operating expense coverages described in this memo, a total revenue increase of 12 percent is required, which equates to a revenue increase of \$1.25 million. LCA expects approximately 1.5 percent (or approximately \$160,000) in additional revenue from new customers expected to connect to the water system in 2021. Therefore, a rate increase of 10.5 percent will be required to generate the remainder of the additional revenue required.

Rate Design Considerations:

- Since \$675,000 of the expense increase is essentially a fixed cost related to the purchase of water from the City of Allentown on a take-or-pay basis, LCA's fixed charges should be increased to capture that cost in 2021.
- However, since growth within LCA's industrial user base has created additional pressure to expand the capacity of the system, increase maintenance schedules, and increase our variable costs, the remainder of the rate increase should be incorporated into the volume rates paid by those larger users.

The following rate structure was developed to capture these considerations:

Current Fixed Charges		PROPOSED
Meter Size	Fixed Charge	Fixed Charge
<u>Quarterly</u>		
5/8" & 3/4" *	\$ 13.05	\$ 20.05
1"	23.13	35.54
<u>Monthly</u>		
1-1/2"	17.53	26.93
2"	24.26	37.27
3"	43.80	67.29
4"	64.20	98.64
6"	120.30	184.83
8"	186.90	287.15
10"	263.10	404.23

*Typical residential customer uses a 5/8" meter.

Current Volume Charges			2021 PROPOSED
Quarterly Usage (gal.)	Monthly Usage (gal.)	Rate per 1,000 Gal.	Rate per 1,000 Gal.
First 120,000	First 0 - 40,000	\$2.76	\$2.76 (no change)
Next 2,880,000	Next 960,000	\$2.50	\$2.68
Next 24,000,000	Next 8,000,000	\$2.18	\$2.33
Next 147,000,000	Next 49,000,000	\$1.88	\$2.01
Over 174,000,000	Over 58,000,000	\$1.70	\$1.82

Customer Impacts:

For a typical residential customer, the impact will be \$7 per quarter, or \$28 per year. Because there is no proposed change in the volume charge for smaller water users, this is a flat increase for all residential customers.

For larger customers, the rate impact will be variable depending on how much water is used.

For all customers, the expected rate impact is between 7 percent and 12 percent, depending on customer class and usage.

Discussion

Based on the proposed rate structure described above, and using estimated water sales and volume growth in 2021, these rate increases are anticipated to generate the required 12 percent increase in revenues to the Suburban Water Division in 2021.

This information is provided for discussion purposes at the October 12, 2020 LCA Board meeting. While the increase in operating expenses are unlikely to change significantly between now and final budget presentation at the end of October, questions about rate structure and customer impact can be explored further if desired.

LEHIGH COUNTY AUTHORITY
2021 PRELIMINARY BUDGET

BOARD REVIEW:
OCTOBER 12, 2020

Consolidated Statements

LEHIGH COUNTY AUTHORITY **2021 BUDGET** **SUMMARY**

	<u>Budget</u> <u>2021</u>	<u>Forecast</u> <u>2020</u>	<u>Budget</u> <u>2020</u>	<u>Actual</u> <u>2019</u>
NET INCOME				
Suburban Water	183,548	1,212,986	(78,407)	2,670,094
Suburban Wastewater	1,175,879	1,954,282	(1,269,292)	(473,333)
City Division	865,692	(4,486,406)	(4,106,561)	(4,130,921)
Total LCA	<u>2,225,119</u>	<u>(1,319,138)</u>	<u>(5,454,260)</u>	<u>(1,934,160)</u>
NET CASH FLOWS				
Suburban Water	(3,490,171)	(2,541,761)	(2,048,282)	2,681,907
Suburban Wastewater	2,321,827	2,608,733	17,484,855	(1,685,495)
City Division	4,663,547	2,484,397	3,142,950	(3,065,798)
Total LCA	<u>3,495,203</u>	<u>2,551,368</u>	<u>18,579,523</u>	<u>(2,069,386)</u>
CAPITAL SPENDING				
Suburban Water	4,190,000	4,321,275	8,010,000	8,764,955
Suburban Wastewater	3,921,800	4,470,734	8,670,500	10,671,537
City Division	8,877,500	2,993,864	4,815,000	4,399,156
Total LCA	<u>16,989,300</u>	<u>11,785,873</u>	<u>21,495,500</u>	<u>23,835,648</u>
DEBT SERVICE COVERAGE RATIO				
Suburban Water	1.20	1.51	1.25	1.56
Suburban Wastewater	9.54	10.59	3.18	6.03
City Division	1.69	1.48	1.52	1.63
Total LCA	<u>1.91</u>	<u>1.88</u>	<u>1.60</u>	<u>1.80</u>

LEHIGH COUNTY AUTHORITY
2021 BUDGET
CASH FLOW STATEMENT

	Suburban Water				Suburban Wastewater				City Division				Total LCA			
	Budget 2021	Forecast 2020	Budget 2020	Actual 2019	Budget 2021	Forecast 2020	Budget 2020	Actual 2019	Budget 2021	Forecast 2020	Budget 2020	Actual 2019	Budget 2021	Forecast 2020	Budget 2020	Actual 2019
CONDENSED CASH FLOWS																
Operating Revenues	12,742,424	11,342,949	11,358,510	10,948,822	20,032,585	19,029,103	17,292,436	15,679,444	46,003,744	37,595,382	41,672,288	39,313,514	78,778,752	67,967,435	70,323,234	65,941,780
Operating Expenses	(8,637,776)	(6,134,848)	(7,334,728)	(6,027,132)	(13,248,399)	(11,391,541)	(12,355,646)	(11,716,436)	(19,229,140)	(18,501,175)	(18,659,910)	(18,165,550)	(41,115,315)	(36,027,565)	(38,350,284)	(35,909,118)
Net Cash Available for Debt Service	4,104,648	5,208,101	4,023,782	4,921,690	6,784,186	7,637,562	4,936,790	3,963,008	26,774,603	19,094,207	23,012,378	21,147,964	37,663,437	31,939,870	31,972,950	30,032,662
Debt Service	(3,499,146)	(3,517,659)	(3,341,564)	(3,270,166)	(731,029)	(737,954)	(1,616,435)	(712,225)	(14,225,917)	(12,648,837)	(15,421,170)	(13,416,749)	(18,456,092)	(16,904,450)	(20,379,169)	(17,399,140)
Net Cash After Debt Service	605,502	1,690,442	682,218	1,651,524	6,053,157	6,899,608	3,320,355	3,250,783	12,548,686	6,445,370	7,591,208	7,731,215	19,207,345	15,035,420	11,593,781	12,633,522
Interest Income	94,327	89,072	160,000	179,193	190,471	179,859	200,000	332,846	172,960	166,148	900,000	1,193,617	457,758	435,079	1,260,000	1,705,656
Other Payments	-	-	-	-	-	-	-	-	(1,230,600)	(533,258)	(533,258)	(524,861)	(1,230,600)	(533,258)	(533,258)	(524,861)
Investment Activity	-	-	-	3,465,332	-	-	-	(1,266,225)	-	-	-	4,000,000	-	-	-	6,199,107
Non-Cash Working Capital Dec (Inc)	-	-	-	6,150,814	-	-	-	6,668,638	50,000	(600,000)	-	(11,066,614)	50,000	(600,000)	-	1,752,838
Net Available for Capex	699,829	1,779,514	842,218	11,446,863	6,243,627	7,079,467	3,520,355	8,986,042	11,541,047	5,478,260	7,957,950	1,333,357	18,484,503	14,337,241	12,320,523	21,766,262
New Borrowing	-	-	5,119,500	-	-	-	22,635,000	-	2,000,000	-	-	-	2,000,000	-	27,754,500	-
Capex	(4,190,000)	(4,321,275)	(8,010,000)	(8,764,955)	(3,921,800)	(4,470,734)	(8,670,500)	(10,671,537)	(8,877,500)	(2,993,864)	(4,815,000)	(4,399,156)	(16,989,300)	(11,785,873)	(21,495,500)	(23,835,648)
NET CASH FLOWS	(3,490,171)	(2,541,761)	(2,048,282)	2,681,907	2,321,827	2,608,733	17,484,855	(1,685,495)	4,663,547	2,484,397	3,142,950	(3,065,798)	3,495,203	2,551,368	18,579,523	(2,069,386)
Beginning Unrestricted Cash Balance	6,700,850	9,242,611	11,749,926	6,560,704	9,665,920	7,057,187	7,184,908	8,742,682	6,267,443	3,783,046	6,775,210	6,848,844	22,634,213	20,082,844	25,710,044	22,152,230
ENDING UNRESTRICTED CASH BALANCE	<u>3,210,679</u>	<u>6,700,850</u>	<u>9,701,644</u>	<u>9,242,611</u>	<u>11,987,747</u>	<u>9,665,920</u>	<u>24,669,763</u>	<u>7,057,187</u>	<u>10,930,990</u>	<u>6,267,443</u>	<u>9,918,160</u>	<u>3,783,046</u>	<u>26,129,416</u>	<u>22,634,212</u>	<u>44,289,567</u>	<u>20,082,844</u>
KEY METRICS																
Operating Ratio with D&A	1.13	1.29	1.13	1.27	1.06	1.12	0.96	0.96	1.66	1.46	1.53	1.56	1.36	1.32	1.27	1.31
Debt Service Coverage Ratio	1.20	1.51	1.25	1.56	9.54	10.59	3.18	6.03	1.69	1.48	1.52	1.63	1.91	1.88	1.60	1.80
Capital Coverage Ratio	0.17	0.41	0.11	1.31	1.59	1.58	0.41	0.84	1.30	1.83	1.65	0.30	1.09	1.22	0.57	0.91
Unrestricted Days Cash on Hand	135.62	398.45	482.56	559.73	307.09	284.72	674.21	219.85	182.33	115.60	117.89	71.12	213.02	215.60	357.73	197.26
Unrestricted Investment Balances	3,136,930	3,136,930	1,785,733	3,136,930	7,757,276	7,757,276	-	7,757,276	-	-	-	-	10,894,206	10,894,206	1,785,733	10,894,206

LEHIGH COUNTY AUTHORITY
STATEMENTS OF CASH FLOWS
2021 Preliminary Budget and Comparative Prior Period Data (as of 10-12-2020)

	Suburban Water				Suburban Wastewater				City Division				Total LCA			
	Budget 2021	Forecast 2020	Budget 2020	Actual 2019	Budget 2021	Forecast 2020	Budget 2020	Actual 2019	Budget 2021	Forecast 2020	Budget 2020	Actual 2019	Budget 2021	Forecast 2020	Budget 2020	Actual 2019
Cash Flows From Operating Activities																
Cash Received From Customers	11,770,317	10,519,685	10,445,176	9,683,543	19,122,546	15,579,443	16,445,982	14,529,734	41,697,349	35,164,897	36,859,377	37,928,277	72,590,212	61,264,025	63,750,535	62,141,554
Cash Payments To Suppliers For Goods And Services	(4,609,574)	(3,415,342)	(4,077,416)	(2,941,170)	(11,285,608)	(10,097,000)	(10,894,966)	(8,990,626)	(5,914,258)	(4,853,895)	(4,782,506)	(5,161,578)	(21,809,440)	(18,366,237)	(19,754,888)	(17,093,374)
Cash Payments To Employees For Services	(3,953,337)	(2,646,822)	(3,257,312)	(2,424,596)	(1,916,369)	(1,249,472)	(1,428,392)	(1,225,336)	(13,300,911)	(13,633,715)	(12,518,341)	(12,439,051)	(19,170,617)	(17,530,009)	(17,204,045)	(16,088,983)
Other Operating Cash Receipts	29,124	26,719	136,834	73,566	43,823	47,381	172	241,900	349,165	223,554	456,111	418,299	422,112	297,654	593,117	733,765
Net Cash Provided By Operating Activities	3,236,530	4,484,240	3,247,282	4,391,343	5,964,392	4,280,353	4,122,796	4,555,672	22,831,346	16,900,840	20,014,641	20,745,947	32,032,267	25,665,432	27,384,719	29,692,962
Cash Flows From Noncapital Financing Activities																
Interest Paid on Revenue Bonds and Notes	-	-	-	-	-	-	-	-	(11,525,086)	(10,608,837)	(13,978,238)	(13,416,749)	(11,525,086)	(10,608,837)	(13,978,238)	(13,416,749)
Facility Improvement Payments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Payments to the City of Allentown	-	-	-	-	-	-	-	-	(1,230,600)	(533,258)	(533,258)	(524,861)	(1,230,600)	(533,258)	(533,258)	(524,861)
Transfers To/From Other Funds	-	-	-	5,976,539	-	-	-	4,388,173	-	(29,516)	(10,364,712)	(29,516)	-	(29,516)	-	-
Net Cash Provided By (Used in) Noncapital Financing Activities	-	-	-	5,976,539	-	-	-	4,388,173	(12,755,686)	(11,142,095)	(14,541,012)	(24,306,322)	(12,755,686)	(11,142,095)	(14,541,012)	(13,941,610)
Cash Flows From Capital And Related Financing Activities																
Receipts/(Release) of Developer Deposits	-	-	-	476,525	-	-	-	15,595	-	-	-	3,789	-	-	-	495,909
Payments of Developer Deposits	-	-	-	(705,174)	-	-	-	-	-	-	-	-	-	-	-	(705,174)
Payments of Facilities Planning Costs	-	-	-	(23,211)	-	-	-	(10,800)	-	-	-	-	-	-	-	(34,011)
Acquisition and Construction of Property and Equipment	(4,190,000)	(4,321,275)	(8,010,000)	(8,764,955)	(3,921,800)	(4,470,734)	(8,670,500)	(10,671,537)	(8,877,500)	(2,993,864)	(4,815,000)	(4,399,156)	(16,989,300)	(11,785,873)	(21,495,500)	(23,835,648)
Cash Received from Tapping and Capital Recovery Fees	443,721	500,109	472,000	418,775	835,098	3,396,323	800,000	1,573,749	1,773,409	1,460,927	1,534,700	1,707,128	3,052,228	5,357,358	2,806,700	3,699,652
Cash Received from Meter Sales	100,744	55,361	108,000	94,763	-	-	-	-	23,387	39,787	292,000	22,466	124,131	95,148	400,000	117,229
Cash Received from Inspection, Plan Reviews, and Project Reimbursements	367,574	211,855	161,000	393,187	30,489	5,364	45,282	42,518	3,314,306	1,870,486	2,495,100	448,402	3,712,370	2,087,705	2,701,382	884,107
Other Capital Cash Receipts	30,944	29,220	35,500	93,928	628	593	1,000	118,149	59,249	56,915	35,000	59,659	90,821	86,728	71,500	271,736
Other Capital Cash Payments	(74,864)	(72,684)	-	(98,246)	(46,422)	(45,070)	(299,707)	-	(1,287,924)	(1,301,489)	(1,329,547)	(1,281,395)	(1,409,210)	(1,419,243)	(1,629,254)	(1,379,641)
Revenue Bond and Note Issuance Proceeds	-	-	5,119,500	-	-	-	22,500,000	-	2,000,000	-	-	-	2,000,000	-	27,619,500	-
Principal Paid On Revenue Bonds	(1,839,786)	(1,832,994)	(1,588,963)	(1,481,325)	(114,259)	-	-	(78,904)	(2,570,000)	(2,573,258)	(1,442,932)	(1,245,000)	(4,524,045)	(4,406,252)	(3,031,895)	(2,805,229)
Notes Payable	(253,032)	(248,378)	(243,812)	(243,812)	(434,775)	(427,162)	(427,000)	(420,205)	-	-	-	-	(687,807)	(675,540)	(670,812)	(664,017)
Interest Paid on Revenue Bonds and Notes	(1,406,328)	(1,436,287)	(1,506,789)	(1,468,258)	(181,985)	(310,792)	(803,082)	(213,114)	(20,000)	-	-	-	(1,608,323)	(1,747,079)	(2,311,871)	(1,681,372)
Net Cash Provided by (Used in) Capital and Related Financing Activities	(6,821,027)	(7,115,073)	(5,455,564)	(11,307,803)	(3,833,035)	(1,851,479)	13,145,993	(9,644,549)	(5,585,073)	(3,440,496)	(3,230,679)	(4,684,107)	(16,239,135)	(12,407,048)	4,459,750	(25,636,459)
Cash Flows From Investing Activities																
Maturities of Certificates Of Deposit	-	-	-	3,808,000	-	-	-	14,866,203	-	-	-	-	-	-	-	18,674,203
Purchase of Certificates Of Deposit	-	-	-	(2,572,668)	-	-	-	(16,147,680)	-	-	-	-	-	-	-	(18,720,348)
Purchase of U.S. Treasury Obligations	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maturities of U.S. Treasury Obligations	-	-	-	2,230,000	-	-	-	-	-	-	-	4,000,000	-	-	-	6,230,000
Interest Received On Investments	94,327	89,072	160,000	156,496	190,471	179,859	216,066	296,686	172,960	166,148	900,000	1,178,684	457,758	435,079	1,276,066	1,631,866
Net Cash Provided by (Used in) Investing Activities	94,327	89,072	160,000	3,621,828	190,471	179,859	216,066	(984,791)	172,960	166,148	900,000	5,178,684	457,758	435,079	1,276,066	7,815,721
Net Increase (Decrease) in Cash	(3,490,171)	(2,541,761)	(2,048,282)	2,681,907	2,321,827	2,608,733	17,484,855	(1,685,495)	4,663,547	2,484,397	3,142,950	(3,065,798)	3,495,204	2,551,368	18,579,523	(2,069,386)
Cash:																
Beginning	10,276,125	12,817,886	13,333,626	10,135,979	10,003,852	7,395,119	7,522,470	9,080,614	61,943,750	59,459,353	54,266,491	62,525,151	82,223,726	79,672,358	75,122,587	81,741,744
Ending	6,785,954	10,276,125	11,285,344	12,817,886	12,325,679	10,003,852	25,007,325	7,395,119	66,607,297	61,943,750	57,409,441	59,459,353	85,718,930	82,223,726	93,702,110	79,672,358
Cash Consisted of the Following:																
Cash and Cash Equivalents	3,210,679	6,700,850	9,701,644	9,242,611	11,987,747	9,665,920	24,669,763	7,057,187	19,808,346	15,144,799	9,918,160	12,660,402	35,006,772	31,511,568	44,289,567	28,960,200
Restricted Cash and Cash Equivalents	3,575,275	3,575,275	1,583,700	3,575,275	337,932	337,932	337,562	337,932	46,798,951	46,798,951	47,491,281	46,798,951	50,712,158	50,712,158	49,412,543	50,712,158
Total Cash and Cash Equivalents	6,785,954	10,276,125	11,285,344	12,817,886	12,325,679	10,003,852	25,007,325	7,395,119	66,607,297	61,943,750	57,409,441	59,459,353	85,718,930	82,223,726	93,702,110	79,672,358

LEHIGH COUNTY AUTHORITY
CASH & INVESTMENT SUMMARY
2021 Preliminary Budget and Comparative Prior Period Data (as of 10-12-20)

	Suburban Water				Suburban Wastewater				City Division				Total LCA			
	Budget 2021	Forecast 2020	Budget 2020	Actual 2019	Budget 2021	Forecast 2020	Budget 2020	Actual 2019	Budget 2021	Forecast 2020	Budget 2020	Actual 2019	Budget 2021	Forecast 2020	Budget 2020	Actual 2019
Cash																
Operating																
Unrestricted	1,168,222	4,658,393	7,664,396	7,205,363	4,315,728	1,993,900	16,997,744	(614,832)	19,638,366	15,574,819	9,748,180	12,490,422	25,122,316	22,227,112	34,410,320	19,080,953
Restricted	2,532,181	2,532,181	203,046	2,532,181	0	0	(370)	0	1,614,754	1,614,754	2,307,084	1,614,754	-	-	-	-
Total Operating	3,700,403	7,190,574	7,867,442	9,737,544	4,315,728	1,993,900	16,997,374	(614,832)	21,253,120	17,189,573	12,055,264	14,105,176	25,122,316	22,227,112	34,410,320	19,080,953
Capital																
Unrestricted	2,042,457	2,042,457	2,037,248	2,037,248	7,672,019	7,672,019	7,672,019	7,672,019	169,980	169,980	169,980	169,980	9,884,456	9,884,456	9,879,247	9,879,247
Restricted	-	-	-	-	337,932	337,932	337,932	337,932	7,500,000	7,500,000	7,500,000	7,500,000	7,837,932	7,837,932	7,837,932	7,837,932
Total Capital	2,042,457	2,042,457	2,037,248	2,037,248	8,009,951	8,009,951	8,009,951	8,009,951	7,669,980	7,669,980	7,669,980	7,669,980	17,722,388	17,722,388	17,717,179	17,717,179
Other Restricted																
Debt Reserves	1,043,094	1,043,094	1,380,654	1,043,094	-	-	-	-	37,684,197	37,684,197	37,684,197	37,684,197	38,727,291	38,727,291	39,064,851	38,727,291
Escrow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Other Restricted	1,043,094	1,043,094	1,380,654	1,043,094	-	-	-	-	37,684,197	37,684,197	37,684,197	37,684,197	38,727,291	38,727,291	39,064,851	38,727,291
Total Cash	6,785,954	10,276,125	11,285,344	12,817,886	12,325,679	10,003,852	25,007,325	7,395,119	66,607,297	62,543,750	57,409,441	59,459,353	81,571,995	78,676,791	91,192,350	75,525,423
Investments																
Operating																
Unrestricted	2,136,930	2,136,930	785,733	2,136,930	6,757,276	6,757,276	(1,000,000)	6,757,276	-	-	-	-	8,894,206	8,894,206	(214,267)	8,894,206
Restricted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Operating	2,136,930	2,136,930	785,733	2,136,930	6,757,276	6,757,276	(1,000,000)	6,757,276	-	-	-	-	8,894,206	8,894,206	(214,267)	8,894,206
Capital																
Unrestricted	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	-	-	-	-	2,000,000	2,000,000	2,000,000	2,000,000
Restricted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Capital	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	-	-	-	-	2,000,000	2,000,000	2,000,000	2,000,000
Other Restricted																
Debt Reserves	-	-	2,214,267	-	-	-	-	-	24,117,855	-	3,940,640	-	24,117,855	-	6,154,907	-
Escrow	4,236,279	4,236,279	4,411,722	4,236,279	-	-	-	-	-	-	-	-	4,236,279	4,236,279	4,411,722	4,236,279
Total Other Restricted	4,236,279	4,236,279	6,625,989	4,236,279	-	-	-	-	24,117,855	-	3,940,640	-	28,354,134	4,236,279	10,566,629	4,236,279
Total Investments	7,373,209	7,373,209	8,411,722	7,373,209	7,757,276	7,757,276	-	7,757,276	24,117,855	-	3,940,640	-	39,248,340	15,130,485	12,352,362	15,130,485
Total Cash and Investments	14,159,163	17,649,334	19,697,066	20,191,095	20,082,955	17,761,128	25,007,325	15,152,395	90,725,152	62,543,750	61,350,081	59,459,353	120,820,335	93,807,276	103,544,712	90,655,908
Summary																
Cash																
Unrestricted	3,210,679	6,700,850	9,701,644	9,242,611	11,987,747	9,665,920	24,669,763	7,057,187	19,808,346	15,744,799	9,918,160	12,660,402	35,006,772	32,111,568	44,289,567	28,960,200
Restricted	3,575,275	3,575,275	1,583,700	3,575,275	337,932	337,932	337,562	337,932	46,798,951	46,798,951	47,491,281	46,798,951	50,712,158	50,712,158	49,412,543	50,712,158
Total Cash	6,785,954	10,276,125	11,285,344	12,817,886	12,325,679	10,003,852	25,007,325	7,395,119	66,607,297	62,543,750	57,409,441	59,459,353	85,718,930	82,823,726	93,702,110	79,672,358
Investments																
Unrestricted	3,136,930	3,136,930	1,785,733	3,136,930	7,757,276	7,757,276	-	7,757,276	-	-	-	-	10,894,206	10,894,206	1,785,733	10,894,206
Restricted	4,236,279	4,236,279	6,625,989	4,236,279	-	-	-	-	24,117,855	-	3,940,640	-	28,354,134	4,236,279	10,566,629	4,236,279
Total Investments	7,373,209	7,373,209	8,411,722	7,373,209	7,757,276	7,757,276	-	7,757,276	24,117,855	-	3,940,640	-	39,248,340	15,130,485	12,352,362	15,130,485
Total Cash and Investments	14,159,163	17,649,334	19,697,066	20,191,095	20,082,955	17,761,128	25,007,325	15,152,395	90,725,152	62,543,750	61,350,081	59,459,353	124,967,270	97,954,211	106,054,472	94,802,843

**LEHIGH COUNTY AUTHORITY
2021 BUDGET
NET INCOME STATEMENT**

	Suburban Water				Suburban Wastewater				City Division				Total LCA			
	Budget 2021	Forecast 2020	Budget 2020	Actual 2019	Budget 2021	Forecast 2020	Budget 2020	Actual 2019	Budget 2021	Forecast 2020	Budget 2020	Actual 2019	Budget 2021	Forecast 2020	Budget 2020	Actual 2019
OPERATING FUNDS																
Operating Revenues:																
User Charges																
Charges for Services	11,770,317	10,519,685	10,445,176	9,780,119	19,122,546	15,579,443	16,445,982	13,983,285	41,647,349	35,764,897	36,859,377	36,657,562	72,540,212	61,864,025	63,750,535	60,420,966
Rent	-	-	111,213	125,253	-	-	-	-	-	-	-	-	-	-	111,213	125,253
Other Income	29,124	26,719	25,621	42,798	43,823	47,381	172	79,277	349,165	223,554	456,111	418,299	422,112	297,654	481,904	540,374
Total User Charges	11,799,441	10,546,404	10,582,010	9,948,169	19,166,369	15,626,824	16,446,154	14,062,562	41,996,514	35,988,451	37,315,488	37,075,861	72,962,324	62,161,679	64,343,652	61,086,592
Connection & System Charges																
Supply/Tapping Fees	382,712	411,960	387,000	360,815	-	-	-	-	22,342	3,579	18,500	21,462	405,054	415,539	405,500	382,277
Capital Cost Recovery	-	-	-	-	359,513	1,525,234	295,000	1,199,847	1,150,235	1,405,513	1,397,000	1,105,691	1,509,748	2,930,747	1,692,000	2,305,538
Distribution Tapping Fees	61,009	88,149	85,000	57,960	475,585	1,871,089	505,000	373,902	600,832	51,834	119,200	579,975	1,137,426	2,011,072	709,200	1,011,836
Meter Sales	100,744	55,361	108,000	94,763	-	-	-	-	23,387	39,787	292,000	22,466	124,131	95,148	400,000	117,229
Inspection & Review Fees	77,000	103,287	161,000	119,665	-	857	45,282	13,727	31,569	39,345	180,100	30,326	108,569	143,489	386,382	163,718
Developer Reimbursement	290,574	108,568	-	273,522	30,489	4,507	-	28,791	2,119,615	9,958	2,315,000	418,075	2,440,679	123,033	2,315,000	720,387
Total Connection & System Charges	912,039	767,325	741,000	906,725	865,588	3,401,686	845,282	1,616,267	3,947,981	1,550,017	4,321,800	2,177,994	5,725,607	5,719,028	5,908,082	4,700,985
Other Income	30,944	29,220	35,500	93,928	628	593	1,000	615	59,249	56,915	35,000	59,659	90,821	86,728	71,500	154,202
Total Operating Revenues	12,742,424	11,342,949	11,358,510	10,948,822	20,032,585	19,029,103	17,292,436	15,679,444	46,003,744	37,595,382	41,672,288	39,313,514	78,778,752	67,967,435	70,323,234	65,941,780
Operating Expenses:																
Personnel	3,289,603	2,383,805	3,127,169	2,402,145	1,760,954	1,130,381	1,464,464	1,340,615	11,561,494	12,145,543	10,869,860	11,387,931	16,612,051	15,659,728	15,461,493	15,130,692
General & Administrative	663,734	263,018	130,143	(4,664)	155,415	119,091	(36,072)	12,007	1,739,417	1,488,173	1,648,481	1,810,565	2,558,566	1,870,281	1,742,552	1,817,908
Utilities	543,917	461,746	616,038	432,898	449,485	369,199	481,172	374,031	2,154,519	1,878,480	2,199,029	2,083,543	3,147,920	2,709,425	3,296,239	2,890,473
Materials and Supplies	547,582	409,504	563,004	401,908	649,208	341,189	575,139	333,195	1,932,267	1,429,441	1,871,949	1,328,712	3,129,057	2,180,134	3,010,092	2,063,814
Miscellaneous Services	3,518,076	2,544,092	2,898,374	2,681,591	6,209,376	5,977,489	6,510,976	6,227,262	1,815,472	1,534,709	2,058,591	1,535,878	11,542,924	10,056,290	11,467,941	10,444,732
Treatment and Transportation	-	-	-	-	3,977,539	3,409,122	3,327,679	3,385,568	12,000	11,265	12,000	9,547	3,989,539	3,420,387	3,339,679	3,395,115
Depreciation and Amortization	2,605,699	2,644,500	2,750,000	2,602,179	4,616,783	4,667,252	4,603,000	4,571,072	5,893,862	5,880,000	5,880,000	5,835,507	13,116,343	13,191,752	13,233,000	13,008,758
Major Maintenance Expenses	3,400	3,400	3,400	-	1,000,000	1,000,000	1,000,000	-	2,652,924	1,287,924	2,782,916	1,250,412	3,656,324	2,291,324	3,786,316	1,250,412
Other Miscellaneous	74,864	72,684	-	113,254	46,422	45,070	32,288	43,757	13,972	13,565	-	9,373	135,258	131,318	32,288	166,384
Total Operating Expenses	11,246,875	8,782,748	10,088,128	8,629,311	18,865,181	17,058,793	17,958,646	16,287,508	27,775,926	25,669,100	27,322,826	25,251,468	57,887,982	51,510,641	55,369,600	50,168,287
Net Operating Profit	1,495,549	2,560,201	1,270,382	2,319,511	1,167,403	1,970,310	(666,210)	(608,064)	18,227,817	11,926,283	14,349,462	14,062,046	20,890,770	16,456,794	14,953,634	15,773,492
Non-Operating Income (Expense)																
Investment Earnings	94,327	89,072	160,000	179,193	190,471	179,859	200,000	332,846	172,960	166,148	900,000	1,193,617	457,758	435,079	1,260,000	1,705,656
Interest (Expense)	(1,406,328)	(1,436,287)	(1,508,789)	(1,545,029)	(181,995)	(195,887)	(803,082)	(213,115)	(17,535,086)	(16,578,837)	(19,356,023)	(19,386,584)	(19,123,409)	(18,211,011)	(21,667,894)	(21,144,727)
Capital Grant	-	-	-	1,716,419	-	-	-	15,000	-	-	-	-	-	-	-	1,731,419
Capital Assets Provided by Developers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net Non-Operating Income (Expense)	(1,312,001)	(1,347,215)	(1,348,789)	350,583	8,475	(16,028)	(603,082)	134,731	(17,362,126)	(16,412,689)	(18,456,023)	(18,192,967)	(18,665,651)	(17,775,932)	(20,407,894)	(17,707,652)
Net Income (Loss)	183,548	1,212,986	(78,407)	2,670,094	1,175,879	1,954,282	(1,269,292)	(473,333)	865,692	(4,486,406)	(4,106,561)	(4,130,921)	2,225,119	(1,319,138)	(5,454,260)	(1,934,160)
Net Position at Beginning of Year (As Restated)	102,323,527	101,110,541	98,700,480	98,440,447	101,343,621	99,389,339	97,345,970	99,862,672	(59,874,770)	(55,388,364)	(55,195,127)	(51,257,443)	143,792,378	145,111,516	140,851,323	147,045,676
Cumulative Effect of Change in Accounting principle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net Position at Beginning of Year	102,323,527	101,110,541	98,700,480	98,440,447	101,343,621	99,389,339	97,345,970	99,862,672	(59,874,770)	(55,388,364)	(55,195,127)	(51,257,443)	143,792,378	145,111,516	140,851,323	147,045,676
Net Position at End of Year	102,507,075	102,323,527	98,622,073	101,110,541	102,519,499	101,343,621	96,076,678	99,389,339	(59,009,078)	(59,874,770)	(59,301,688)	(55,388,364)	146,017,496	143,792,378	135,397,063	145,111,516
CAPITAL SPENDING																
Water	4,190,000	4,321,275	8,010,000	8,764,955	-	-	-	-	4,692,500	1,381,564	1,375,000	2,016,987	8,882,500	5,702,839	9,385,000	10,781,943
Wastewater	-	-	-	-	3,921,800	4,470,734	8,670,500	10,671,537	4,185,000	1,612,300	3,440,000	2,382,168	8,106,800	6,083,034	12,110,500	13,053,705
Total Capital Spending	4,190,000	4,321,275	8,010,000	8,764,955	3,921,800	4,470,734	8,670,500	10,671,537	8,877,500	2,993,864	4,815,000	4,399,156	16,989,300	11,785,873	21,495,500	23,835,648

LEHIGH COUNTY AUTHORITY
STATEMENTS OF NET POSITION
2021 Preliminary Budget and Comparative Prior Period Data (as of 10-12-20)

	Suburban Water				Suburban Wastewater				City Division				Total LCA			
	Budget 2021	Forecast 2020	Budget 2020	Actual 2019	Budget 2021	Forecast 2020	Budget 2020	Actual 2019	Budget 2021	Forecast 2020	Budget 2020	Actual 2019	Budget 2021	Forecast 2020	Budget 2020	Actual 2019
Current Assets:																
Cash and Cash Equivalents	3,210,679	6,700,850	9,701,644	9,242,611	11,987,747	9,665,920	24,669,763	7,057,187	19,808,346	15,744,799	9,918,160	12,660,402	35,006,772	32,111,568	44,289,567	28,960,200
Certificates of Deposit	3,136,930	3,136,930	1,785,733	3,136,930	7,757,276	7,757,276	-	7,757,276	-	-	-	-	10,894,206	10,894,206	1,785,733	10,894,206
Accounts Receivable:																
Customers (Net of Allowance)	1,760,403	1,760,403	1,652,884	1,760,403	3,188,238	3,188,238	4,118,091	3,188,238	6,542,331	6,542,331	6,606,583	6,542,331	11,490,972	11,490,972	12,377,558	11,490,972
Financing Contracts					323,767	323,767	316,797	323,767					323,767	323,767	316,797	323,767
Others	280,007	280,007	203,148	280,007	675,091	675,091	509,247	675,091	2,941,090	2,941,090	4,147,552	2,941,090	3,896,188	3,896,188	4,859,947	3,896,188
Due from (to) Other Funds	1,599,692	1,599,692	-	1,599,692	(1,570,176)	(1,570,176)	2,817,997	(1,570,176)	(29,516)	(29,516)	-	(29,516)	-	-	2,817,997	-
Inventory	36,074	36,074	16,190	36,074	-	-	-	-	56,425	56,425	100,851	56,425	36,074	36,074	16,190	36,074
Accrued Interest Receivable	6,411	6,411	14,724	6,411	39,898	39,898	23,832	39,898	414,562	414,562	374,996	414,562	102,734	102,734	139,407	102,734
Prepaid Expenses	185,993	185,993	198,131	185,993	131,300	131,300	123,026	131,300	-	-	-	-	731,855	731,855	696,153	731,855
Total Current Assets	10,216,189	13,706,360	13,572,454	16,248,121	22,533,141	20,211,314	32,578,753	17,602,581	29,733,238	25,669,691	21,148,142	22,585,294	62,482,568	59,587,364	67,299,349	56,435,996
Noncurrent Assets:																
Restricted:																
Restricted Cash and Cash Equivalents	2,532,181	2,532,181	203,046	2,532,181	337,932	337,932	337,562	337,932	9,114,754	9,114,754	9,807,084	9,114,754	11,984,867	11,984,867	10,347,692	11,984,867
Restricted for Debt Service	1,043,094	1,043,094	1,380,654	1,043,094	-	-	-	-	37,684,197	37,684,197	37,684,197	37,684,197	38,727,291	38,727,291	39,064,851	38,727,291
Restricted Certificates of Deposit	25,527	25,527	25,522	25,527	-	-	-	-	-	-	-	-	25,527	25,527	-	25,527
Investment U.S. Treasury Obligations	-	-	2,214,267	-	-	-	-	-	24,117,855	25,297,674	3,940,640	-	24,117,855	25,297,674	6,154,907	-
Developer Escrow Deposit	4,210,752	4,210,752	4,386,200	4,210,752	-	-	-	-	-	-	-	-	4,210,752	4,210,752	4,386,200	4,210,752
Total Restricted Assets	7,811,554	7,811,554	8,209,689	7,811,554	337,932	337,932	337,562	337,932	70,916,806	72,096,625	51,431,921	46,798,951	79,066,292	80,246,111	59,979,172	54,948,437
Capital Assets																
Non-depreciable Assets:																
Land	2,114,884	2,114,884	2,043,265	2,114,884	1,888,430	1,888,430	1,837,891	1,888,430	-	-	-	-	4,003,314	4,003,314	3,881,156	4,003,314
Construction in Progress	21,015,645	16,825,645	5,023,631	12,504,370	27,366,955	23,445,155	10,052,683	18,974,421	11,871,364	2,993,864	-	-	60,253,964	43,264,664	15,076,314	31,478,791
Total Capital Assets Not Being Depreciated	23,130,529	18,940,529	7,066,896	14,619,254	29,255,385	25,333,585	11,890,574	20,862,851	11,871,364	2,993,864	-	-	64,257,278	47,267,978	18,957,470	35,482,105
Depreciable Assets:																
Wells & Reservoirs	9,709,252	9,709,252	9,554,770	9,709,252	3,494,643	3,494,643	3,494,643	3,494,643	-	-	-	-	13,203,895	13,203,895	13,049,413	13,203,895
Transmission & Distribution Mains	80,498,411	80,498,411	78,963,688	80,498,411	-	-	-	-	-	-	-	-	80,498,411	80,498,411	78,963,688	80,498,411
Services & Hydrants	17,571,410	17,571,410	17,144,642	17,571,410	-	-	-	-	-	-	-	-	17,571,410	17,571,410	17,144,642	17,571,410
Interceptor & Collector Systems	-	-	-	-	38,259,619	38,259,619	38,036,405	38,259,619	-	-	-	-	38,259,619	38,259,619	38,036,405	38,259,619
Building Structure & Appurtenances	23,797,378	23,797,378	23,632,286	23,797,378	55,828,047	55,828,047	54,910,406	55,828,047	-	-	-	-	79,625,425	79,625,425	78,542,692	79,625,425
Metering System	10,672,043	10,672,043	10,539,291	10,672,043	429,778	429,778	429,777	429,778	-	-	-	-	11,101,821	11,101,821	10,969,068	11,101,821
Equipment and Furnishings	7,769,506	7,769,506	23,535,963	7,769,506	23,175,902	23,175,902	39,446,165	23,175,902	3,268,879	3,268,879	8,488,911	3,268,879	34,214,287	34,214,287	71,471,039	34,214,287
Capacity	1,207,901	1,207,901	1,207,901	1,207,901	953,831	953,831	2,062,956	953,831	-	-	-	-	2,161,732	2,161,732	3,270,857	2,161,732
Total Capital Assets Being Depreciated	151,225,901	151,225,901	164,578,541	151,225,901	122,141,820	122,141,820	138,380,352	122,141,820	3,268,879	3,268,879	8,488,911	3,268,879	276,636,600	276,636,600	311,447,804	276,636,600
Less accumulated depreciation																
Wells & Reservoirs	(3,365,888)	(3,365,888)	(3,365,888)	(3,365,888)	(603,220)	(603,220)	(603,220)	(603,220)	-	-	-	-	(3,969,108)	(3,969,108)	(3,969,108)	(3,969,108)
Transmission & Distribution Mains	(13,722,746)	(13,722,746)	(13,722,746)	(13,722,746)	-	-	-	-	-	-	-	-	(13,722,746)	(13,722,746)	(13,722,746)	(13,722,746)
Services & Hydrants	(4,580,883)	(4,580,883)	(4,580,883)	(4,580,883)	-	-	-	-	-	-	-	-	(4,580,883)	(4,580,883)	(4,580,883)	(4,580,883)
Interceptor & Collector Systems	-	-	-	-	(11,136,593)	(11,136,593)	(11,136,593)	(11,136,593)	-	-	-	-	(11,136,593)	(11,136,593)	(11,136,593)	(11,136,593)
Building Structure & Appurtenances	(9,294,442)	(9,294,442)	(9,294,442)	(9,294,442)	(20,126,163)	(20,126,163)	(20,126,163)	(20,126,163)	(8,762)	(8,762)	-	(8,762)	(29,429,367)	(29,429,367)	(29,420,605)	(29,429,367)
Metering System	(5,332,817)	(5,332,817)	(5,332,817)	(5,332,817)	(264,381)	(264,381)	(264,381)	(264,381)	-	-	-	-	(5,597,198)	(5,597,198)	(5,597,198)	(5,597,198)
Equipment and Furnishings	(11,257,659)	(8,651,960)	(8,928,793)	(6,007,460)	(29,360,103)	(24,743,320)	(24,765,358)	(20,076,068)	(3,065,282)	(2,737,920)	(8,453,447)	(2,424,420)	(43,683,043)	(36,133,200)	(42,147,598)	(28,507,948)
Capacity	(751,043)	(751,043)	(751,043)	(751,043)	-	-	-	-	-	-	-	-	(751,043)	(751,043)	(751,043)	(751,043)
Total Accumulated Depreciation	(48,305,478)	(45,699,779)	(45,976,612)	(43,055,279)	(61,490,460)	(56,873,677)	(56,895,715)	(52,206,425)	(3,074,044)	(2,746,682)	(8,453,447)	(2,433,182)	(112,869,982)	(105,320,138)	(111,325,774)	(97,694,886)
Total Capital Assets	126,050,953	124,466,651	125,668,825	122,789,876	89,906,745	90,601,728	93,375,211	90,798,246	12,066,198	3,516,061	35,464	835,697	228,023,896	218,584,440	219,079,500	214,423,819
Other Assets:																
Long-Term Portion of Receivables - Financing Contracts	-	-	-	-	1,532,516	1,532,516	1,856,283	1,532,516	-	-	-	-	1,532,516	1,532,516	1,856,283	1,532,516
Intangible Service Concession Arrangement	-	-	-	-	-	-	-	-	235,559,576	241,126,076	232,056,776	241,126,076	235,559,576	241,126,076	232,056,776	241,126,076
Less Accumulated Amortization	-	-	-	-	-	-	-	-	(5,566,500)	(5,566,500)	-	-	(5,566,500)	(5,566,500)	-	-
OPEB Asset	1,244,053	1,244,053	736,708	1,244,053	-	-	-	-	-	-	-	-	1,244,053	1,244,053	736,708	1,244,053
Other Assets	-	-	-	-	-	-	-	-	3,216,983	3,216,983	1,902,429	3,216,983	3,216,983	3,216,983	1,902,429	3,216,983
Facilities Planning Costs (Net of Accumulated Amortization)	24,442	24,442	24,749	24,442	58,589	58,589	102,827	58,589	-	-	-	-	83,031	83,031	127,576	83,031
Total Other Assets	1,268,495	1,268,495	761,457	1,268,495	1,591,105	1,591,105	1,959,110	1,591,105	233,210,059	238,776,559	233,959,205	244,343,059	236,069,659	241,636,159	236,679,772	247,202,659
Total Noncurrent Assets	135,131,002	133,546,700	134,639,971	131,869,925	91,835,782	92,530,765	95,671,883	92,727,283	316,193,063	314,389,245	285,426,590	291,977,707	543,159,847	540,466,710	515,738,444	516,574,915
Total Assets	145,347,190	147,253,060	148,212,425	148,118,046	114,368,924	112,742,079	128,250,636	110,329,864	345,926,301	340,058,935	306,574,732	314,563,001	605,642,415	600,054,074	583,037,793	573,010,911
Deferred Outflows of Resources																
Pensions	679,620	679,620	883,237	679,620	342,115	342,115	256,424	342,115	2,523,498	2,523,498	1,891,432	2,523,498	3,545,233	3,545,233	3,031,093	3,545,233
OPEB	56,117	56,117	-	56,117	-	-	-	-	662,093	662,093	-	662,093	718,210	718,210	-	718,210
Refunding Loss on Bonds	24,954	24,954	118,891	24,954	-	-	-	-	-	-	-	-	24,954	24,954	118,891	24,954
Total Deferred Outflows	760,691	760,691	1,002,128	760,691	342,115	342,115	256,424	342,115	3,185,591	3,185,591	1,891,432	3,185,591	4,288,397	4,288,397	3,149,984	4,288,397
Total Assets and Deferred Outflows of Resources	146,107,881	148,013,751	149,214,553	148,878,7												

LEHIGH COUNTY AUTHORITY
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	Suburban Water				Suburban Wastewater				City Division				Total LCA			
	Budget 2021	Forecast 2020	Budget 2020	Actual 2019	Budget 2021	Forecast 2020	Budget 2020	Actual 2019	Budget 2021	Forecast 2020	Budget 2020	Actual 2019	Budget 2021	Forecast 2020	Budget 2020	Actual 2019
Current Liabilities:																
Accounts Payable - Trade	1,381,509	1,378,109	1,048,854	1,374,709	4,819,043	3,819,043	2,434,731	2,819,043	2,828,820	2,285,896	2,098,809	997,972	9,029,372	7,483,048	5,582,394	5,191,724
Accounts Payable - Capital	246,336	246,336	70,921	246,336	312,403	312,403	150,835	312,403	2,010,714	10,714	149,529	10,714	2,569,453	569,453	371,285	569,453
Accrued Interest Payable	233,600	233,600	237,699	233,600	3,346	3,346	3,346	3,346	1,105,780	1,105,780	1,128,362	1,105,780	1,342,726	1,342,726	1,369,407	1,342,726
Notes Payable	257,775	253,032	243,612	248,378	443,723	434,775	420,205	427,162	-	-	-	-	701,498	687,807	664,017	675,540
Revenue Bonds Payable	1,889,764	1,839,786	1,473,132	1,832,994	118,358	114,259	65,572	114,905	1,661,079	2,461,487	1,230,893	1,837,406	3,669,201	4,415,532	2,769,597	3,785,305
Developer Deposits and Other	554,977	554,977	195,273	554,977	2,950	2,950	6,019	2,950	19,805	19,805	26,016	19,805	577,732	577,732	227,308	577,732
Accrued Payroll & Other	226,234	226,234	220,498	226,234	132,867	132,867	136,100	132,867	494,941	494,941	509,717	494,941	854,042	854,042	866,315	854,042
Total Current Liabilities	4,790,195	4,732,074	3,490,189	4,717,228	5,832,690	4,819,643	3,216,808	3,812,676	8,121,139	6,378,623	5,143,326	4,466,618	18,744,024	15,930,340	11,850,323	12,996,522
Noncurrent Liabilities:																
Developer Deposits and Other	4,210,752	4,210,752	4,974,553	4,210,752	19,064	19,064	-	19,064	10,000	10,000	-	10,000	4,239,816	4,239,816	4,974,553	4,239,816
Service Concession Arrangement Payable	-	-	-	-	-	-	-	-	49,168,997	48,227,748	46,842,091	47,694,490	49,168,997	48,227,748	46,842,091	47,694,490
Notes Payable	1,727,302	1,985,077	2,486,487	2,238,109	4,723,957	5,167,680	6,029,617	5,602,455	-	-	-	-	6,451,259	7,152,757	8,516,104	7,840,564
OPEB Liability	-	-	-	-	-	-	-	-	2,944,923	2,944,923	2,020,079	2,944,923	2,944,923	2,944,923	2,020,079	2,944,923
Net Pension Liability	956,221	956,221	336,866	956,221	481,353	481,353	351,481	481,353	3,550,538	3,550,538	1,250,814	3,550,538	4,988,112	4,988,112	1,939,161	4,988,112
Revenue Bonds Payable(Net of Premium/Discount)	31,797,039	33,686,803	38,943,024	35,526,599	1,134,475	1,252,833	22,832,476	1,367,092	344,325,374	342,007,464	311,169,773	314,470,387	377,256,888	376,947,100	372,945,273	351,364,068
Total Noncurrent Liabilities	38,691,314	40,838,853	46,740,930	42,931,671	6,358,849	6,920,930	29,213,574	7,469,964	399,999,832	396,740,673	361,282,757	368,670,338	445,049,995	444,500,456	437,237,261	419,071,973
Total Liabilities	43,481,509	45,570,927	50,231,119	47,648,899	12,191,539	11,740,573	32,430,382	11,282,640	408,120,971	403,119,296	366,426,083	373,136,956	463,794,019	460,430,796	449,087,584	432,068,495
Deferred Inflows of Resources																
Pensions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OPEB	119,297	119,297	361,361	119,297	-	-	-	-	-	-	1,341,769	-	119,297	119,297	1,703,130	119,297
Total Deferred Inflows	119,297	119,297	361,361	119,297	-	-	-	-	-	-	1,341,769	-	119,297	119,297	1,703,130	119,297
Net Position:																
Net Investment in Capital Assets	126,050,953	124,466,651	125,668,825	122,789,876	89,906,745	90,601,728	93,375,211	90,798,246	12,066,198	3,516,061	35,464	835,697	228,023,896	218,584,440	219,079,500	214,423,819
Restricted for Debt Service	1,043,094	1,043,094	1,380,654	1,043,094	-	-	-	-	37,684,197	37,684,197	37,684,197	37,684,197	38,727,291	38,727,291	39,064,851	38,727,291
Unrestricted	(24,586,971)	(23,186,218)	(28,427,406)	(22,722,429)	12,612,754	10,741,893	2,701,467	8,591,093	(108,759,474)	(101,075,028)	(97,021,349)	(83,908,258)	(120,733,691)	(113,519,353)	(122,747,288)	(108,039,594)
Total Net Position	102,507,075	102,323,527	98,622,073	101,110,541	102,519,500	101,343,621	96,076,678	99,389,339	(59,009,078)	(59,874,770)	(59,301,688)	(55,388,364)	146,017,497	143,792,377	135,397,063	145,111,516
Total Liabilities, Deferred Inflows of Resources and Net Position	146,107,881	148,013,751	149,214,553	148,878,737	114,711,039	113,084,194	128,507,060	110,671,979	349,111,892	343,244,526	308,466,164	317,748,592	609,930,812	604,342,471	586,187,777	577,299,308

Capital Spending

**2021 BUDGET
SUBURBAN DIVISION
WATER FUND
CAPITAL EXPENDITURES**

Project	Primary Project Category	Estimated Project Cost	Estimated Costs Through 2020	2021 Budget	Estimated Costs 2022 - 2026
<u>LCA Funded Projects</u>					
Annual Projects	AM - Varies	\$ 10,541,521	1,126,021	\$ 1,747,500	7,668,000
Water Main Replacement Projects	AM - Varies	\$ 9,600,000	-	-	9,600,000
<u>Other LCA Funded Projects</u>					
Upper Milford Central Div. Improvements - Buss Ac	AM-High	\$ 2,190,000	1,340,000	850,000	-
Additional (Redundant) Water Supply - Small Satellite Divisions	Sys Imp	\$ 715,000	265,000	100,000	350,000
CLD Auxiliary Pump Station & Main Extension	Sys Imp	\$ 1,700,000	1,700,000	-	-
Fixed Base Metering Reading System	Sys Imp	\$ 740,000	40,000	100,000	600,000
North Whitehall Division System Improvements - Study Phase	Sys Imp	\$ 100,000	-	50,000	50,000
Arcadia Water Tank Replacement	AM-High	\$ 1,107,000	107,000	500,000	500,000
Water Meter Reading Equipment Upgrade	AM-Med	\$ -	870,000	100,000	-
Central Lehigh to Upper Milford Division Interconnection - Kohler Tract	New Cust	\$ -	-	200,000	-
CLD Well Improvements - Study Phase	Sys Imp	\$ 40,000	30,000	60,000	40,000
CLD Distribution System Improvements	Sys Imp	\$ 1,530,000	480,000	50,000	1,000,000
		\$ -			
		\$ -			
Admin Allocation				432,500	
Total Suburban Division Water Capital Expenditures (Funded):			\$ 5,958,021	\$ 4,190,000	\$ 19,808,000

**2021 BUDGET
SUBURBAN DIVISION
WASTEWATER FUND
CAPITAL EXPENDITURES**

Project	Primary Project Category	Estimated Project Cost	Estimated Costs Through 2020	2021 Budget	Estimated Costs 2022 - 2026
OPERATING/CAPITAL RESERVE FUNDS					
<u>General:</u>					
Annual Projects	AM - Varies	\$ 3,106,145	\$ 483,145	\$ 622,500	\$ 2,000,500
Subtotal			483,145	622,500	2,000,500
<u>LCA Wastewater Treatment Plant</u>					
Pretreatment Plant Improvements	AM - Varies	4,200,000	-	700,000	3,500,000
Subtotal			-	700,000	3,500,000
<u>Western Lehigh Interceptor System:</u>					
Central Lehigh County WW Capacity Planning & Expansion	New Cust	3,219,300	620,000	799,300	1,800,000
Spring Creek Force Main A/V Valve Replacements	Sys Imp	95,000	25,000	40,000	30,000
Spring Creek Force Main Condition Assessment	AM-Med			-	300,000
Subtotal			645,000	839,300	2,130,000
<u>Satellite Systems</u>					
Wynnewood I/I Investigation and Remediation Program	Regulatory	200,000	25,000	25,000	150,000
Wynnewood Terrace WWTP Remediation & Replacement	AM - High	3,300,000	3,300,000	-	-
Arcadia West WWTP Mechanical Screen	Efficiency	325,000	-	-	325,000
SSES (Weisenberg, UMIT, Lowhill)	Regulatory	375,000	75,000	75,000	225,000
Sand Spring WWTP Remediation & Replacement	AM - High	4,100,000	3,600,000	500,000	-
Heidelberg Heights I/I Investigation and Remediation Program	Regulatory	1,300,000	300,000	300,000	700,000
Heidelberg Heights WWTP Rehabilitation	AM - Med	360,000	20,000	40,000	300,000
Lynn Township WWTP Improvements & Expansion	Sys Imp	300,000	-	50,000	250,000
Lynn Township I/I Investigation and Remediation Program	Regulatory	300,000	50,000	50,000	200,000
Subtotal			7,370,000	1,040,000	2,150,000
<u>Little Lehigh Relief Interceptor System:</u>					
Park Pump Station Force Main Rehabilitation	AM - High	1,300,000		100,000	1,200,000
Park Pump Station Rehabilitation/Improvements	AM - High	1,080,000	20,000	100,000	960,000
Regional Park Pump Station	Sys Imp	170,000	20,000	50,000	100,000
Subtotal			40,000	250,000	2,260,000
SUBTOTAL OPERATING/CAPITAL RESERVE FUNDS					
NEW BORROWING FUNDS					
<u>Western Lehigh Interceptor System:</u>					
Signatory I/I Investigation & Remediation Program	Regulatory	1,570,000	300,000	270,000	1,000,000
WLI-Trexlerstown Area Storage Facility	Regulatory	12,300,000	100,000	200,000	12,000,000
Subtotal			400,000	470,000	13,000,000
Total Suburban Wastewater Division Capital Expenditures (Funded):			\$ 8,938,145	\$ 3,921,800	\$ 25,040,500

**2021 BUDGET
CITY DIVISION
WATER FUND
CAPITAL EXPENDITURES**

Project	Primary Project Category	Estimated Project Cost	Estimated Costs Through 2020	2021 Budget	Estimated Costs 2022 - 2026
<u>LCA Funded Projects</u>					
Annual Projects	AM - Varies	10,822,500	-	1,590,000	9,232,500
Various Water System Related Studies	CA/OS	150,000	-	-	150,000
Sub-total Allentown Division Water Capital Funded by LCA		10,972,500	-	1,590,000	9,382,500
<u>CCRC Projects</u>					
Annual Water Main Replacements	AM - High	11,400,000	-	1,900,000	9,500,000
High Service Pump VFD Replacement Project	AM - High	2,000,000		800,000	1,200,000
Sub-total Allentown Division Water CCRC		13,400,000	-	2,700,000	10,700,000
<u>City Funded Projects</u>					
Ittron/AMR Meter Project ⁽¹⁾	CA/OS	85,000	-	85,000	-
Sub-total Allentown Division Water Capital Funded by the City			-	85,000	-
Administration Fund Capital Allocation				317,500	1,270,000
Total Allentown Division Water Capital Expenditures (Funded):			\$ -	\$ 4,692,500	\$ 10,652,500

(1) "Uncompleted Work" City Projects that were supposed to be complete by the time of settlement or executed by City personnel after settlement.
The City will fund these projects but has requested that LCA execute them.

**2021 BUDGET
CITY DIVISION
WASTEWATER SYSTEM
CAPITAL EXPENDITURES**

Project	Primary Project Category	Estimated Project Cost	Estimated Costs Through 2020	2021 Budget	Estimated Costs 2022 - 2026
<u>LCA Funded Projects</u>					
Annual Projects *	AM - High	9,460,000	-	1,960,000	7,500,000
Various Wastewater System Related Studies	CA/OS	150,000	-	-	150,000
			-	-	-
Sub-total Allentown Division Wastewater Capital Funded by LCA			\$ -	\$ 1,960,000	\$ 7,650,000
<u>CCRC Projects</u>					
Boiler Replacement and Solids Process HVAC Upgrade Project	AM - High	1,400,000	-	200,000	1,200,000
Sub-total Allentown Division Wastewater CCRC		\$ 1,400,000	\$ 200,000	\$ 1,200,000	
<u>City Funded Projects</u>					
Regional Flow Management Strategy ⁽¹⁾	Regulatory	3,145,000	-	775,000	1,580,000
Flow Characterization Study ⁽¹⁾	Regulatory	1,600,000	-	1,250,000	350,000
Sub-total Allentown Division Wastewater Capital Funded by the City			\$ -	\$ 2,025,000	\$ 1,930,000
Total Allentown Division Wastewater Capital Expenditures (Funded):			\$ -	\$ 4,185,000	\$ 9,580,000

* Includes Sodium Hypo project in 2021

(1) "Administrative Order" Projects as per the Agreement are to be Funded by the City and executed by LCA.

**2021 BUDGET
ADMINISTRATION
CAPITAL EXPENDITURES**

Project	Primary Project Category	Estimated Project Cost	Estimated Costs Through 2019	2021 Budget	Estimated Costs 2022 - 2026
<u>LCA Funded Projects</u>					
SCADA Programming, Hardware Upgrades, Software & Training	AM - Varies	178,000	28,000	150,000	-
Computer System Hardware & Software Upgrades	AM - High	142,000	42,000	100,000	-
GIS Upgrades & Application Development	Efficiency	81,960	31,960	50,000	-
Information Technology Master Plan Update	Planning	145,000	20,000	125,000	-
Document Management	Efficiency	200,000	-	200,000	-
Disaster Recovery/Security Upgrades	Efficiency	25,000	-	25,000	-
CMMS Upgrades	Efficiency	121,900	21,900	100,000	-
Sub-total Administration Capital Funded by LCA			\$ 143,860	\$ 750,000	\$ -
Total Administration Capital Expenditures (Funded):			\$ 143,860	\$ 750,000	\$ -

System Statements

LEHIGH COUNTY AUTHORITY
STATEMENTS OF ACTIVITIES - SUBURBAN - WATER FUND
2021 Preliminary Budget and Comparative Prior Period Data (as of 10-12-20)

	Suburban - Water Systems														Total			
	Int Serv 100	Undesignated 200	Western Lehigh Service Area			S. Lehigh	Northern Lehigh Service Area					Northampton		Budget 2021	Forecast 2020	Budget 2020	Actual 2019	
			Central Lehigh 201	Arcadia West 211	Emmaus 209	Beverly Hills 207	North Whiteha 202	Washington 203	Mill Creek 204	Heidelberg 205	PL of Lynn 206	Madison North 221	CFE 208					Buss Acres 210
Operating Revenues:																		
User Charges																		
Large Industrial		-	1,357,824	-	-	-	-	-	-	-	-	-	-	-	1,357,824	1,245,710	1,191,187	1,118,032
Other Industrial/Commercial		-	4,308,847	26,446	3,221	-	50,801	3,787	-	-	-	-	-	248	4,393,350	3,751,826	3,697,016	3,404,641
Residential		-	4,100,157	-	92,035	8,340	208,809	73,854	6,921	36,604	11,091	23,749	13,182	21,950	4,596,692	4,217,149	4,067,530	3,889,306
Penalties		-	24,035	242	247	20	373	372	22	135	32	82	35	31	25,627	23,511	96,138	103,807
Private Fire Service		-	722,542	211,210	-	-	5,061	1,633	-	-	-	-	-	-	940,447	862,795	881,402	846,199
Public Fire Service		-	420,155	-	-	-	19,215	9,219	-	-	-	-	-	-	448,588	411,549	436,903	378,629
User Charges - Municipal		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
User Charges - Residential & Commercial		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
User Charges - Hauler		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hauler Fees		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Industrial Charges		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Industrial Pretreatment Revenues		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Municipal		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Leachate Program Revenues		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Income		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Water Sales		-	7,788	-	-	-	-	-	-	-	-	-	-	-	7,788	7,145	75,000	51,553
Provision for Doubtful Debts		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(12,049)
Total Charges for Services	-	-	10,941,348	237,898	95,504	8,360	284,260	88,865	6,943	36,739	11,123	23,831	13,217	22,229	11,770,317	10,519,685	10,445,176	9,780,119
Rental Income		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	111,213	125,253
Miscellaneous		-	29,124	-	-	-	-	-	-	-	-	-	-	-	29,124	26,719	25,621	42,798
Total User Charges	-	-	10,970,472	237,898	95,504	8,360	284,260	88,865	6,943	36,739	11,123	23,831	13,217	22,229	11,799,441	10,546,404	10,582,010	9,948,169
Connection & System Charges																		
Supply/Tapping Fees		-	372,244	-	-	-	10,468	-	-	-	-	-	-	-	382,712	411,960	387,000	360,815
Capital Cost Recovery		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Distribution Tapping Fees		-	46,395	-	-	-	14,614	-	-	-	-	-	-	-	61,009	88,149	85,000	57,960
Meter Sales		-	95,339	-	-	-	5,405	-	-	-	-	-	-	-	100,744	55,361	108,000	94,763
Inspection & Review Fees		-	75,337	-	-	-	1,663	-	-	-	-	-	-	-	77,000	103,287	161,000	119,665
Developer Reimbursement		-	287,738	-	-	-	2,837	-	-	-	-	-	-	-	290,574	108,568	-	273,522
Total Connection & System Charges	-	-	877,052	-	-	-	34,987	-	-	-	-	-	-	-	912,039	767,325	741,000	906,725
Other Miscellaneous Revenues																		
Other Income		-	28,237	-	883	-	750	427	29	177	15	280	44	103	30,944	29,220	35,500	93,928
Total Other Miscellaneous Revenues	-	-	28,237	-	883	-	750	427	29	177	15	280	44	103	30,944	29,220	35,500	93,928
Total Operating Revenues	-	-	11,875,761	237,898	96,386	8,360	319,997	89,291	6,972	36,916	11,138	24,110	13,261	22,332	12,742,423	11,342,949	11,358,510	10,948,822
Operating Expenses:																		
Personnel																		
Salaries and Wages	658,245	-	910,116	29,604	12,732	16,505	73,137	13,187	15,474	29,881	22,548	16,411	17,617	28,805	1,844,261	1,460,145	1,783,421	1,568,044
Overtime	1,434	-	108,218	6,313	2,035	1,010	11,392	1,363	1,761	4,393	2,815	1,749	1,386	1,163	145,031	86,511	96,833	92,322
Taxes	52,991	-	78,621	2,760	1,160	1,388	6,562	1,156	1,363	2,682	2,002	1,433	1,516	2,404	156,038	117,282	144,062	124,429
Fringe Benefits	356,459	-	600,945	21,112	8,876	10,619	50,201	8,844	10,433	20,518	15,317	10,962	11,593	18,393	1,144,272	719,866	1,082,607	617,351
Other Personnel Related	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20,246	-
Total Personnel	1,069,128	-	1,697,900	59,790	24,802	29,522	141,293	24,550	29,032	57,473	42,681	30,554	32,112	50,765	3,289,603	2,383,805	3,127,169	2,402,145
Purchase of Services																		
General & Administrative	(1,095,178)	-	1,527,515	10,654	22,395	5,358	126,665	22,314	5,264	10,353	7,729	5,532	5,851	9,282	663,734	263,018	130,143	(4,664)
Utilities	19,849	-	420,418	17,754	234	5,768	28,450	1,530	6,268	16,086	4,969	7,623	7,839	7,129	543,917	461,746	616,038	432,898
Compliance	6,201	-	28,000	2,458	2,373	873	4,500	1,410	675	1,410	873	873	873	873	51,392	57,482	67,745	57,166
Contract Operating Svcs	-	-	2,520	2,240	-	1,850	10,400	-	2,240	7,640	2,240	2,240	2,600	4,300	38,270	54,460	38,270	53,784
Engineering	-	-	55,000	-	-	-	-	-	-	-	-	-	-	-	55,000	52,960	42,000	52,245
Extraordinary Expenditures	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exceptional Strength Analysis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fleet Management Services	-	-	28,000	-	-	-	-	-	-	-	-	-	-	-	28,000	59,426	24,500	23,937
General Analyses	-	-	40,000	4,000	900	2,600	5,000	1,000	700	5,800	2,400	3,000	2,160	5,076	72,636	35,591	83,856	21,403
Industrial Meter Testing	-	-	8,500	-	-	-	-	-	-	-	-	-	-	-	8,500	-	7,500	-
Maintenance Services	-	-	242,453	36,350	16,000	2,800	34,600	550	3,150	53,000	7,900	5,550	5,100	7,400	414,853	182,946	401,803	385,878
Miscellaneous Services	-	-	24,750	50	-	100	25	-	-	-	100	-	-	-	25,025	110,964	83,300	109,428
Rental	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Residuals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water Purchases	-	-	2,210,400	-	26,000	-	458,000	130,000	-	-	-	-	-	-	2,824,400	1,990,262	2,149,400	1,977,750
System Planning / Capital Management	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LCA WWTP Treatment/Removals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Treatment and Transportation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Purchase of Services	(1,069,128)	-	4,587,556	73,505	67,902	19,349	667,640	156,803	18,297	94,290	26,211	24,818	24,422	34,060	4,725,726	3,268,855	3,644,555	3,109,825

LEHIGH COUNTY AUTHORITY
 STATEMENTS OF ACTIVITIES - SUBURBAN - WATER FUND
 2021 Preliminary Budget and Comparative Prior Period Data (as of 10-12-20)

	Suburban - Water Systems													Total			
	Int Serv 100	Undesignated 200	Western Lehigh Service Area			S. Lehigh	Northern Lehigh Service Area						Northampton	Budget 2021	Forecast 2020	Budget 2020	Actual 2019
			Central Lehigh 201	Arcadia 211	West 209	Beverly Hills 207	North Whiteha 202	Washington 203	Mill Creek 204	Heidelberg 205	PL of Lynn 206	Wadison North 221	CFE 208				
Materials & Supplies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Purification Chemicals	-	-	45,000	3,300	-	200	900	-	300	800	200	200	200	58,400	38,899	59,600	38,611
Purification Supplies	-	-	27,000	2,200	-	1,800	2,100	3,800	4,200	2,500	3,447	3,100	1,800	56,047	36,043	60,000	35,487
Pump Supplies	-	-	21,500	5,050	-	1,400	4,500	-	150	6,300	-	2,500	2,950	46,000	46,176	37,900	45,610
Misc. Materials & Supplies	-	-	36,480	900	-	300	3,000	50	1,000	2,200	300	1,000	700	46,430	39,182	41,524	38,648
Fuel & Mileage	-	-	45,500	1,800	800	950	4,600	1,250	950	1,350	950	900	1,000	61,150	43,828	66,300	43,382
Fleet Management Supplies	-	-	3,800	-	-	-	-	-	-	-	-	-	-	3,800	5,018	2,500	2,036
Equipment	-	-	67,865	6,800	-	7,000	7,000	-	1,800	11,800	2,800	-	12,600	117,815	71,693	139,720	70,589
Leased Equipment	-	-	46,000	-	-	-	-	-	-	-	-	-	-	46,000	-	46,000	-
Distribution & Transmission Supplies	-	-	78,600	810	4,600	300	18,500	4,210	1,200	1,500	1,720	-	-	111,940	128,665	109,460	127,546
Collection System Supplies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Materials & Supplies	-	-	371,745	20,860	5,400	11,950	40,600	9,310	9,600	26,450	9,417	7,700	19,250	547,582	409,504	563,004	401,908
Depreciation and Amortization	-	-	2,605,699	-	-	-	-	-	-	-	-	-	-	2,605,699	2,644,500	2,750,000	2,602,179
Other Expenses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Major Maintenance Expenses	-	3,400	-	-	-	-	-	-	-	-	-	-	-	3,400	3,400	3,400	-
Other Miscellaneous	-	-	74,864	-	-	-	-	-	-	-	-	-	-	74,864	72,684	-	113,254
Total Other Expenses	-	3,400	74,864	-	-	-	-	-	-	-	-	-	-	78,264	76,084	3,400	113,254
Total Operating Expenses	-	3,400	9,337,765	154,155	98,104	60,822	849,533	190,663	56,928	178,213	78,310	63,073	75,785	11,246,874	8,782,748	10,088,128	8,629,311
Net Operating Profit (Loss)	-	(3,400)	2,537,996	83,744	(1,718)	(52,461)	(529,536)	(101,372)	(49,956)	(141,297)	(67,171)	(38,962)	(62,523)	1,495,549	2,560,201	1,270,382	2,319,511
Non-Operating Income (Expense)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Investment Earnings	-	72,039	22,288	-	-	-	-	-	-	-	-	-	-	94,327	89,072	160,000	179,193
Interest (Expense)	-	(13,616)	(1,388,787)	-	-	-	-	(3,925)	-	-	-	-	-	(1,406,328)	(1,436,287)	(1,508,789)	(1,545,029)
Capital Contributed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,716,419
Other Miscellaneous	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net Non-Operating Income (Expense)	-	58,423	(1,366,499)	-	-	-	-	(3,925)	-	-	-	-	-	(1,312,001)	(1,347,215)	(1,348,789)	350,583
Net Income (Loss)	-	55,023	1,171,497	83,744	(1,718)	(52,461)	(529,536)	(105,297)	(49,956)	(141,297)	(67,171)	(38,962)	(62,523)	183,548	1,212,986	(78,407)	2,670,094

LEHIGH COUNTY AUTHORITY
STATEMENTS OF ACTIVITIES - SUBURBAN - WATER FUND
2021 Preliminary Budget and Comparative Prior Period Data (as of 10-12-20)

Suburban - Water Systems														Total			
Int Serv	Undesignated	Western Lehigh Service Area			S. Lehigh	Northern Lehigh Service Area					Northampton			Budget	Forecast	Budget	Actual
100	200	Central Lehigh	Arcadia West	Emmaus	Beverly Hills	North Whiteha	Washington	Mill Creek	Heidelberg	PL of Lynn	Wadison North	CFE	Buss Acres	2021	2020	2020	2019
		201	211	209	207	202	203	204	205	206	221	208	210				
CAPITAL WATER RESERVE FUNDS																	
Annual Projects																	
Capital Management	-	50,000	-	-	-	-	-	-	-	-	-	-	-	50,000	14,305	50,000	24,287
Capital Works Misc Expense	-	7,500	-	-	-	-	-	-	-	-	-	-	-	7,500	974	7,500	1,622
Distribution Mains - Development	-	200,000	-	-	-	-	-	-	-	-	-	-	-	200,000	253,115	200,000	426,326
Distribution Mains - Upsizing	-	180,000	-	-	-	-	-	-	-	-	-	-	-	180,000	23,728	45,000	270,859
Distribution System Improvements (3rd Party)	-	5,000	-	-	-	-	-	-	-	-	-	-	-	5,000	-	5,000	-
General Water System Replacements	-	250,000	-	-	-	-	-	-	-	-	-	-	-	250,000	17,295	250,000	276,695
Main Office Improvements	-	180,000	-	-	-	-	-	-	-	-	-	-	-	180,000	-	180,000	-
Mobile Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	60,000	31,075
New & Replacement Meter Installations	-	50,000	-	-	-	-	-	-	-	-	-	-	-	50,000	24,704	50,000	42,605
Other Equipment	-	200,000	-	-	-	-	-	-	-	-	-	-	-	200,000	170,461	200,000	193,964
Reservoir Rehab/Maintenance	-	320,000	-	-	-	-	-	-	-	-	-	-	-	320,000	12,603	320,000	154,081
Water Company Acquisitions	-	5,000	-	-	-	-	-	-	-	-	-	-	-	5,000	-	5,000	-
Water Condition Facility Assessments/Upgrades	-	300,000	-	-	-	-	-	-	-	-	-	-	-	300,000	22,638	300,000	348,825
	-	1,747,500	-	-	-	-	-	-	-	-	-	-	-	1,747,500	539,824	1,672,500	1,770,338
Multi Year Projects																	
Additional (Redundant) Water Supply - Small Satellite Divisions	-	100,000	-	-	-	-	-	-	-	-	-	-	-	100,000	69,859	300,000	68,856
Arcadia Water Tank Replacement	-	-	-	500,000	-	-	-	-	-	-	-	-	-	500,000	41,614	100,000	-
AWIA ACT - 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	88	-	-
Central Lehigh to Upper Milford Division Interconnection - Koh	-	-	200,000	-	-	-	-	-	-	-	-	-	-	200,000	1,337,992	1,320,000	-
CLD Auxiliary Pump Station & Main Extension	-	-	-	-	-	-	-	-	-	-	-	-	-	-	88,303	200,000	1,437,085
CLD Distribution System Improvements	-	-	50,000	-	-	-	-	-	-	-	-	-	-	50,000	75,788	60,000	-
CLD Well Improvements - Study Phase	-	-	60,000	-	-	-	-	-	-	-	-	-	-	60,000	25,150	60,000	24,341
Fixed Base Metering Reading System	-	100,000	-	-	-	-	-	-	-	-	-	-	-	100,000	8,859	50,000	-
North Whitehall Division System Improvements - Study Phase	-	-	-	-	-	50,000	-	-	-	-	-	-	-	50,000	-	50,000	-
Residential Svc Conn & Water Svc Inquiry	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7,145	-	4,524
Upper Milford Central Div. Improvements - Buss Ac	-	-	-	-	-	-	-	-	-	-	-	-	850,000	850,000	698,909	2,300,000	101,897
Upper Sys Evalua / Lower Sys Model	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14,277	-	49,762
Water Main Replacement Projects	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,043,432
Water Meter Reading Equipment Upgrade	-	-	100,000	-	-	-	-	-	-	-	-	-	-	100,000	542,764	1,500,000	2,578,724
Watershed Monitoring	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,007	-	1,623
	-	200,000	410,000	500,000	-	50,000	-	-	-	-	-	-	850,000	2,010,000	2,911,755	5,940,000	6,310,244
Administrative Projects																	
Accounting Area Renovation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,266	-	26,379
CMMS Upgrades	-	57,667	-	-	-	-	-	-	-	-	-	-	-	57,667	4,265	53,000	97,426
Computer System Hardware & Software Upgrades	-	57,667	-	-	-	-	-	-	-	-	-	-	-	57,667	4,632	53,000	68,892
COVID 19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	716,060	-	-
Disaster Recovery/Security Upgrades	-	14,417	-	-	-	-	-	-	-	-	-	-	-	14,417	9,048	13,250	88,629
Document Management	-	115,333	-	-	-	-	-	-	-	-	-	-	-	115,333	13,086	106,000	5,863
GIS Upgrades & Application Development	-	28,833	-	-	-	-	-	-	-	-	-	-	-	28,833	22,652	26,500	94,323
Information Technology Master Plan Update	-	72,083	-	-	-	-	-	-	-	-	-	-	-	72,083	54,037	66,250	33,610
Operations Center Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9,116	-	154,775
SCADA Programming, Hardware Upgrades, Software & Trainin	-	86,500	-	-	-	-	-	-	-	-	-	-	-	86,500	35,535	79,500	114,478
	-	432,500	-	-	-	-	-	-	-	-	-	-	-	432,500	869,697	397,500	684,373
Total Capital Water Reserve Fund	-	2,380,000	410,000	500,000	-	50,000	-	-	-	-	-	-	850,000	4,190,000	4,321,275	8,010,000	8,764,955

LEHIGH COUNTY AUTHORITY
 STATEMENTS OF ACTIVITIES - SUBURBAN - WASTEWATER FUND
 2021 Preliminary Budget and Comparative Prior Period Data (as of 10-12-20)

	Suburban - Wastewater Systems															Total			
	Int Serv 100	WLI 312	LLRI 1 313	LLRI 2 314	Heidelberg 305	Upper Milford 315	Wynnewood 316	Weisenberg 317	Sand Spring 319	Lowhill Twp. 323	NLSA 318	Washington 303	Lynn Twp. 322	WWTP 320	Arcadia West 311	Budget 2021	Forecast 2020	Budget 2020	Actual 2019
Operating Revenues:																			
User Charges																			
Large Industrial		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Industrial/Commercial		-	-	-	-	-	-	-	-	-	-	-	-	-	49,962	-	49,962	29,365	40,000
Residential		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Penalties		155,954	-	-	2,089	6,741	1,782	952	48	195	-	(0)	11,300	7,428	2,686	-	189,176	173,556	261,950
Private Fire Service		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Public Fire Service		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
User Charges - Municipal		8,539,091	573,623	52,466	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
User Charges - Residential & Commercial		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
User Charges - Hauler		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hauler Fees		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Industrial Charges		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Industrial Pretreatment Revenues		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Municipal		35,058	-	-	-	20,854	-	1,097	-	-	-	-	-	945	-	-	57,954	86,947	130,100
Leachate Program Revenues		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Income		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10,066	1,009
Other Water Sales		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Provision for Doubtful Debts		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Charges for Services	-	8,730,103	573,623	52,466	81,028	411,229	154,057	63,667	96,054	14,842	-	0	364,183	8,189,207	392,088	-	19,122,546	15,579,443	16,445,982
Rental Income		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous		23,604	90	-	-	101	-	73	75	-	-	-	101	19,776	3	-	43,823	47,381	172
Total User Charges	-	8,753,707	573,713	52,466	81,028	411,330	154,057	63,740	96,129	14,842	-	0	364,283	8,208,982	392,091	-	19,166,369	15,626,824	16,446,154
Connection & System Charges																			
Supply/Tapping Fees		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Capital Cost Recovery		278,869	80,644	-	-	-	-	-	-	-	-	-	-	-	-	-	359,513	1,525,234	295,000
Distribution Tapping Fees		460,023	-	-	15,562	-	-	-	-	-	-	-	-	-	-	-	475,585	1,871,089	505,000
Meter Sales		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Inspection & Review Fees		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	857	45,282
Developer Reimbursement		-	-	-	-	28,361	-	265	784	-	-	-	1,080	-	-	-	30,489	4,507	-
Total Connection & System Charges	-	738,892	80,644	-	15,562	28,361	-	265	784	-	-	-	1,080	-	-	-	865,588	3,401,686	845,282
Other Miscellaneous Revenues		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Income	-	-	-	-	-	250	66	-	-	-	-	89	210	-	13	-	628	593	1,000
Total Other Miscellaneous Revenues	-	-	-	-	-	250	66	-	-	-	-	89	210	-	13	-	628	593	1,000
Total Operating Revenues	-	9,492,600	654,358	52,466	96,590	439,940	154,122	64,005	96,913	14,842	-	89	365,573	8,208,982	392,104	-	20,032,585	19,029,103	17,292,436
Operating Expenses:																			
Personnel																			
Salaries and Wages	323,524	143,616	61,585	6,677	58,650	53,191	48,712	4,331	36,299	1,423	-	4,385	84,555	26,180	53,470	-	906,600	640,256	876,544
Overtime	983	9,437	2,553	1,109	1,646	588	1,295	278	1,445	-	-	528	606	-	1,653	-	22,120	61,971	66,386
Taxes	24,453	11,925	5,050	572	4,763	4,271	3,973	357	2,965	113	-	407	6,734	2,062	4,361	-	72,005	60,492	66,479
Fringe Benefits	146,448	153,914	65,177	7,381	61,476	55,121	51,293	4,615	38,262	1,446	-	5,259	86,921	26,612	56,304	-	760,228	367,662	444,778
Other Personnel Related	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Personnel	495,408	318,892	134,365	15,740	126,534	113,171	105,274	9,581	78,970	2,981	-	10,579	178,816	54,854	115,788	-	1,760,954	1,130,381	1,464,464
Purchase of Services																			
General & Administrative	(511,536)	231,953	98,113	11,112	18,506	82,976	15,440	1,389	11,518	435	-	7,915	130,842	39,803	16,948	-	155,415	119,091	(36,072)
Utilities	15,503	111,216	203,488	116	11,747	544	32,292	96	15,037	-	-	214	31,612	-	27,620	-	449,485	369,199	481,172
Compliance	624	-	125	-	5,375	-	1,441	-	1,441	-	-	-	1,753	-	815	-	11,574	23,766	6,819
Contract Operating Svcs	-	-	-	-	9,000	-	15,000	-	12,200	-	-	-	-	5,389,877	-	-	5,426,077	5,552,783	5,725,909
Engineering	-	-	5,000	-	-	-	-	-	-	-	-	-	-	60,000	2,000	-	67,000	106,150	67,000
Extraordinary Expenditures	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exceptional Strength Analysis	-	43,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43,000	-	43,000
Fleet Management Services	-	16,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16,000	10,701	18,000
General Analyses	-	3,300	-	-	20,000	-	7,000	-	5,000	-	-	-	7,000	500	10,000	-	52,800	54,920	52,800
Industrial Meter Testing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maintenance Services	-	107,750	81,800	8,000	48,350	3,000	29,200	-	9,400	5,000	-	19,000	61,200	1,000	16,000	-	389,700	161,207	329,300
Miscellaneous Services	-	4,650	300	-	1,850	-	1,300	-	305	-	-	1,300	315	89,900	305	-	100,225	30,070	93,400
Rental	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Residuals	-	-	-	-	10,000	-	20,000	-	10,000	-	-	-	48,000	-	15,000	-	103,000	37,893	101,000
Water Purchases	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
System Planning / Capital Management	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LCA WWTP Treatment/Removals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Treatment and Transportation	-	3,687,295	-	-	-	251,355	-	31,282	-	7,607	-	-	-	-	-	-	3,977,539	3,409,122	3,327,679
Total Purchase of Services	(495,408)	4,205,164	388,826	19,228	124,828	337,876	121,673	32,767	64,901	13,042	-	28,428	280,721	5,581,080	88,688	-	10,791,815	9,874,901	10,283,755

LEHIGH COUNTY AUTHORITY
 STATEMENTS OF ACTIVITIES - SUBURBAN - WASTEWATER FUND
 2021 Preliminary Budget and Comparative Prior Period Data (as of 10-12-20)

	Suburban - Wastewater Systems															Total			
	Interceptor Group				CRCS						W.Weisenberg								
	Int Serv 100	WLI 312	LLRI 1 313	LLRI 2 314	Heidelberg 305	Upper Milford 315	Wynnewood 316	Weisenberg 317	Sand Spring 319	Lowhill Twp. 323	NLSA 318	Washington 303	Lynn Twp. 322	WWTP 320	Arcadia West 311	Budget 2021	Forecast 2020	Budget 2020	Actual 2019
Materials & Supplies																			
Purification Chemicals	-	-	-	-	8,800	-	9,200	-	15,200	-	-	-	39,900	-	13,800	86,900	59,950	88,650	59,472
Purification Supplies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pump Supplies	-	3,000	5,000	-	10,000	-	6,500	-	3,000	-	-	1,500	10,500	-	7,000	46,500	13,955	44,100	8,467
Misc. Materials & Supplies	-	36,728	5,200	1,500	24,300	2,300	7,750	2,200	6,500	2,000	-	1,400	16,600	6,500	17,300	130,278	52,874	121,209	52,361
Fuel & Mileage	-	10,000	3,000	350	1,500	650	3,200	350	2,600	150	-	500	3,600	43,250	1,000	70,150	19,739	27,000	19,538
Fleet Management Supplies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,130	1,500	1,114
Equipment	-	30,835	13,000	15,000	54,000	3,000	5,700	200	9,200	1,000	-	-	23,000	1,000	10,800	166,735	47,810	147,680	47,477
Leased Equipment	-	148,645	-	-	-	-	-	-	-	-	-	-	-	-	-	148,645	145,731	145,000	144,765
Distribution & Transmission Supplies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Collection System Supplies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Materials & Supplies	-	229,208	26,200	16,850	98,600	5,950	32,350	2,750	36,500	3,150	-	3,400	93,600	50,750	49,900	649,208	341,189	575,139	333,195
Depreciation and Amortization	-	578,562	65,511	54,788	21,011	90,073	24,697	10,188	3,412	-	-	-	122,884	3,508,976	136,680	4,616,783	4,667,252	4,603,000	4,571,072
Other Expenses																			
Major Maintenance Expenses	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000,000	-	1,000,000	1,000,000	1,000,000	-
Other Miscellaneous	-	27,102	4,814	704	-	1,040	-	-	-	-	-	502	11,204	1,056	-	46,422	45,070	32,288	43,757
Total Other Expenses	-	27,102	4,814	704	-	1,040	-	-	-	-	-	502	11,204	1,001,056	-	1,046,422	1,045,070	1,032,288	43,757
Total Operating Expenses	-	5,358,928	619,717	107,310	370,974	548,109	283,994	55,286	183,784	19,173	-	42,909	687,226	10,196,716	391,056	18,865,181	17,058,793	17,958,646	16,287,508
Net Operating Profit (Loss)	-	4,133,671	34,641	(54,844)	(274,384)	(108,169)	(129,872)	8,719	(86,871)	(4,330)	-	(42,820)	(321,652)	(1,987,734)	1,048	1,167,404	1,970,310	(666,210)	(608,064)
Non-Operating Income (Expense)																			
Investment Earnings	-	128,412	2,578	59,098	-	-	-	-	-	-	-	-	-	-	382	190,471	179,859	200,000	332,846
Interest (Expense)	-	(72,134)	-	-	(6,250)	-	(57,507)	-	(1,675)	-	-	(14,835)	-	-	(29,594)	(181,995)	(195,887)	(803,082)	(213,115)
Capital Contributed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15,000
Other Miscellaneous	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net Non-Operating Income (Expense)	-	56,278	2,578	59,098	(6,250)	-	(57,507)	-	(1,675)	-	-	(14,835)	-	-	(29,212)	8,475	(16,028)	(603,082)	134,731
Net Income (Loss)	-	4,189,949	37,219	4,254	(280,634)	(108,169)	(187,379)	8,719	(88,546)	(4,330)	-	(57,655)	(321,652)	(1,987,734)	(28,163)	1,175,879	1,954,282	(1,269,292)	(473,333)

LEHIGH COUNTY AUTHORITY
STATEMENTS OF ACTIVITIES - SUBURBAN - WASTEWATER FUND
2021 Preliminary Budget and Comparative Prior Period Data (as of 10-12-20)

	Suburban - Wastewater Systems															Total			
	Interceptor Group				CRCS						W.Weisenberg								
	Int Serv	WLI	LLRI 1	LLRI 2	Heidelberg	Upper Milford	Wynnewood	Weisenberg	Sand Spring	Lowhill Twp.	NLSA	Washington	Lynn Twp.	WWTP	Arcadia West	Budget	Forecast	Budget	Actual
	100	312	313	314	305	315	316	317	319	323	318	303	322	320	311	2021	2020	2020	2019
CAPITAL WASTEWATER RESERVE FUNDS																			
Annual Projects																			
General Sewer System Improvements*	-	-	-	-	-	-	-	-	-	-	-	-	-	200,000	-	200,000	-	-	192,434
LLRI Coll Sys Development & Svc Connections	-	-	5,000	-	-	-	-	-	-	-	-	-	-	-	-	5,000	-	-	-
Mobile Equipment	-	180,000	-	-	-	-	-	-	-	-	-	-	-	-	-	180,000	45,000	-	-
Other Equipment	-	200,000	-	-	-	-	-	-	-	-	-	-	-	-	-	200,000	25,590	200,000	232,735
Lynn Township Coll Sys Development & Svc Connections	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,000	-
Sewer Company Acquisitions	-	-	-	-	-	-	-	-	-	-	5,000	-	-	-	-	5,000	-	-	-
Upper Milford Coll Sys Development & Svc Connections	-	-	-	-	-	10,000	-	-	-	-	-	-	-	-	-	10,000	6,924	10,000	-
WLI Capital Management	-	7,500	-	-	-	-	-	-	-	-	-	-	-	-	-	7,500	8,528	7,500	11,049
WLI Coll Sys Development & Svc Connections	-	5,000	-	-	-	-	-	-	-	-	-	-	-	-	-	5,000	-	-	-
WLI High Flow Emergency Response	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,932	-	1,927,364
WW Facility Condition Assessments/Upgrades	-	-	-	-	-	-	-	-	-	-	-	-	-	10,000	-	10,000	-	100,000	-
	-	392,500	5,000	-	-	10,000	-	-	-	-	5,000	-	-	210,000	-	622,500	87,974	320,500	2,363,582
Multi Year Projects																			
537 CRB Tool	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26,527	-	-
Arcadia West WWTP Mechanical Screen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Central Lehigh County WW Capacity Planning & Expansion	-	799,300	-	-	-	-	-	-	-	-	-	-	-	-	-	799,300	127,546	620,000	51,606
Chestnut St Bridge Replacement	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8,846	-	3,120
Heidelberg Heights I/I Investigation and Remediation Program	-	-	-	-	300,000	-	-	-	-	-	-	-	-	-	-	300,000	25,077	275,000	385,822
Heidelberg Heights WWTP Rehabilitation	-	-	-	-	40,000	-	-	-	-	-	-	-	-	-	-	40,000	-	40,000	-
Hydraulic Model WLSP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34,055	-	-
Lynn Township I/I Investigation and Remediation Program	-	-	-	-	-	-	-	-	-	-	-	-	50,000	-	-	50,000	52,944	300,000	149,718
Lynn Township WWTP Improvements & Expansion	-	-	-	-	-	-	-	-	-	-	-	-	50,000	-	-	50,000	89	50,000	416
Park Pump Station Cond. Assesm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	885	-	-
Park Pump Station Force Main Rehabilitation	-	-	100,000	-	-	-	-	-	-	-	-	-	-	-	-	100,000	-	100,000	-
Park Pump Station Rehabilitation/Improvements	-	-	100,000	-	-	-	-	-	-	-	-	-	-	-	-	100,000	450,777	400,000	3,602,549
Plan Review & Inspection, Development & Svc Connections	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,196	-	22,619
Pretreatment Plant Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-	700,000	-	700,000	779,784	700,000	711,970
Regional Park Pump Station	-	-	50,000	-	-	-	-	-	-	-	-	-	-	-	-	50,000	-	-	-
Sand Spring WWTP Remediation & Replacement	-	-	-	-	-	-	-	-	500,000	-	-	-	-	-	-	500,000	1,368,403	3,600,000	161,090
Signatory I/I Investigation & Remediation Program	-	270,000	-	-	-	-	-	-	-	-	-	-	-	-	-	270,000	642,061	1,000,000	671,386
Spring Creek Force Main A/V Valve Replacements	-	40,000	-	-	-	-	-	-	-	-	-	-	-	-	-	40,000	9,321	40,000	25,494
Spring Creek Force Main Condition Assessment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring Creek PS Upgrade	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,475	-	97,796
SSES (Weisenberg, UMIT, Lowhill)	-	-	-	-	-	25,000	-	25,000	-	25,000	-	-	-	-	-	75,000	-	75,000	-
Strawberry Acres Sewer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	60	-	902
WLI-Trexlerstown Area Storage Facility	-	200,000	-	-	-	-	-	-	-	-	-	-	-	-	-	200,000	14,209	400,000	55,844
WTP Upgrade Study	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	153	-	-
Wynnewood I/I Investigation and Remediation Program	-	-	-	-	-	-	25,000	-	-	-	-	-	-	-	-	25,000	9,423	50,000	5,001
Wynnewood Terrace WWTP Remediation & Replacement	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	828,931	700,000	2,362,622
	-	1,309,300	250,000	-	340,000	25,000	25,000	25,000	500,000	25,000	-	-	100,000	700,000	-	3,299,300	4,382,760	8,350,000	8,307,955
Total Capital WasteWater Reserve Fund	-	1,701,800	255,000	-	340,000	35,000	25,000	25,000	500,000	25,000	5,000	-	100,000	910,000	-	3,921,800	4,470,734	8,670,500	10,671,537

LEHIGH COUNTY AUTHORITY
 STATEMENTS OF ACTIVITIES - CITY - DIVISION FUND
 2021 Preliminary Budget and Comparative Prior Period Data (as of 10-12-20)

	City Division							Total			
	Undesignated	Int Serv	WFP	DIST	WWTP	WWCOLL	LAB	Budget	Forecast	Budget	Actual
	400	490	491	492	493	494	495	2021	2020	2020	2019
Operating Revenues:											
User Charges											
Large Industrial	-	-	-	-	-	-	-	-	-	-	-
Other Industrial/Commercial	-	-	-	3,941,434	-	-	-	3,941,434	3,597,900	3,786,200	3,822,489
Residential	-	-	-	12,296,260	-	-	-	12,296,260	12,505,279	11,860,000	11,488,844
Penalties	-	-	-	101,545	-	191,906	-	293,452	281,894	456,782	510,752
Private Fire Service	-	-	-	78,130	-	-	-	78,130	55,652	75,053	59,377
Public Fire Service	-	-	-	-	-	-	-	-	-	1,000	585
User Charges - Municipal	-	-	-	-	-	6,538,225	-	6,538,225	6,320,851	6,419,939	6,559,055
User Charges - Residential & Commercial	-	-	-	-	-	13,449,887	-	13,449,887	9,102,181	9,302,597	9,270,882
User Charges - Hauler	-	-	-	-	54,132	-	-	54,132	78,765	76,647	90,380
Hauler Fees	-	-	-	-	-	-	-	-	-	-	-
Industrial Charges	-	-	-	-	-	-	-	-	-	-	-
Industrial Pretreatment Revenues	-	-	-	-	82,014	-	-	82,014	97,656	95,615	127,183
Municipal	-	-	-	-	-	28,260	12,204	40,464	63,378	75,000	133,226
Leachate Program Revenues	-	-	-	-	582,828	-	-	582,828	681,679	1,040,598	1,050,769
Other Income	-	-	-	-	-	-	-	-	-	-	4,193
Other Water Sales	-	-	-	4,290,523	-	-	-	4,290,523	2,979,663	3,669,946	3,779,627
Provision for Doubtful Debts	-	-	-	-	-	-	-	-	-	-	(239,800)
Total Charges for Services	-	-	-	20,707,893	718,974	20,208,278	12,204	41,647,349	35,764,897	36,859,377	36,657,562
Rental Income	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous	-	-	-	-	349,165	-	-	349,165	223,554	456,111	418,299
Total User Charges	-	-	-	20,707,893	1,068,139	20,208,278	12,204	41,996,514	35,988,451	37,315,488	37,075,861
Connection & System Charges											
Supply/Tapping Fees	-	-	-	22,342	-	-	-	22,342	3,579	18,500	21,462
Capital Cost Recovery	-	-	-	884,740	-	265,495	-	1,150,235	1,405,513	1,397,000	1,105,691
Distribution Tapping Fees	-	-	-	384,136	-	216,696	-	600,832	51,834	119,200	579,975
Meter Sales	-	-	-	23,387	-	-	-	23,387	39,787	292,000	22,466
Inspection & Review Fees	-	-	-	17,806	-	13,763	-	31,569	39,345	180,100	30,326
Developer Reimbursement	2,110,000	-	-	7,336	-	2,279	-	2,119,615	895,199	2,315,000	418,075
Total Connection & System Charges	2,110,000	-	-	1,339,748	-	498,233	-	3,947,981	2,435,257	4,321,800	2,177,994
Other Miscellaneous Revenues											
Other Income	-	-	-	48,026	-	-	11,222	59,249	56,915	35,000	59,659
Total Other Miscellaneous Revenues	-	-	-	48,026	-	-	11,222	59,249	56,915	35,000	59,659
Total Operating Revenues	2,110,000	-	-	22,095,667	1,068,139	20,706,511	23,427	46,003,744	38,480,623	41,672,288	39,313,514
Operating Expenses:											
Personnel											
Salaries and Wages	-	1,742,509	1,126,334	1,083,260	2,154,535	791,120	376,783	7,274,541	7,450,238	6,960,095	6,770,792
Overtime	-	9,366	284,511	124,254	400,266	46,975	10,688	876,060	718,269	653,671	690,010
Taxes	-	137,726	106,480	92,843	195,009	65,181	30,320	627,558	642,823	660,698	553,262
Fringe Benefits	-	688,402	455,400	397,072	834,019	278,766	129,676	2,783,335	3,334,212	2,509,645	3,373,868
Other Personnel Related	-	-	-	-	-	-	-	-	-	85,751	-
Total Personnel	-	2,578,004	1,972,725	1,697,428	3,583,829	1,182,041	547,467	11,561,494	12,145,543	10,869,860	11,387,931
Purchase of Services											
General & Administrative	-	(2,676,417)	960,179	837,199	1,757,284	587,759	273,413	1,739,417	1,488,173	1,648,481	1,810,565
Utilities	-	82,488	902,633	32,360	1,107,975	29,063	-	2,154,519	1,878,480	2,199,029	2,083,543
Compliance	-	15,925	-	-	-	-	18,598	34,523	-	-	-
Contract Operating Svcs	-	-	-	2,500	-	102,400	-	104,900	114,227	116,200	113,503
Engineering	-	-	15,500	-	16,000	-	-	31,500	67,802	31,500	67,162
Extraordinary Expenditures	-	-	5,000	25,000	-	-	-	30,000	-	30,000	15,176
Exceptional Strength Analysis	-	-	-	-	-	-	-	-	-	-	-
Fleet Management Services	-	-	5,000	50,000	55,000	40,000	-	150,000	187,795	157,000	186,521
General Analyses	-	-	-	-	18,000	-	29,285	47,285	15,934	37,000	15,905
Industrial Meter Testing	-	-	1,000	5,000	-	-	-	6,000	-	6,000	250
Maintenance Services	-	-	252,550	150,325	255,414	111,975	14,007	784,271	672,380	1,105,318	665,386
Miscellaneous Services	-	-	112,750	67,750	31,613	37,300	3,000	252,413	178,613	199,493	176,883
Rental	-	-	-	-	-	-	-	-	-	-	-
Residuals	-	-	30,000	-	344,580	-	-	374,580	297,804	374,580	295,039
Water Purchases	-	-	-	-	-	-	-	-	154	1,500	52
System Planning / Capital Management	-	-	-	-	-	-	-	-	-	-	-
LCA WWTP Treatment/Removals	-	-	-	-	-	-	-	-	-	-	-
Treatment and Transportation	-	-	-	-	-	12,000	-	12,000	11,265	12,000	9,547
Total Purchase of Services	-	(2,578,004)	2,284,611	1,170,134	3,585,866	920,497	338,303	5,721,407	4,912,627	5,918,101	5,439,534

LEHIGH COUNTY AUTHORITY
STATEMENTS OF ACTIVITIES - CITY - DIVISION FUND
2021 Preliminary Budget and Comparative Prior Period Data (as of 10-12-20)

	City Division							Total			
	Undesignated	Int Serv	WFP	DIST	WWTP	WWCOLL	LAB	Budget	Forecast	Budget	Actual
	400	490	491	492	493	494	495	2021	2020	2020	2019
Materials & Supplies											
Purification Chemicals	-	-	342,600	-	460,835	-	-	803,435	534,112	743,354	530,450
Purification Supplies	-	-	14,000	-	-	-	-	14,000	12,467	14,000	12,330
Pump Supplies	-	-	28,750	-	25,000	-	-	53,750	29,049	53,750	28,880
Misc. Materials & Supplies	-	-	71,500	25,680	264,700	103,400	42,800	508,080	396,364	533,955	392,703
Fuel & Mileage	-	-	7,000	29,000	46,500	29,000	-	111,500	100,401	112,250	99,347
Fleet Management Supplies	-	-	2,000	3,000	5,000	4,000	-	14,000	34,821	29,100	16,054
Equipment	-	-	77,100	18,740	62,300	17,800	(1,063)	174,877	152,676	190,840	151,176
Leased Equipment	-	-	-	-	69,313	86,313	-	155,625	71,201	88,500	-
Distribution & Transmission Supplies	-	-	-	97,000	-	-	-	97,000	98,350	106,200	97,771
Collection System Supplies	-	-	-	-	-	-	-	-	-	-	-
Total Materials & Supplies	-	-	542,950	173,420	933,648	240,513	41,737	1,932,267	1,429,441	1,871,949	1,328,712
Depreciation and Amortization	5,893,862	-	-	-	-	-	-	5,893,862	5,880,000	5,880,000	5,835,507
Other Expenses											
Major Maintenance Expenses	542,924	-	-	-	-	-	-	542,924	1,287,924	2,782,916	1,250,412
Other Miscellaneous	2,123,972	-	-	-	-	-	-	2,123,972	898,805	-	9,373
Total Other Expenses	2,666,896	-	-	-	-	-	-	2,666,896	2,186,729	2,782,916	1,259,785
Total Operating Expenses	8,560,758	-	4,800,286	3,040,983	8,103,342	2,343,050	927,507	27,775,927	26,554,340	27,322,826	25,251,468
Net Operating Profit (Loss)	(6,450,758)	-	(4,800,286)	19,054,684	(7,035,203)	18,363,461	(904,081)	18,227,817	11,926,283	14,349,462	14,062,046
Non-Operating Income (Expense)											
Investment Earnings	172,960	-	-	-	-	-	-	172,960	166,148	900,000	1,193,617
Interest (Expense)	(17,535,086)	-	-	-	-	-	-	(17,535,086)	(16,578,837)	(19,356,023)	(19,386,584)
Capital Contributed	-	-	-	-	-	-	-	-	-	-	-
Other Miscellaneous	-	-	-	-	-	-	-	-	-	-	-
Net Non-Operating Income (Expense)	(17,362,125)	-	-	-	-	-	-	(17,362,125)	(16,412,689)	(18,456,023)	(18,192,967)
Net Income (Loss)	(23,812,883)	-	(4,800,286)	19,054,684	(7,035,203)	18,363,461	(904,081)	865,692	(4,486,406)	(4,106,561)	(4,130,921)

LEHIGH COUNTY AUTHORITY
STATEMENTS OF ACTIVITIES - CITY - DIVISION FUND
2021 Preliminary Budget and Comparative Prior Period Data (as of 10-12-20)

	City Division							Total			
	Undesignated	Int Serv	WFP	DIST	WWTP	WWCOLL	LAB	Budget	Forecast	Budget	Actual
	400	490	491	492	493	494	495	2021	2020	2020	2019
CAPITAL WATER RESERVE FUNDS											
Annual Projects											
Capital Management	10,000	-	-	-	-	-	-	10,000	3,876	22,500	-
Distribution Mains - Development	-	-	-	-	-	-	-	-	11,887	-	30,035
Distribution Mains - Upsizing	-	-	-	-	-	-	-	-	-	-	-
Indenture Report Upgrades	250,000	-	-	-	-	-	-	250,000	-	-	-
Mobile Equipment	-	-	-	-	-	-	-	-	-	-	95,925
New & Replacements Meter Installations	50,000	-	-	-	-	-	-	50,000	55,486	50,000	81,982
Other Equipment	200,000	-	-	-	-	-	-	200,000	114,514	100,000	76,601
PennDOT relocations	80,000	-	-	-	-	-	-	80,000	-	-	-
Reservoir Rehab/Maintenance	-	-	-	-	-	-	-	-	-	-	-
WFP General Improvements	500,000	-	-	-	-	-	-	500,000	478	500,000	-
WFP General System Replacements	-	-	-	500,000	-	-	-	500,000	40,160	300,000	225,070
	1,090,000	-	-	500,000	-	-	-	1,590,000	226,402	972,500	509,612
Multi Year Projects											
Annual Water Main Replacements	-	-	-	1,900,000	-	-	-	1,900,000	1,270	-	647,515
Cedar Creek Bridge Replacement	-	-	-	-	-	-	-	-	10,887	-	18,034
Collection System - Development & Service Connection	-	-	-	-	-	-	-	-	89	-	949
Distribution System Improvements	-	-	-	-	-	-	-	-	595,054	-	606,351
EPA AWIA Act 2020	-	-	-	-	-	-	-	-	33,837	-	31,285
Huck Ridge Main Break	-	-	-	-	-	-	-	-	140,659	-	-
High Service Pump VFD Replacement Project	-	-	-	800,000	-	-	-	800,000	-	-	-
Iron/AMR Meter Project (1)	-	-	-	85,000	-	-	-	85,000	237	85,000	1,951
Low Lift Painting	-	-	-	-	-	-	-	-	109,209	-	21,255
Misc Facility Permit	-	-	-	-	-	-	-	-	346	-	11,313
N 17th Main Replacement	-	-	-	-	-	-	-	-	118,452	-	-
Schantz Spring Exposed	-	-	-	-	-	-	-	-	-	-	10,714
SR 145 Bridge Project	-	-	-	-	-	-	-	-	142	-	392
Various Water System Related Studies	-	-	-	-	-	-	-	-	-	-	144
Water Capital Mgmt/WFP Master Plan	-	-	-	-	-	-	-	-	-	-	13,985
	-	-	-	2,785,000	-	-	-	2,785,000	1,010,182	85,000	1,363,886
Administrative Projects											
CMMS Upgrades	42,333	-	-	-	-	-	-	42,333	-	42,333	-
Computer System Hardware & Software Upgrades	42,333	-	-	-	-	-	-	42,333	-	42,333	61
Disaster Recovery/Security Upgrades	10,583	-	-	-	-	-	-	10,583	-	10,583	-
Document Management	84,667	-	-	-	-	-	-	84,667	-	84,667	-
GIS Upgrades & Application Development	21,167	-	-	-	-	-	-	21,167	-	21,167	-
Information Technology Master Plan Update	52,917	-	-	-	-	-	-	52,917	-	52,917	-
SCADA Programming, Hardware Upgrades, Software & Training	63,500	-	-	-	-	-	-	63,500	144,980	63,500	143,429
	317,500	-	-	-	-	-	-	317,500	144,980	317,500	143,489
Total Capital Water Reserve Fund	1,407,500	-	-	3,285,000	-	-	-	4,692,500	1,381,564	1,375,000	2,016,987
CAPITAL WASTEWATER RESERVE FUNDS											
Annual Projects											
2020 SBM Data Capture	-	-	-	-	-	-	-	-	8,187	-	-
Capital Management	10,000	-	-	-	-	-	-	10,000	1,798	10,000	10,524
Collection System - Development	-	-	-	-	-	-	-	-	35,481	-	12,854
Indenture Report Upgrades	500,000	-	-	-	-	-	-	500,000	-	-	-
Mobile Equipment	-	-	-	-	-	-	-	-	-	-	128,113
Other Equipment	350,000	-	-	-	-	-	-	350,000	246,490	300,000	344,395
PennDOT relocations	200,000	-	-	-	-	-	-	200,000	-	-	118
Roof Replacements	-	-	-	-	-	-	-	-	-	-	118
Sanitary Sewer Main Replacements & Rehab	100,000	-	-	-	-	-	-	100,000	39,176	100,000	59,839
Various Wastewater System Related Studies	-	-	-	-	-	-	-	-	6,193	-	1,041
WWTP Clarifier Mech	-	-	-	-	-	-	-	-	-	-	1,815
WWTP General Improvements	800,000	-	-	-	-	-	-	800,000	209,927	800,000	152,339
	1,960,000	-	-	-	-	-	-	1,960,000	547,254	1,210,000	711,037
Multi Year Projects											
Boiler Replacement and Solids Process HVAC Upgrade Project	200,000	-	-	-	-	-	-	200,000	-	-	-
Elec Substation	-	-	-	-	-	-	-	-	311	-	1,337,787
Flow Characterization Study (2)	-	-	-	-	1,250,000	-	-	1,250,000	-	1,500,000	-
I&I Source Reduction	-	-	-	-	-	-	-	-	-	-	185,903
KIWWTP Interim 537	-	-	-	-	-	-	-	-	118,739	-	14,186
KIWWTP Master Plan	-	-	-	-	-	-	-	-	-	-	21,376
KIWWTP Max Month Study	-	-	-	-	-	-	-	-	1,101	-	34,888
KIWWTP Peak Flow Study	-	-	-	-	-	-	-	-	57,334	-	-
Regional Flow Management Strategy (2)	-	-	-	-	775,000	-	-	775,000	885,004	730,000	-
SR 145 Bridge Project	-	-	-	-	-	-	-	-	2,557	-	76,992
	200,000	-	-	-	2,025,000	-	-	2,225,000	1,065,045	2,230,000	1,671,131
Total Capital WasteWater Reserve Fund	2,160,000	-	-	-	2,025,000	-	-	4,185,000	1,612,300	3,440,000	2,382,168
TOTAL CAPITAL EXPENSES:	3,567,500	-	-	3,285,000	2,025,000	-	-	8,877,500	2,993,864	4,815,000	4,399,156

(1) "Uncompleted Work" City Projects that were supposed to be complete by the time of settlement or executed by City personnel after settlement.
The City will fund these projects but has requested that LCA execute them.

(2) "Administrative Order" Projects as per the Agreement are to be Funded by the City and executed by LCA.

Note: Annual Water Projects Includes Sodium Hypo project in 2021

Internal Services

LEHIGH COUNTY AUTHORITY
INTERVAL SERVICES CONSOLIDATED
2021 Preliminary Budget and Comparative Prior Period Data (as of 10-12-20)

OPERATING FUNDS	Operational Support						2021 TOTAL	BUDGET 2020	Variance
	Undesignated	Executive	Planning	Finance	Information Technology	Cust Care & Billing			
Operating Expenses:									
Personnel									
Salaries and Wages	-	366,438	144,051	661,303	673,907	1,027,383	2,873,082	2,593,925	(279,157)
Overtime	-	-	-	-	-	5,441	5,441	8,280	2,839
Taxes	-	28,817	11,437	51,716	52,046	80,965	224,981	198,853	(26,128)
Fringe Benefits	-	347,181	79,242	203,168	269,605	461,874	1,361,070	1,158,192	(202,878)
Other Personnel Related	-	-	-	-	-	-	-	-	-
Total Personnel	-	742,436	234,729	916,188	995,558	1,575,663	4,464,574	3,959,250	(505,324)
Other Expenses									
General & Administrative:								-	-
Temporary Contract Service	-	-	-	-	-	-	-	-	-
Office Related	-	43,884	43,884	43,884	43,884	43,884	219,421	219,386	(35)
Computer Software / Hardware	-	-	-	-	424,655	-	424,655	318,505	(106,150)
Advertising	-	1,116	-	-	-	-	1,116	2,750	1,634
Audit	-	-	-	53,040	-	-	53,040	52,000	(1,040)
Bank and Credit Card Fees	-	-	-	188,723	-	-	188,723	175,820	(12,903)
Dues and Subscriptions	-	7,216	7,216	7,216	7,216	7,216	36,082	36,000	(82)
Travel and Entertainment	-	983	983	983	983	983	4,915	4,000	(915)
Education & Training	-	59,975	6,750	6,790	21,600	8,925	104,040	83,255	(20,785)
Insurance & Risk Management	-	925,548	-	-	-	-	925,548	831,058	(94,490)
Human Resources and Related	-	110,850	-	-	-	-	110,850	47,000	(63,850)
Professional Consulting & Legal	-	180,067	-	-	-	-	180,067	275,430	95,363
Public Relations	-	-	-	-	-	149,449	149,449	194,704	45,255
Contributions & Sponsorships	-	46	46	46	46	46	230	3,000	2,771
Total Other Expenses	-	1,329,686	58,879	300,683	498,384	215,303	2,402,936	2,247,708	(155,228)
Total Operating Expenses	-	2,072,121	293,608	1,216,870	1,493,943	1,790,967	6,867,510	6,206,958	(660,552)
									-10.6%
Operations Education & Training							96,705	85,000	(11,705)
Total Education & Training							200,745	168,255	(32,490)



LEHIGH COUNTY AUTHORITY

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email: service@lehighcountyauthority.org

MEMORANDUM

Date: October 7, 2020

To: Board of Directors & Management Staff

From: Jennifer Montero

Re: Proposed 2021 WLI, LLRI-Phase 1 and LLRI-Phase 2
Wastewater User Charges

Attached is a copy of the "2021 Report on Wastewater User Charges". This is the annual report that explains the derivation of the various billing rates that are charged to the users of the Western Lehigh Interceptor, Little Lehigh Relief Interceptor Phase 1, and Little Lehigh Relief Interceptor Phase 2.

As you will read in the Executive Summary on page 3, **costs to an average residential user associated with the use of the WLI, LLRI-I and LLRI-2 are predicted to increase overall by 4%.** The increase in WLI rates is primarily due to increased costs allocated to the BOD and TSS rates. The increase in the LLRI-I rates reflects an increase in operating costs and a level amount of reserves earmarked for the Park Pump Station Force Main project. The increase in the LLRI-II rate is due to a significant increase in operating and maintenance costs from those budgeted in 2020.

LCA has implemented estimated quarterly billing procedures effective January 2009. Estimating the quarterly bills have provided consistent Signatory payments and has resulted in having payments approximately one month prior to remitting LCA payment for to the City Division. The estimates are based on a prior four quarter average and projected growth and are being reviewed by the respective Signatory. The four quarterly estimated bills are reconciled the following year.

We request that the Board give preliminary approval of the rates.

LEHIGH COUNTY AUTHORITY

2021 REPORT ON WASTEWATER USER CHARGES

September 30, 2020

Revised October 7, 2020

LEHIGH COUNTY AUTHORITY

2021 REPORT ON WASTEWATER USER CHARGES

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EXECUTIVE SUMMARY

This summary provides an overview of the various assumptions included in the Lehigh County Authority (LCA) "2021 Report on Wastewater User Charges." Further detailed information can be found in the report.

1. Waste Strength

The assumed concentration for all Non-Exceptional Strength users will be 250 ppm for BOD, 275 ppm for TSS, and 35 ppm for TKN. Exceptional Strength Limits will be 300 ppm for BOD, 360 ppm for TSS, and 85 ppm for TKN.

The estimated concentration for LCA's Western Lehigh Interceptor signatory discharge to the Kline's Island Wastewater Treatment Plant is 121 ppm for BOD, 125 ppm for TSS, and 31 ppm for TKN which are net values without Emmaus discharges. These strengths are based on the continuation of the LCA Wastewater Treatment Plant (PTP) in Fogelsville reducing all waste strength that passes through it and with brewing operations at Boston Beer.

2. Payments to the LCA Wastewater Pretreatment Plant (PTP)

Credits will be given to the PTP, at City unit rates, for pounds of BOD and TSS removed by the operation of the PTP in excess of the required removal of certain industrial strengths. These credits are as detailed in the 4/17/91 Amendment to the 4/1/83 Agreement between LCA, the LCA Signatories, and the County.

3. User Rates

The following rates are proposed for 2021 as shown in comparison to the budgeted 2020 rates and represent an increase of 4% from the 2020 rates for a typical residential customer.

	<u>2020 Approved</u>	<u>2021 Proposed</u>
<u>LCA SIGNATORIES</u>		
Western Lehigh Interceptor		
FLOW (per 1,000 gals)	0.98	0.91
BOD (per pound)	0.31	0.36
TSS (per pound)	0.29	0.29
TKN (per pound)	0.41	0.47
ALLOCATION (per 1,000 gals per day	0.21	0.22
Little Lehigh Relief Interceptor		
PHASE 1 (per 1,000 gals)	0.19	0.23
PHASE 2 (per 1,000 gals)	0.003	0.02
<u>EMMAUS</u>		
Western Lehigh Interceptor	0.38	0.38
FLOW (per 1,000 gals)		
<u>OTHER USERS</u> – L. Macungie, Salisbury, & S. Whitehall - Little Lehigh Relief Interceptor – Phase 1		
FLOW (per 1,000 gals)	0.14	0.21

3. User Rates (continued)

NOTES:

Western Lehigh Interceptor: LCA has elected to use a combination of operating funds and capital recovery fees collected from new connections to pay certain administrative order (AO) capital projects such as the Signatory I&I Investigation and Remediation Program. Sixty percent of the costs will be recovered through user charges over a 10-20 year period and are noted as amortized planning and flow monitoring in the WLI operating and maintenance cost table on page 14. Capital recovery fees will cover 40% of the costs.

Little Lehigh Relief Interceptor – PHASE 1: The rate for 2021 will increase by 53% from the 2020 rate for non-LCA signatory users. This reflects a 35% increase in the operating and maintenance costs but no increase in reserves for future capital projects over the previous year. The future reserves will be earmarked for the Park Pump Station Force Main Upgrade. In addition, the non-LCA signatory users are being charged an extra component in their rate for the Park Pump Station Rehabilitation project. This is due to the LCA signatory portion of the project being partially paid for by funds available to them via reserves paid from WLI rates and capital recovery fees. LCA signatory users will see a 21% increase in its LLRI-Phase due to the same operating and maintenance cost increase.

Little Lehigh Relief Interceptor – PHASE 2: The rate for 2021 will increase from the 2020 rate of .003/1,000 gallon to \$.02/1,000 gallons and reflects an increase in the budgeted operating and maintenance costs.

4. User Payments

Quarterly Estimated Payments: To improve the WLI operating fund cash flow, Signatories receive a quarterly bill that contains estimated flows and loads. Estimating the quarterly bills provides consistent Signatory payments and results in having payments arriving prior to LCA's payment to the City (City Division) for treatment and transportation costs. Submission of the actual Signatory flow and load data is still required for annual reconciliation of the rates but the timing of the submission is no longer as critical. The estimated quarterly billing procedure is described and attached to this report, "Estimated Quarterly Bill Procedures" as Appendix B.

I. INTRODUCTION

This report is intended to demonstrate how the user rates for 2021 were developed. It also reports comparative historical data. The Lehigh County Authority (LCA) Wastewater facilities – the Western Lehigh Interceptor (WLI), and the Little Lehigh Relief Interceptor, Phases 1 and 2 (LLRI-P1 and LLRI-P2) are legally and financially independent of each other.

Background – WLI

In 1971, LCA constructed the WLI to serve four municipalities – Upper and Lower Macungie Townships and the Boroughs of Alburtis and Macungie. Since then, Upper Milford, Lowhill and Weisenberg Townships have been added. Collectively, the municipalities are referred to as the “Signatories” (or “Signatory”). LCA also provides transportation service through the WLI to a portion of the Borough of Emmaus (“Emmaus”).

LCA, serving as agent for the Signatories, contracts with the City of Allentown (City) for the transportation, treatment and disposal of wastewater from the Signatory area (see “City of Allentown – Concession Lease” on page 6). Discharges to the City are based on constant flow measurements and periodic sampling and analyses to determine discharge strength.

The WLI consists of 20.6 miles of gravity sewer line and several parallel relief lines, including the Western Lehigh Relief Facilities (WLRF – a pump station and 3 miles of force main) that were completed during 1998 and the Spring Creek Force Main Extension (5 miles of force main) completed in 2005. In 2010, the 3 million gallon Flow Equalization Basin was constructed at the PTP to be utilized in storing wet weather flows to reduce the risk of sanitary sewer overflows within the WLI system.

Background – LLRI

Under the provisions of agreements with the City, all municipalities are required to construct relief facilities whenever jointly-used City-owned sewer lines become overloaded. In 1973, the City notified the Signatories, Salisbury Township (Salisbury) and South Whitehall Township (South Whitehall) that the City-owned Little Lehigh Interceptor required relief.

Under an agreement dated February 10, 1981, LCA was authorized to plan and construct the required facilities. The agreement contemplated two financially independent sets of facilities. The first, known as Phase 1, relieves the City’s Little Lehigh Interceptor and serves the Signatories, Salisbury and South Whitehall. It consists of the Park Pump Station and a large diameter force main, extending from the Park Pump Station to the Allentown Interceptor, just upstream of the City treatment plant. The second, known as Phase 2, relieves the City’s Emmaus Interceptor from Keck’s Bridge to the Park Pump Station and serves the Signatories.

Existing Billing Practices – WLI

Costs attributable to the WLI and the use of the City facilities are allocated through user rates among the Signatories based on three criteria: (1) flow, (2) strength, and (3) treatment allocation. Costs attributable to the operation of the WLI (excluding Exceptional Strength Analyses costs), the City interceptors, and a portion of the City treatment plant operational costs are allocated based on flow. The balance of the City treatment plant operational, LCA PTP excess removal credits, and the WLI Exceptional Strength Analyses costs are allocated to the three waste strength parameters of BOD, TSS and TKN. Allocation of the City costs are based on the City's user charge system, developed in 1979. All City and LCA debt service costs are allocated based on wastewater treatment allocations to the Signatories.

Emmaus, because it deals directly with the City for its treatment and transportation needs and because it has made a capital contribution in lieu of paying future debt service, pays user charges based only on WLI operating costs.

Billing practices used herein were established in the April 1, 1983 Service Agreement. Billable flows and strengths to each Signatory are based on a summation of the individual customer discharges within each Signatory service area. Inflow and infiltration (I/I) attributable to the WLI service area is shared proportionately by all Signatories.

Existing Billing Practices – LLRI

Costs attributable to LLRI-P1 are allocated among the Signatories, Salisbury and South Whitehall in proportion to metered wastewater flows tributary to the City's Little Lehigh Interceptor, except that South Whitehall flows are reduced by 500,000 gallons per day (gpd,) based on a City commitment to transmit that wastewater on South Whitehall's behalf.

Costs attributable to LLRI-P2 are allocated among only the Signatories based on billable wastewater flow. The Authority has established a rate per 1,000 gallons to cover expected expenses. Therefore, a rate of \$0.02 will be applied to the Signatory billing.

City of Allentown – Concession Lease

In August 2013, LCA assumed responsibility for the operation of the City of Allentown water and wastewater systems (City System), now referred to as the LCA Allentown Division. As part of this 50-year lease, LCA is now responsible for calculating annual In-City user and Municipal Signatory user wastewater rates and billing City Municipal Signatories for wastewater usage. The 2021 rates have been calculated according to Municipal Service Agreements. City Municipal Signatories will remain responsible for their share of the previously existing City Debt Service plus additional amounts for ongoing capital improvements. The City System is legally and financially independent of the LCA-owned systems.

II. BILLING BASIS DETERMINATION

Discharge from each residential, commercial or industrial user is estimated and summed within each Signatory service area.

Flow Determination

Flows are determined based on one of the following methods. Where a sewer meter is available, periodic readings are used. If a sewer meter is not available, periodic readings of the water meter are used for commercial and industrial customers. For residential users receiving water service as of 1 January, the first quarter's metered water usage is used. For residential users connecting after 1 January, or for users not having a water meter, 220 gpd is used.

Strength Determination

Assumed Average Strength and Exceptional Strength Limits proposed for 2021 are:

Discharge Type	Parameter	
	Assumed Average Strength	Exceptional Strength
BOD	250 ppm	300 ppm
TSS	275 ppm	360 ppm
TKN	35 ppm	85 ppm

As in previous years, all industrial and certain commercial users with greater than 25,000 gallons per billing period will be sampled and tested at least once per year in order to determine the strength of their discharge. Any user with BOD, TSS or TKN discharge in excess of the Exceptional Strength Limit will be billed based on those test results. All users with discharge below the Exceptional Strength Limit will be billed at the Average Strength level.

Sampling and testing frequency, duration and other related guidelines are described in the "User Charge Sampling & Analysis Procedures and Billing Computations," attached to this report as Appendix A.

The LCA Pretreatment Plant (PTP) is required to treat certain industrial discharges to 210 ppm for BOD and 230 ppm for TSS. Through the operation of the PTP, those industrial discharges, together with other customer discharges located upstream of the PTP, will be significantly reduced below those required levels. An agreement between the Signatories, LCA and the County (prior PTP owner) identifies how billings, and credits for those additional removals, will be calculated. Those terms have been used in calculating total system billables and the credits for this report.

Emmaus Billing Basis

The Emmaus Service Agreement (7/1/86) provides that Emmaus will participate in WLI operating and maintenance costs, including administrative costs, while excluding debt service. Administrative costs are allocated based on the ratio of salaries applicable to WLI operation and maintenance to total WLI salaries. The minimum and maximum limits for allocation of Administrative costs are 32% and 52% respectively.

III. CAPITAL RECOVERY FEES

Background

Since 1985, capital recovery fees have been charged to the Signatories to recover the purchase cost of treatment capacity from the City (Treatment allocation Fee) and the construction cost of the WLI (Interceptor Fee). Since 1986, a Relief Interceptor Fee has also been charged to all new connections. The Interceptor Fee is recovering costs of the original interceptor, the various relief facility projects and the flow equalization basin.

A review of all fees is conducted annually with proposed changes made effective when determined. All fees are calculated in accordance with Pennsylvania Law (Act 57 of 2003.)

Use of Capital Recovery Fees

The Interceptor fees currently collected for new user connections to the WLI are currently held in a reserve account to retire additional WLI debt, fund capital projects or pay for unexpected expenses.

Since the bonds that financed the Relief Interceptor were retired, collected fees have been placed in an account and will be funding a portion of the WLI system capital costs.

Concerning treatment capacity, as the service area continues to grow and the need for treatment capacity grows, the treatment fees collected are placed in a reserve fund to either purchase additional capacity or to fund additional capacity options.

IV. WLI USER CHARGE DEVELOPMENT

This section describes the methods used to calculate WLI User Charges. Four general steps are followed:

1. Year 2021 costs have been estimated based on prior years' cost, flow and loading trends.
2. Costs have been allocated to five billing parameters – FLOW, BOD, TSS, TKN and ALLOCATION.
3. A billing basis has been estimated for each billing parameter.
4. Unit costs were determined for each parameter by dividing the total costs by the billing basis.

Two types of costs are incurred – City and LCA. City charges include three types of costs – debt service, interceptor use, and operation and maintenance. LCA charges include two types of costs – debt service and operation and maintenance.

Assumptions

For estimating City costs, the following assumptions have been made for LCA total discharge to the City:

	<u>2020</u>	<u>2021</u>
LCA Total Allocation in City Plant	10.78 MGD	10.78 MGD
Average Daily FLOW	11.7 MGD	9.3 MGD
Average BOD Concentration	131 ppm	121 ppm
Average TSS Concentration	148 ppm	125 ppm
Average TKN Concentration	28 ppm	31 ppm

City Debt Service

LCA is required to pay a portion of the pre-concession lease debt service on the bonds that were purchased to finance the City Plant improvements based on the LCA share of treatment capacity. LCA's estimated share of these total debt service costs is \$113,914 for 2021. This pre-concession debt will be completely paid off by the end of 2026. An additional debt service amount of \$263,869 is also being charged for projects which LCA has executed since it began operating the City Plant in 2013. These projects include the replacement of the belt filter press, motor control center, Substation #2 rehabilitation, and digester cover replacement at the Kline Island Wastewater Treatment Plant and roof replacements at both the Kline Island Wastewater Treatment Plant and the Distribution and Collections Building. Also included in total City Debt Service is an annual payment of \$80,344 for financed Administrative Order projects, bringing total City Debt Service for 2021 to \$458,127.

City Interceptor Use

In lieu of debt service, LCA pays a fixed rate of \$0.01 per 1,000 gallons for the use of the City interceptors. For 2021, the estimated cost is \$33,882.

City Operation and Maintenance

LCA pays the City fund for all flow and pounds discharged by the Western Lehigh Interceptor Signatories. The following City Division's municipal signatory unit rates, shown in comparison to the previous year's rates, were estimated by LCA:

City Rates	2020 Rates - Estimated	2021 Rates - Estimated
FLOW (per 1,000 gals)	0.185	0.236
BOD (per pound)	0.259	0.314
TSS (per pound)	0.214	0.277
TKN (per pound)	0.369	0.415

The components of the City costs are summarized in the Table - "Allentown Estimated Costs" (page 13). For 2021, we have estimated the City Division's municipal signatory unit charges using a 2020 estimate for total hydraulic and organic loadings based on actual 3rd and 4th quarter 2019 and 1st and 2nd quarter 2020 signatory flows and loads into Kline's Island Wastewater Treatment Plant. These flows and loads are lower than those used to calculate the 2020 rates and reflect the decrease in the amount of rainfall the region has received in this period. 2021 budget rates used for City Division municipal signatory quarterly bills are calculated using 2021 approved budget Kline's Island Wastewater Treatment Plant and Collections Department operating and maintenance expenses divided by the 2020 *actual* flows and loads, which will differ from the 2020 *estimated* flows. Because the cost basis of the City Division municipal signatory rates is about 8% higher than in 2020 and the billing basis across parameters is lower, the resulting 2021 rates are higher than those estimated in 2020. The higher cost basis is due primarily to an increase in funds available to perform additional general improvements at the City Plant.

LCA Debt Service

The 2021 Debt Service is estimated at \$398,555. The Debt Service is based on PennVest loans approved to fund the Flow Equalization Basin project mentioned in the Introduction.

LCA Operation and Maintenance

Operation and maintenance costs are shown in the Table - "Operation & Maintenance Costs" (page 14). As mentioned previously, since Emmaus does not participate in all operation and maintenance costs, separate costs that Emmaus and the Signatories share in are shown in the Table - "O&M Costs Shared by Signatories and Emmaus" (page 15).

As in previous User Rate Reports, the costs of Exceptional Strength Analyses are equally divided between BOD, TSS and TKN. These costs do not include any Signatory reimbursements.

Billing Basis

To estimate the 2021 billable discharges, the second half of 2019 and the first half of 2020 billings were reviewed. Projected growth was added to Upper Macungie Township and Upper Milford Township to account for the start-up of Keurig-Dr. Pepper and the Fields at Indian Creek and Jasper Ridge residential housing developments, respectively. A summary of this information may be found in the Table - "Billing Basis O&M" (page18).

Rate Design

Although rate calculation options are almost limitless, several legal requirements eliminate many of the options. First, federal law and regulations provide that “each recipient of the waste treatment services within the applicant’s service area will pay its proportionate share of the cost of operation (including replacement) of all waste treatment service provided by the applicant.”

Second, Pennsylvania’s Municipality Authorities Act requires that rates be “uniform and reasonable.”

Finally, the Service Agreements require that a rate methodology substantially identical to that adopted by the City be used and that debt service costs attributable to the City facilities and to the WLI be allocated in proportion to the hydraulic allocation.

Based on the aggregate of these restrictions, unit costs for FLOW, BOD, TSS, TKN, and ALLOCATION are calculated on the total billables divided into the total cost for each parameter. City and LCA debt service and other costs are only allocated to the Signatories and not Emmaus. LCA operation and maintenance costs related to the WLI are allocated to both the Signatories and Emmaus.

User Rate Adequacy

Using the proposed unit rates, multiplied by the various customer billing bases, a total expected revenue of \$8,423,077 is estimated. Comparing this revenue to the expense of \$8,423,077 shown on the Table - “Cost Allocation Summary” (page 17) indicates an overall coverage of 0%.

WESTERN LEHIGH INTERCEPTOR
TABLES

ALLENTOWN ESTIMATED COSTS

	2020 Est Budget	2021 Estimate
DEBT SERVICE:		
Summary	\$ 435,804	\$ 458,127
Other Interceptor	42,885	33,882
	<hr/>	<hr/>
DEBT SERVICE SUBTOTAL	\$ 478,689	\$ 492,010
	<hr/>	<hr/>
 OPERATION AND MAINTENANCE:		
Flow	\$ 793,380	\$ 799,892
BOD	1,214,899	1,069,473
TSS	1,135,090	975,610
TKN	372,791	367,769
	<hr/>	<hr/>
OPERATION AND MAINTENANCE SUBTOTAL	\$ 3,516,160	\$ 3,212,744
	<hr/>	<hr/>
 TOTAL ALLENTOWN COSTS	\$ 3,994,849	\$ 3,704,754
	<hr/> <hr/>	<hr/> <hr/>

OPERATION & MAINTENANCE COSTS

ITEM	2020 ESTIMATED LCA COSTS	2021 ESTIMATED LCA COSTS
DEBT SERVICE:		
Financing and Bond Issues	\$ 398,555	\$ 398,555
OPERATING & MAINTENANCE CHARGES:		
Personnel		
Personnel Subtotal	\$ 179,959	\$ 153,053
Purchase of Services		
General Services	\$ 162,414	\$ 231,953
Employee Benefits	\$ 105,966	\$ 165,838
Utilities	\$ 124,357	\$ 111,216
Engineering	\$ 12,886	\$ -
Exc. Str. Analyses (External)	\$ 43,000	\$ 43,000
General Analyses (External)	\$ 3,300	\$ 3,300
Maintenance	\$ 186,847	\$ 123,750
Misc. Purchase of Services	\$ 80,412	\$ 4,650
I/I Rehabilitation Program	\$ -	\$ -
Rental Charges	\$ 35,413	\$ -
Purchase of Services Subtotal	\$ 754,596	\$ 683,708
Materials and Supplies		
Fuel	\$ 9,446	\$ 10,000
Misc. Materials & Supplies	\$ 21,820	\$ 66,830
Materials & Supplies Subtotal	\$ 31,266	\$ 76,830
Equipment		
Equipment	\$ 153,043	\$ 179,480
Amoritized Equipment	\$ -	\$ -
Equipment Subtotal	\$ 153,043	\$ 179,480
Capital Funding (Sig. + Emmaus)		
Capital Management	\$ 7,500	\$ -
Amoritized Planning & Flow Monitoring (AO)	\$ 200,000	\$ 242,000
Capital Funding Subtotal	\$ 207,500	\$ 242,000
TOTAL OPERATING & MAINTENANCE	\$ 1,326,364	\$ 1,335,071
Pay-Go Capital Projects (Non-AO)	\$ -	\$ -
Reserve Amount for Future Projects	\$ 400,000	\$ 250,000
TOTAL LCA EXPENSES	\$ 2,124,919	\$ 1,983,626
Less: Miscellaneous Revenue	\$ -	\$ -
TOTAL LCA CHARGES	\$ 2,124,919	\$ 1,983,626

O&M COSTS SHARED BY SIGNATORIES AND EMMAUS

ITEM	2021 ESTIMATED LCA COSTS	PERCENT ALLOCABLE TO EMMAUS	PORTION SHARED BY SIGNATORIES AND EMMAUS
DEBT SERVICE:			
1996 Financing & Bond Issue	\$ 398,555	0.0%	\$ -
OPERATING & MAINTENANCE CHARGES:			
Personnel			
Personnel Subtotal	\$ 153,053	52.0%	\$ 79,588
Purchase of Services			
General Services	\$ 231,953	52.0%	\$ 120,616
Employee Benefits	165,838	52.0%	86,236
Utilities	111,216	100.0%	111,216
Engineering	-	100.0%	-
Exc. Str. Analyses (External)	43,000	0.0%	-
General Analyses (External)	3,300	100.0%	3,300
Maintenance	123,750	100.0%	123,750
Misc. Purchase of Services	4,650	100.0%	4,650
I/I Rehabilitation Program	-	100.0%	-
Rental Charges	-	52.0%	-
Purchase of Services Subtotal	\$ 683,708		\$ 449,768
Materials and Supplies			
Fuel	\$ 10,000	100.0%	\$ 10,000
Misc. Materials & Supplies	66,829.75	100.0%	66,829.75
Materials & Supplies Subtotal	\$ 76,830		\$ 76,830
Equipment			
Equipment Subtotal	\$ 179,480	100.0%	\$ 179,480
Capital Funding			
Capital Funding Subtotal	\$ 242,000	100.0%	\$ 242,000
TOTAL OPERATING & MAINTENANCE	\$ 1,335,071		\$ 1,027,666
Reserve Fund Allocation	250,000	0.0%	-
TOTAL LCA EXPENSES	\$ 1,983,626		\$ 1,027,666
Less: Miscellaneous Revenue	-		-
TOTAL LCA CHARGES	\$ 1,983,626		\$ 1,027,666

TOTAL SYSTEM COSTS

	2020 Budget	2021 Estimate
DEBT SERVICE:		
Allentown	\$ 478,689	\$ 492,010
LCA	398,555	398,555
DEBT SERVICE SUBTOTAL	<u>\$ 877,244</u>	<u>\$ 890,564</u>
 OPERATION AND MAINTENANCE:		
Allentown	\$ 3,516,160	\$ 3,212,744
LCA	1,726,364	1,585,071
OPERATION AND MAINTENANCE SUBTOTAL	<u>\$ 5,242,524</u>	<u>\$ 4,797,815</u>
 COUNTY CREDITS		
BOD	\$ 1,272,802	\$ 1,912,081
TSS	600,411	822,616
TOTAL COUNTY CREDITS SUBTOTAL	<u>\$ 1,873,213</u>	<u>\$ 2,734,697</u>
 TOTAL SYSTEM COST	<u><u>\$ 7,992,981</u></u>	<u><u>\$ 8,423,076</u></u>

COST ALLOCATION SUMMARY

	Total Cost	ALLOCATION PARAMETER				
		Flow	Allocation	BOD	TSS	TKN
O&M						
Allentown O&M	\$ 3,212,744	\$ 799,892	\$ -	\$ 1,069,473	\$ 975,610	\$ 367,769
LCA O&M	1,585,071	1,542,071		14,333	14,333	14,333
Total O&M	\$ 4,797,815	\$ 2,341,963	\$ -	\$ 1,083,806	\$ 989,943	\$ 382,102
LCA WTP CREDITS *	\$ 2,734,697	\$ -	\$ -	\$ 1,912,081	\$ 822,616	\$ -
DEBT SERVICE						
Allentown Interceptor	\$ 33,882	\$ 33,882	\$ -	\$ -	\$ -	\$ -
Summary of Allentown Debt	458,127	-	458,127	-	-	-
LCA	398,555	-	398,555	-	-	-
Total Debt Service	\$ 890,564	\$ 33,882	\$ 856,682	\$ -	\$ -	\$ -
TOTAL COSTS	\$ 8,423,076	\$ 2,375,845	\$ 856,682	\$ 2,995,887	\$ 1,812,559	\$ 382,102

* Credits to the LCA WTP are paid at City unit rates for non-required removals

BILLING BASIS O&M

	Flow gpd	BOD lb/day	TSS lb/day	TKN lb/day
<u>Signatory Area</u>				
Alburtis	137,628	368	407	58
Macungie	175,946	415	445	53
Lower Macungie	1,511,729	3,473	3,592	465
Upper Macungie *	4,589,098	17,378	11,580	1,503
Weisenberg	28,956	0 65	0 67	9
Upper Milford	183,137	556	495	57
Lowhill	6,384	13	15	2
Pretreatment Plant & Haulers	<u>213,805</u>	<u>446</u>	<u>490</u>	<u>62</u>
LCA SYSTEM SUBTOTAL	6,846,683	22,714	17,091	2,209
Emmaus	<u>656,327</u>			
TOTAL	<u><u>7,503,010</u></u>	<u><u>22,714</u></u>	<u><u>17,091</u></u>	<u><u>2,209</u></u>

* Includes 4% growth for UMT, and LCA direct customers Boston Beer (with a 10% growth factor) & Hilton Homewood Suites

UNIT COST SUMMARY

Item	Annual Cost	Billing Basis (gpd or lb/day)	Unit Cost (\$/1000 gal or \$/lb)
FLOW - Allentown Costs	\$ 833,774	6,846,682	\$0.3336
- Interceptor Costs/ Signatories	\$ 514,405.34	6,846,682	\$0.2058
- Interceptor Costs/ Signatories & Emmaus	\$ 1,027,666	7,503,009	\$0.3753
BOD (lb)	\$ 2,995,887	22,714	\$0.3614
TSS (lb)	\$ 1,812,559	17,091	\$0.2906
TKN (lb)	\$ 382,102	2,209	\$0.4739
ALLOCATION	\$ 856,682	10,780,000	\$0.2177

V. RELIEF INTERCEPTOR USER CHARGE DEVELOPMENT

This section describes the methods used to calculate user rates for the Little Lehigh Relief Interceptor System.

For both Phases, the total costs are divided by the billable flow. Billable flows differ between Phase 1 and Phase 2. Phase 1 provides service to the Signatories, Salisbury, South Whitehall, and Lower Macungie Township - Phase II and the Brookside Diversion. Phase 2 provides service only to the Signatories.

Costs for both Phases are shown in the Tables - "Phase 1-Operation & Maintenance Costs" (page 22) and "Phase 2-Operation & Maintenance Costs" (page 23).

Debt Service - Phase 1

In January 1993, the bonds issued for construction of Phase 1 were retired. No additional projects that required bond issues are ongoing and no debt service is included in the rate tables for this year.

User Rate Adequacy

For Phase 1, using the rate proposed, multiplied by the billing units derived in the table - "Billing Basis (For Phase 1) (page 24)," total revenue of \$674,111 is estimated. Comparing this revenue to the total expense of \$654,206, as shown on Table - "Phase 1-Operation & Maintenance Costs" (page 22), indicates an overall coverage of 3%. The extra revenue collected from the rate that applies to the non-WLI signatories that use LLRI-I is being applied to their capital cost for the Park Pump Station Rehabilitation. See section 3 of the Executive Summary for more detail.

For Phase 2, using the rate proposed, multiplied by the billing basis derived in the table - "Phase 2 - Cost Allocation" (p.26), total revenue of \$52,522 is estimated. Comparing this revenue to the total expense of \$52,522 as shown on Table - "Phase 2-Operation & Maintenance Costs" (page 23), indicates an overall coverage of 0%.

LITTLE LEHIGH RELIEF INTERCEPTOR

PHASES 1 AND 2

TABLES

PHASE 1 - OPERATION & MAINTENANCE COSTS

ITEM	2020 BUDGETED LCA COSTS	2021 ESTIMATED LCA COSTS
DEBT SERVICE & FINANCING EXPENSES:	\$ -	
OPERATING AND MAINTENANCE CHARGES:		
Personnel		64,138
Personnel Subtotal	\$57,384	64,138
Purchase of Services		
General Services	\$51,057	98,113
Employee Benefits	\$34,416	70,227
Utilities	\$228,117	203,488
Maintenance Services	\$9,799	81,800
Miscellaneous Services	\$4,735	300
Engineering	\$0	5,000
Rental Charges	\$9,758	-
Compliance - PA DEP Tank Registration	\$125	125
Purchases of Services Subtotal	\$ 338,008	459,053
Materials and Supplies		
Fuel	\$1,618	3,000
Misc. Materials & Supplies	\$6,649	15,014
Misc. Equipment	\$6,203	13,000
Materials and Supplies Subtotal	\$ 14,469	31,014
TOTAL OPERATING & MAINTENANCE COSTS	\$409,861	554,206
Pay-as-you-go Capital Project Funding	0	-
Reserve Amount for Future Projects	\$100,000	100,000
TOTAL LCA EXPENSES	\$ 509,861	654,206
Less: Miscellaneous Revenue	0.00	-
TOTAL LCA CHARGES	\$ 509,861	654,206

PHASE 2 - OPERATION & MAINTENANCE COSTS

<u>ITEM</u>	<u>2020 BUDGETED LCA COSTS</u>	<u>2021 ESTIMATED LCA COSTS</u>
DEBT SERVICE & FINANCING EXPENSES:	<u>\$ -</u>	
OPERATING AND MAINTENANCE CHARGES:		
Personnel		7,786
Personnel Subtotal	<u>\$1,518</u>	7,786
Purchase of Services		
General Services	\$1,185	11,112
Employee Benefits	\$1,171	7,954
Maintenance Services & Misc. Services	\$1,160	8,000
Utilities	\$70	116
Rental Charges	\$51	-
Purchases of Services Subtotal	<u>\$ 3,637</u>	<u>27,181</u>
Materials and Supplies		
Fuel	\$244	350
Misc. Materials & Supplies	\$572	2,204
Equipment	\$0	15,000
Materials and Supplies Subtotal	<u>\$ 816</u>	<u>17,554</u>
TOTAL OPERATING & MAINTENANCE COSTS	<u>\$ 5,971</u>	<u>52,522</u>
TOTAL LCA EXPENSES	\$ 5,971	52,522
Less: Miscellaneous Revenue	<u>0</u>	-
TOTAL LCA CHARGES	<u>\$ 5,971</u>	<u>52,522</u>

BILLING BASIS (For Phase 1)

<u>Municipality</u>	<u>Flow (gpd)</u>	<u>% Share</u>
Salisbury	383,237	3.64
South Whitehall	611,688	5.81
Lower Macungie-Phase II & Brookside	256,911	2.44
LCA Signatories	<u>9,282,860</u>	<u>88.12</u>
Total	<u><u>10,534,695</u></u>	100.00

LCA SIGNATORY BREAKDOWN BILLING BASIS (For Phase 1 and Phase 2)

<u>Signatory</u>	<u>Billable Flow (gpd)</u>	<u>% Share</u>
Alburtis	137,628	2.01
Lower Macungie	1,511,729	22.08
Macungie	175,946	2.57
Upper Macungie	4,589,098	67.03
Upper Milford	183,137	2.67
Weisenberg	28,956	0.42
Lowhill	6,384	0.09
LCA PTP	213,805	<u>3.12</u>
Subtotal	6,846,682	100.00
 Infiltration/Inflow	 <u>2,436,178</u>	
Total	<u><u>9,282,860</u></u>	

PHASE 1 - COST ALLOCATION

AMONG ALL USERS

Municipality	Flow % Share	Costs
Salisbury	3.64	\$ 23,799
South Whitehall	5.81	37,986
Lower Macungie - Phase II & Brookside	2.44	15,954
LCA Signatories	88.12	576,466
Total	100.00	\$ 654,206
	Billing Basis (gpd)	Unit Costs \$/1000 gals.
Annual Cost		
\$654,206	10,534,695	\$0.1701

(See Table "Phase I- Operation and Maintenance Costs")

\$167,510	10,534,695	\$0.0436
(\$3.35M amortized over 20 years at 0% for Park Pump Station Rehabilitation)		
Total costs		Total Rate
\$821,716	10,534,695	\$0.2137

Note: To determine unit cost: Divide total annual cost by converted billing basis
(Converted billing basis = ((10,534,695/1000)*365)

AMONG LCA SIGNATORIES

Signatory	Flow % Share	Costs
Alburtis	2.01	\$ 11,588
Lower Macungie	22.08	127,282
Macungie	2.57	14,814
Upper Macungie	67.03	386,386
Upper Milford	2.67	15,419
Weisenberg	0.42	2,438
Lowhill	0.09	537
LCA PTP	3.12	18,002
Total	100.00	\$ 576,466
	Billing Basis (gpd)	Unit Costs \$/1000 gals.
Annual Cost		
\$ 576,466	6,846,682	\$ 0.2307

Note: To determine unit cost divide annual cost by billing basis times number of days in year
divided by 1,000.

PHASE 2 - COST ALLOCATION

<u>Signatory</u>	<u>Flow % Share</u>	<u>Costs</u>
Alburtis	2.01	\$ 1,056
Lower Macungie	22.08	11,597
Macungie	2.57	1,350
Upper Macungie	67.03	35,204
Upper Milford	2.67	1,405
Weisenberg	0.42	222
Lowhill	0.09	49
LCA PTP	3.12	1,640
Total	100.00	\$ 52,522

<u>Annual Cost</u>	<u>Billing Basis (gpd)</u>	<u>Unit Costs \$/1000 gals.</u>
\$52,522	6,846,682	\$ 0.021

Note: To determine unit cost, divide annual cost by billing basis times number of days divided by 1,000.

APPENDIX A (Revised 11/30/16) USER CHARGE SAMPLING AND ANALYSIS PROCEDURES

The purpose of this document is to assist signatory municipalities using the Western Lehigh Interceptor (WLI) regarding sampling and analysis of non-residential users of their respective wastewater collection system. This document also describes the billing process and how test results are applied to the process.

LCA'S ROLE AS THE AGENT FOR THE MUNICIPALITIES

As the agent of the requesting municipality, Lehigh County Authority (LCA) will provide sampling and coordinate analysis of all designated users. Results reports with calculated averages used for billing ("Monitoring Data") and if applicable, additional sampling/analysis costs will be sent to the municipalities the month following sample collection. Difficulties encountered with an appropriate sampling site location, customer service or other inquiries will be directed to the municipality. LCA will be available to assist in addressing concerns.

MUNICIPALITIES ROLE

Using Monitoring Data provided by LCA and flow data (provided by LCA or municipality), the municipality will prepare monthly and/or quarterly reports for billing purposes, depending on user flow and monitoring frequency. Prepared reports will be submitted to LCA by the end of the month following the previous quarter. Agreed upon summary figures will be used for final billing to the municipality.

WLI USERS—LIST OF CUSTOMER TYPES

1. Residential Users
2. Non-residential Users
 - a. Non-sampled Users
 - b. Sampled Users
 - i. Sampled-low flow
 - c. Restaurant
 - i. Restaurant-low flow

NON-RESIDENTIAL TYPES TABLE

Non-Residential Type	Abbreviation	Description
Non-Sampled User	N	Industrial/commercial user assumed to have residential (flow) strength, such as banks and office buildings.
Sampled User	S	Industrial/commercial user whose flow strength has the potential to surpass the Extra Strength Limit (ESL) (based on technical literature on type of operation at facility, spot tests, and experience of other wastewater utilities).
Sampled-Low Flow User	S-LF	Used when a typically sampled site has quarterly flow less than 25,000 per annual average.
Restaurant	R	Commercial user whose facility processes food--has direct service connection to the municipal sewer system. Does not include facilities where food is served, but prepared elsewhere.
Restaurant-Low Flow	R-LF	Used when a typically sampled restaurant site has an annual average flow of less than 25,000 gallons per billing period.

Parameter	Average Strength Limit (ASL) (ppm)	Extra Strength Limit (ESL) (ppm)
BOD (Biochemical oxygen demand)	250	300
TSS (Total suspended solids)	275	360
TKN (Total Kjeldahl nitrogen)	35	85
FOG (Fats, oils & grease)	N/A	50

WASTEWATER STRENGTH TABLE BY PARAMETER

INITIAL DESIGNATION DETERMINATION

The initial sample type designation of a non-residential user is based on the probability of high strength discharge, as determined from technical literature, spot tests, experience of other utilities, or from the information provided by the user.

Types of businesses to sample:

Restaurants

Manufacturing

Brewing and distilling operations

Water Bottlers

Food processing

Soft drink/juice processing/bottling

Grocery stores that process meat or other food preparation

The municipality shall have a process in place where-by they identify new users and notify LCA of any new non-residential users and add them to the monthly/quarterly billing report in the appropriate section of the report—Sampled/Restaurants or Non-sampled (non-residential users). LCA may contact the municipality to discuss and arrange initial monitoring of facilities not listed on the billing report or listed as non-sampled when it appears as though they have the potential for producing extra strength waste.

During the municipal review process for a new Sampled User or new Restaurant, a sampling location will be required to be shown on the drawings and approved by the municipality. The municipality will also make the determination if a grease interceptor/grease trap is required. For existing buildings, LCA will review the proposed sampling location and determine if the installation of a sampling manhole and/or a grease interceptor is necessary.

The municipality shall furnish LCA with the following information for all Sampled and Restaurant Users and of the interceptor prior to the selection of the sample site:

1. User designation—Sampled User (S) or Restaurant (R)
2. Name of company
3. Property address
4. Municipal building identification code (if applicable) or account number
5. Business contact information—responsible person and phone number
6. Number of normal working days or days of operation
7. Description of business operations
8. Sampling location

This information will be used for scheduling and reporting. Please promptly provide updates to LCA to ensure proper scheduling and correct information for reports.

ANNUAL DESIGNATION

By December 15 of each year, the municipality shall furnish LCA with an annual average flow report for non-residential users. For this calculation, average the prior year QTR 4, the current year QTRs 1, 2, and 3 flows. This is an example of a basic report design:

SITE ID	BUSINESS NAME	2015 QTR 4	2016 QTR 1	2016 QTR 2	2016 QTR 3	ANNUAL AVG FLOW
4	Company X	200,000	200,000	200,000	200,000	200,000

Notes: Unless the site has flow >1,000,000 in a billing period, the annual average flow calculated in December of the prior monitoring year sets the monitoring frequency for the non-residential user for the next monitoring year. Do not change the monitoring frequency of sites based on the flow of one billing period or at any other time throughout the year.

Low Flow Sites: All industrial/commercial sites that were previously sampled but now have an annual average flow per billing period <25,000 gallons will be excluded from monitoring. These sites will be listed as either S-LF or R-LF indicating low flow. LF sites will be placed back on the schedule for monitoring if the annual average flow per billing period exceeds 25,000 gallons. Low flow sites should be moved to the non-sampled portion of your quarterly billing report with LF added to the site type and ID number to make them easier to track. Use Average Strength billing parameters for LF sites regardless of previously reported test results. Treat LF sites like any other non-sampled site while the flow remains low (less than 25,000 annual average).

SAMPLING FREQUENCY

SAMPLING FREQUENCY BASED ON ANNUAL AVERAGE FLOW

Annual Average Flow per Billing Cycle	Sample Frequency-Sampled User	Sample Frequency-Restaurant
<25,000 gals	Not sampled	Not sampled
25,000 to 99,999 gals	One day per year	3-days per year (Wed, Thurs, Fri or Thurs, Fri, Sat) plus FOG for 1 day
100,000 to 999,999 gals	Work week per year	
> 999,999 gals	Work week per billing period	3-days per billing period (Wed, Thurs, Fri or Thurs, Fri, Sat) plus FOG for 1 day
Notes: Any new Sampled User will initially be sampled for a work week. Scheduling will be required per billing period, if a site has a flow >1,000,000 gallons per billing period and has exceeded one of the extra strength limits.		

The discharge from each Sampled User will be analyzed at least once per year. Each sample will be analyzed for pH, BOD (biochemical oxygen demand), TSS (total suspended solids), and TKN (total Kjeldahl nitrogen). Fats-Oils-Grease (FOG) concentration will be analyzed if food products are produced at the facility or at the request of the municipality.

LCA may sample the non-residential location at any time during the calendar year, but will try to schedule sampling in the same quarter each year.

Initial sampling for any new Sampled User will be for a work week (providing flow is greater than 25,000 gallons per billing period). The Table for sampling frequency by annual flow does not apply for initial monitoring. This also does not apply to Restaurant Users, which are sampled for 3 consecutive days with quarterly flow >25,000 gallons.

The discharge from each Restaurant will be analyzed at least 3 consecutive days annually, either Wednesday-Thursday-Friday or Thursday-Friday-Saturday. Each daily sample will be analyzed, at a minimum, for pH, BOD, TSS, and TKN. FOG concentration will be analyzed at least one day during the sampling period.

REQUESTED ADDITIONAL SAMPLING AND ANALYSIS

A municipality may request additional sampling and analysis of any Sampled or Restaurant User. Sample collection and analysis costs will be noted on the results reports to the municipality. Billing for additional Monitoring Data will be addressed in the final bill of the year.

The Monitoring Data will be used for billing purposes for that billing period and all successive billing periods until new Monitoring Data become available after the completion of the next monitoring event.

NON-SAMPLED USER SAMPLING AND ANALYSIS

A municipality may request sampling and analysis of any non-residential user not included in the Sampled or Restaurant User definition. Test costs and sample collection costs will be billed to the municipality with the results reports.

While the municipality may use the results of the sampling and analysis for billing, LCA will not use the results for purposes of billing the municipality. However, results greater than the extra strength limits may indicate that the user should be added to the municipality's Sampled list.

BILLING COMPUTATION

With the exception of pH, results for each parameter will be averaged and used for billing purposes. The acceptable pH range is 6.5-10.5 pH units upstream of the LCA Wastewater Pretreatment Plant, or 5.0-12.0 pH units below the plant. The municipality will be notified if any result is out of range so that they can determine the cause and initiate corrective action.

To calculate pounds:

If all average results—other than pH—are less than the ESL (BOD-300ppm, TSS-360ppm, and TKN-85ppm), the ASL (BOD-250ppm, TSS-275ppm, and TKN-35ppm) will be used for billing calculations. If any average result is greater than the ESL, the result will be used for billing that parameter and ASL will be used for any parameter average result less than the ESL. The calculation for pounds is: $\text{flow} \times 8.34 \times \text{ppm}$.

Example: Average results are: BOD-400, TSS-300, and TKN-100. The BOD result is greater than the ESL of 300--calculate using 400. TSS is less than the ESL of 360--calculate using the ASL of 275. The TKN is greater than the ESL of 85--calculate using the result of 100.

SAMPLING AND ANALYSIS CHARGES

If a user in the Sampled User or Restaurant category is sampled and found to discharge flow with strength below the ESL, sampling and analysis charges will be waived.

If a user is found to discharge greater than the ESL (a result greater than any one of the billing parameters not including FOG), sampling and analysis charges will be billed to the municipality for annual sampling, or any repeated sampling found to exceed any extra strength limit.

The limit for FOG (fats-oils-grease) analysis is 50 ppm. If result is greater than this limit, the municipality will be billed for sample collection and analysis.

APPENDIX B
(10/22/15)
ESTIMATED QUATERLY BILL PROCEDURES

Estimated Quarterly Bills

- Four quarterly bills will be estimated.
- The estimated quarterly bill amount will be calculated in October for the following year.
- The estimated quarterly bill will be based on a 4 quarter average and the following year's User Charge Report.
- Signatories will be notified of the following year's quarterly estimated bill amount in September or October of each year.
- Quarterly estimated bills will be issued on or about the first of the following months: April, July, November, and January.
- Quarterly estimated bills will be due 30 days after the billing date.
- LCA will enforce the 5% penalty for late payment. The penalty shall be 5% of the payment due if not paid within 30 days from the billing date and an additional 5% of the payment due if not paid within 60 days, and thereafter an additional 1% per month or fraction thereof.
- Signatories must provide actual quarterly data in a timely manner.
- Actual bills will be calculated during the year but no later than May of the following year.
- Adjustments for reconciliation of the prior year's quarterly estimated bills and reconciliation of the City bill will be issued no later than July of each year.

FINANCE & ADMINISTRATION

ACTION ITEM

1. 2021 Budget Review – October 12, 2020 (discussion) and October 26, 2020 (approval)

The Board will receive a second presentation on the 2021 Budget and review the schedule for the remainder of the process for approval at the last meeting in October.

2. WLI User Charge Report – October 12, 2020

The WLI User Rates will be presented to the Board for review and preliminary approval. The rates will be presented to the municipal signatories for comment, and final rates incorporated into the 2021 Budget.

DISCUSSION ITEMS

INFORMATION ITEMS

1. Recently Purchased Investments – Certificates of Deposit (CDs)

Fund	Bank	Location	Gross Amount	Date of Purchase	Date Due	Net Rate %
LLRI CR	Industrial and Commercial Bank of China USA	New York, NY	245,000.00	8/28/20	2/28/22	0.200
WW Capac	Bank Hapoalim B.M.	New York, NY	249,000.00	8/26/20	8/26/22	0.250
WW Capac	Meridian Bank	Paoli, PA	249,000.00	8/28/20	2/28/22	0.150

Cons Wtr (2)	Consolidated Water (2)
LLRI CR	Little Lehigh Relief Interceptor Capital Reserves
Cons LL2 (314)	Consolidated Little Lehigh Relief Interceptor 2
WW Capac	Wastewater Capacity
2010 Wtr Cons A	2010 Water Construction, Series A Bond
Wtr R&R	Renewal and Replacement

2. Developments

Water system construction is occurring in the following developments:

8323/8449 Congdon Hill Drive, 2 industrial lots with warehouses, LMT

8615/8783 Congdon Hill Drive, 2 industrial lots with warehouses, LMT

Fields at Indian Creek, Phases 4 & 5, 86 residential units (sfd), water and sewer, UMiIT & Emmaus

Kohler Tract, 123 residential lots (sfa), water and sewer, UMiIT

Water system plans are being reviewed for the following developments:

749 Route 100, 1 industrial lot with warehouse, UMT

1047 Cetronia Road, 8 unit apartment building, UMT

1224 Weilers Road Townhouses, 144 townhouse units (sfa), UMT

5329-5347-5357 Hamilton Blvd., 1 commercial lot, LMT

5420 Crackersport Road, 1 commercial lot, UMT

ATAS International, 1 industrial lot, UMT

Cedarbrook Road Industrial Park, 2 industrial lots, LMT

Estates at Maple Ridge, 30 residential units (sfd), UMiIT

Hidden Meadows, Phase 2, 86 townhouse units (sfa), UMT
Laurel Field, Phase 5, 25 townhouses, UMT
Lehigh Hills, Lot 5 Phase 2, 240 residential units (sfd.), UMT - New
Lehigh Hills Townhouses, 24 townhouse units (sfa), UMT - New
Madison Village at Penn's View, 66 manufactured homes, 1 lot, water and sewer, LynnT
Mountain View Estates, 27 residential units (sfd), LMT
Ridings at Parkland – Phase 2, 38 residential units (sfd), NWT
Schoeneck Road, Lot 1, 1 lot warehouse, LMT
Shepherds Corner, 1 commercial lot, LMT
Towneplace Suites by Marriott, 91-room hotel, UMT

Sewage Planning Modules Reviewed in Prior Month:

7th & Linden Apartments, Allentown, 49,719 gpd.
Plot 886 LLC, Salisbury, 1,115 gpd.
Wooshoo Burger, Allentown, 1,928 gpd.
Parkside at North Street, Emmaus, 7,280 gpd.
Chapmans Road Flex-Warehouse Facility, SWT, 4,330 gpd.

WATER

ACTION ITEM

1. **Allentown Division – 36" DI Water Main Condition Assessment – October 26, 2020**

Water distribution system consultant Gannett Fleming, Inc is working with Pure Technologies to develop a condition assessment project focusing on the 36" ductile iron transmission line that feeds the north end of Allentown and Huckleberry Ridge Reservoir. This line has had two recent major failures and it would be beneficial to determine if there is a root cause for these failures that can be corrected to prevent further damage and water loss. The proposal is being finalized and Board approval will be requested at the October 26, 2020 meeting. If approved, the assessment will begin in late November or early December 2020.

2. **Allentown Division – Resolution No. 10-2020-1 – PENNVEST Application – WFP High Service Pump VFD Project – October 26, 2020**

The High Service Pumping Station at the Allentown Water Filtration Plant (WFP) provides the primary means for conveying treated water into the City distribution system and is a critical system component. As documented in the 2017 Allentown Division Water Master Plan and follow up condition assessment, the variable frequency drives (VFDs) are in very poor condition and no longer supported by the manufacturer. The project scope includes replacement of the VFDs on pump numbers 1 and 2, and replacement of the constant speed soft starter and motor with a VFD and inverter duty motor on pump number 3. LCA staff will bid this project in Spring 2021. LCA is pursuing a low-interest PENNVEST loan for funding for this project. The upcoming loan application submission must include a Resolution from the Authority authorizing the application. The loan application deadline is November 4, 2020 in order for this project to be considered at the January 20, 2021 PENNVEST board meeting. Resolution 10-2020-1 authorizing the application will be presented for LCA Board consideration at the October 26, 2020 meeting.

DISCUSSION ITEMS

INFORMATION ITEMS

1. **Allentown Division – Hamilton Street Cedar Creek Bridge Water Main Relocation Project**

As part of the Pennsylvania Rapid Bridge Replacement Program, the replacement of the Cedar Creek Bridge on Hamilton Street has required the relocation of approximately 500 linear feet of water main. The design phase was approved at the December 2016 Board meeting and the construction phase at the January 2018 meeting. As of February 22, 2018, the contractor completed a majority of the relocation work for LCA's facilities; however, they were pulled off the site due to construction conflicts. As of March 22, 2019 the original LCA water line relocation scope of work was completed, however an additional relocation of a LCA sanitary sewer line was added to the original scope and agreement as of April 15, 2019 with an anticipated completion of April 26, 2019. LCA anticipates submitting all final paper work to the state for reimbursement in the very near future when the project has reached 100% completion. As of November 27, 2019 the project is still under construction due to delays caused by environmental timelines to preserve the high quality clear water fishery. It is anticipated that this work will be reimbursed 100% by the state and that the construction related activities. As of February 2020, the LCA utility relocation portion of this project is 100% complete; total project is approximately 95% complete. **(No Change)**

2. **Allentown Division – Water Main Replacement Program Cycle 5**

The project is for the annual replacement of aged and/or failing cast iron water main in multiple locations throughout the City, in accordance with the new amended lease requirements (one mile per year), based on the design engineer's risk prioritization protocol. The design engineer (Gannett Fleming) halted work on Cycle 5 following City Compliance office acceptance of the Cycle 5 main replacement prioritization, pending available funding. Capital Works has re-started Cycle 5 design phase for construction in 2021 of a water main replacement project. Bid phase is anticipated to occur in late winter 2021. **(No Change)**

3. **Allentown Division – Water Filtration Plant: SCADA System Replacement**

The project consists of the replacement of the existing SCADA System at the Water Filtration Plant. The purchase and installation of new servers, new control panel cabinets, new cabling, and new programming software will encompass this project. Board approval to purchase this equipment was granted at the August 27, 2018 Board Meeting. Replacement will be completed by early 2020. Construction is 95% complete. This project will be funded by LCA Allentown Division. **(No Change)**

4. **Allentown Division – Water Filtration Plant: High Lift Pump VFD Replacements**

The Water Filtration Plan (WFP) supplies water to residential and commercial customers in the City of Allentown, as well as wholesale water to surrounding communities. One of the critical elements at the WFP is the High Service Pumping System (HSPS), which is the primary means of conveying treated water into the distribution system. The HSPS has experienced regular failures of aging electrical components. The July 2017 Allentown Water Master Plan categorizes the pump variable frequency drives (VFDs) in very poor condition and notes that the VFDs are no longer supported by the manufacturer. This project will replace two of the existing VFDs and add a third VFD. This project was identified as unfunded in 2018 and 2019 prior to the dispute settlement with the City and may be supported through a PENNVEST loan pending. Board approval was granted at the 8/12/19 Meeting for the design phase of this project. Contract drawings representing 90% design were received in mid-November 2019. The design engineer also completed an "Arc-Flash" study in summer 2020 to identify related electrical deficiencies at the WTP. Final design engineering work was re-started in early September 2020 following execution of the new Agreement with the City. Capital Works met with a representative of PennVEST on 9/18/20 to discuss an upcoming application submission and final design completion schedule. Capital Works' objective is to meet the 11/4/20 application submission deadline for the 1/20/21 PennVEST meeting.

5. **Allentown Division – Water Filtration Plant: Raw Water Pump Room Painting Construction Phase**

Since 2015, the piping and appurtenances of the high lift pump station (Phase 1) and the filter gallery (Phase 2) have been painted. It is the intent of Phase 3 to paint the piping and associated appurtenances in and around the raw water pump room, as the coatings are in poor condition. The project was advertised for bid in late December and bids were received mid-January. Construction phase Board approval was approved at the 2/10/20 Board meeting. The pre-construction meeting was held on 2/12/20, construction began in March and is currently on hold due to pandemic related concerns. Construction is anticipated to resume once restrictions are eased and the risk of seasonal pipe sweating has abated, and should be completed in Fall 2020. **(No Change)**

6. **Suburban Division – CLD Auxiliary Pump Station Project**

The project consists of installation of a new booster pumping station with SCADA and water main extension to pump water from the Lower Pressure System to the Upper Pressure System. The LCA Suburban Division will fund the project. Bids for the project were received on 6/29/18. Board approval for the construction phase of the project was granted at the 7/23/18 meeting. A

preconstruction meeting was held on 8/28/19. Construction was substantially completed in February 2020. Current status is addressing punch list items not completed during start-up testing – construction is 99% complete. **(No Change)**

7. Suburban Division – Upper Milford-CLD Interconnection Project (Kohler Tract)

The project features the installation of a new booster pumping station and water main extension to interconnect the Central Lehigh Division (CLD) with the Upper Milford Division (UMD) allowing the abandonment of the UMD water supply facilities, and to provide water service to the proposed 123-lot Kohler Tract subdivision in Upper Milford Township. Costs are being shared between the LCA Suburban Division and the developer of the Kohler Tract (Jasper Ridge). Pumping station bids were opened on 4/25/19. Board approval for the construction phase of the project was granted at the 5/13/19 meeting and a preconstruction meeting was held on 6/25/19. The NPDES permit was issued on 3/9/20 and a premobilization teleconference was held on 3/19/20. Upper Milford Township has issued building permits. Construction is underway and is anticipated to be completed in October of 2020 – construction is 70% complete.

8. Suburban Division – Watershed Monitoring Program

The project will include setting up a surface water flow-monitoring network for the Little Lehigh Creek. The work is in response to the Watershed Monitoring Plan that was developed and reported to LCA by AI Guiseppe (SSM, Inc.) in 2017. In 2018, USGS selected the Delaware River Basin to pilot the National Next Generation Integrated Water Observing System (NGWOS). The Little Lehigh Watershed was picked as a targeted area of the NGWOS Project and additional surface water and ground water monitoring stations will be developed. USGS and LCA met on 11/19/2019 to discuss the proposed monitoring stations and the program in general. A follow up meeting was held on 12/16/2019. USGS and LCA have now found all three GW monitoring wells, LE860, LE 861 and LE862, who's usage had all been discontinued decades ago and their locations were presently unknown. USGS is now checking the viability of using them again. USGS has now completed the installation of (4) new surface water (SW) Gauging Stations in the Little Lehigh Watershed and all are collecting data. Two additional SW stations need to be relocated because of the intermittent streams they were originally planned to monitor. Additional ground water (GW) flow monitoring stations are in the planning stages. All six (6) Fybr sites are currently collecting flow data and the calibration process is expected to last several months. Four (4) out of eight (8) planned weather stations are currently operational and are recording data. **(No Change)**

9. Suburban Division – Buss Acres Pump Station Replacement Construction

The project consists of the consolidation and replacement of two well stations with a single new pump station and a new water storage tank to replace two antiquated hydropneumatic pump stations. The new station will be a variable frequency drive controlled double pumping system with full SCADA control. The design will include radon reduction elements and also accommodate the future installation of additional radon removal equipment, to be implemented upon DEP's mandate of a regulatory limit. The project is in construction phase. The Notice to Proceed was issued to the contractors on 9/24/19. Construction began in February 2020 and is approximately 35% complete.

10. Suburban Division – Water Meter Reading Equipment Upgrade

LCA's capital program includes the replacement of 20,000 transceiver units, and 10,000 units will be replaced in 2019 with the remaining to be replaced in 2020 under separate authorization. The new units have a 20-year battery life and are compatible with the new meter reading software purchased in 2017. This project will replace 100% of the remaining old style radio units over a two-year period. Construction phase services for the first round of 10,000 units was approved at the 5/13/19 Board meeting. Construction began in July 2019 and a change order was issued to

the contractor for the installation of the remaining transceiver units that were originally scheduled for replacement in 2020, in order to expedite the completion of the work under the program and take advantage of favorable contract unit pricing. The project is substantially complete. Work has been suspended due to the Covid-19 virus. The contractor continues to replace radios that were not working properly.

11. Suburban Division - Additional (Redundant) Water Supply - Small Satellite Divisions

This Project focuses on the development of an additional well for the Madison Park North (MPN) system per DEP guidelines to have a backup source of water supply. An agreement is in place with an adjoining property owner to MPN to drill a test well on their property. The “step drawdown test” was performed on 3/26/19 and indicated that the test well is a viable backup source to Well 1. A Pre-Drilling and Aquifer Test Plan was approved by DEP in late September of 2019. Authorization was granted at the June 22 Board meeting for aquifer testing of the proposed well as per the combined Pre-Drilling and Aquifer Test Plan. Well testing was performed in August in coordination with LCA’s engineer. Testing was halted upon discovery of a water bearing zone blocked by casing pipe grouting. A second test well location has been identified on the same property and well drilling and testing is scheduled for October.

12. Arcadia West Division – Water Storage Tank Replacement

The Arcadia West water storage tank has had several leaks in recent years and the coating has reached the end of its useful life. This project is for the replacement of the tank with a new concrete reservoir. Design phase authorization was awarded to Entech Engineering at the April 27, 2020 Board meeting. This project will be funded by the LCA Suburban Division. Design is underway and expected to be completed and ready for bid at the end of 2020. The DEP Public Water Supply Permit Application will be submitted in October.

WASTEWATER**ACTION ITEMS**

DISCUSSION ITEMS

INFORMATION ITEMS

1. Allentown Division – Kline’s Island WWTP: Phase 1 AO Design Improvements

This project includes the design of the AO improvements at the wastewater treatment plant. This conceptual design concept was approved by the City and the relevant final deliverables were received by LCA. The City then directed LCA to proceed with the final design of improvements related to the blending alternative. Board approval for the Professional Services Authorization with Kleinfelder East, Inc. was granted at the September 11, 2017 Board Meeting. The project is identified as Administrative Order Work and will be funded by the City. The 30% design drawings and specifications have been received. The City directed to “pause” the design phase of the project. The City has now directed LCA to keep this project on indefinite hold. **(No Change)**

2. Allentown Division – Kline’s Island WWTP: Max Monthly Flow Capacity Evaluation

DEP has noted that the KIWWTP has been performing at a high level and meeting its permitted effluent quality limits during a period of prolonged wet weather since early 2018. This study will provide the basis for confirming the plant’s maximum monthly average that can be sustained during prolonged periods of wet weather – while remaining in full compliance with effluent quality requirements of the plant’s permit. Approval of the study was granted at the 8/26/19 Board Meeting. The study was completed in mid-October 2019 and a Part II Permit was sent to DEP on 10/18/19. The permit will be resubmitted in early 2021 upon action by DEP on the Interim Act 537 Plan (submitted in September 2020). Therefore, the original permit submission is 100% completed – awaiting Revision #1. This project is considered an AO expense under terms of the Lease and is City funded. **(No Change)**

3. Allentown Division – Lehigh Street (Rte. 145) Water and Sewer Main Relocation Project

As part of the Pennsylvania Rapid Bridge Replacement Program, the proposed replacement of the Lehigh Street Bridge near the intersection with MLK Boulevard has required the relocation of existing City water and sewer lines that are located within the PennDOT right of way. Because the bridge is owned by Lehigh County and not the Commonwealth, the normal PennDOT relocation reimbursement schedules do not apply. Therefore, the County and LCA have executed an agreement on cost reimbursement on similar terms. LCA’s engineer is working on behalf of LCA on a final sewer relocation design that minimizes the extent of the relocation. There will be less water infrastructure relocation work required since the existing water main is attached under the bridge and will be reattached after the new bridge is constructed. Construction will commence in 2021. **(No Change)**

4. Allentown Division – Sanitary Sewer Collection System: I&I Source Reduction Program Plan (Year 1)

This project includes the design of the City of Allentown’s I&I Source Reduction Program Plan. In 2014, Video Pipe Services complete various CCTV inspections throughout twenty Primary and Secondary Basins. All pipe segments that called for complete pipe replacement have already been repaired. The remaining source reduction activities within the twenty Basins have been organized into a 5-Year Plan, with each year focusing on a different geographic region of the City’s sewer collection system. Design has been approved for all five years, with the first project commencing in 2020 and the last project finishing in 2024. Board approval for the construction phase of the “Year 1 Project” was granted at the March 9, 2020 Board Meeting. This project

commenced in early May 2020 and was finished in the middle of June 2020. The project is now officially closed. This project is considered an AO expense under terms of the Lease and is City funded. Year 2 details will be finalized in early 2021, with construction anticipated to start in Q2 of 2021.

5. **Kline's Island Sewer System – Regional Sewer Capacity & Wet-Weather Planning – Interim Act 537 Plan Preparation**

Following several months of discussion with the Pennsylvania Department of Environmental Protection (PA-DEP), all municipalities flowing into the Kline's Island Wastewater Treatment Plan have agreed to complete an Interim Act 537 Plan ("Interim Plan") by September 2020. This Interim Plan will primarily consist of projecting new connections to the regional sewer system from 2021 through 2025 and outlining steps to be taken during this timeframe to prepare a full Regional (Long-Term) Act 537 Plan ("Regional Plan"). This two-step planning process has been developed to allow all municipalities to work cooperatively toward a Regional Plan to meet future sewer capacity needs of the region, and to provide proper regulatory oversight and control of new connections to the system while the Interim Plan is in force from 2021 to 2025. To begin the process of compiling the Interim Plan, a consulting engineer has been preliminarily retained, and approval of their full Professional Service proposal was granted at the February 10, 2020 Board meeting. Costs associated with the development of the Interim Plan will be paid by the City of Allentown and reimbursed through existing intermunicipal agreements and by City customers through the use of the Administrative Order Fee. As of late August 2020, the Interim 537 Draft is 100% completed and was delivered to sixteen planning commissions on 3/16/2020. Planning commission meetings have occurred with public advertisement opening on 6/10/20 and closing on 7/10/20. Municipal resolution adoptions occurred in August and the Plan was delivered to DEP on 9/4/20.

6. **Kline's Island Sewer System – Regional Sewer Capacity & Wet-Weather Planning – Sewage Billing Meter QAQC Data Analytics and 2021 Flow Metering Preparation**

As part of the Interim Act 537 Plan, the municipalities served by the Kline's Island Sewer System have committed to completing a flow metering and modeling project beginning in 2021. The flow metering data will be used to prepare modeling and identify the capital improvements needed to meet the future sewage capacity needs of the region through 2050. The flow metering will include a mix of temporary meters and the existing sewage billing meters. Data delivery and storage procedures, quality assurance, and flow analytics need implemented in 2020 for these sewage billing meters. Without this meter development program, the data cannot be used from these meters. Therefore, to prepare for 2021 flow metering, a consulting engineer has been preliminarily retained, and approval of their full Professional Service proposal was granted at the April 27, 2020 Board meeting. Costs associated with the development of the QAQC data analytics and the 2021 flow metering preparation will be paid by the City of Allentown and reimbursed through existing intermunicipal agreements and by City customers through the use of the Administrative Order Fee. **(No change)**

7. **Regional Act 537 Plan Alternatives Analysis: Pretreatment Plant Upgrade Option**

To begin the process of developing the long-term Regional Act 537 Plan, the evaluation of the LCA Pretreatment Plant Alternatives was identified as an immediate need to assist with completing the full alternatives analysis to be completed within the next five years. The alternative to upgrade the Pretreatment Plant to full treatment was previously evaluated in the 2011-2016 timeframe. Additional study is required to fully evaluate the facility's capacity to treat current and future dry-day, wet-weather, and peak flows. To complete this evaluation, LCA staff has received proposals for two engineering firms that will serve in Program Manager and Technical Lead roles. The Program Manager will oversee all alternatives being evaluated at both the Pretreatment Plant and Kline's Island Wastewater Treatment Plan in Allentown as the Act

537 Plan is being developed. The Technical Lead will provide specific engineering and treatment plant modeling services to support evaluation of the Pretreatment Plant alternatives. Board approval for these professional services authorizations was granted at the 8/24/2020 meeting. **(No change)**

8. **Suburban Division – Western Lehigh Service Area – 2020 Flow Metering Program**

Future flow metering work is anticipated over the next several years for both the Western Lehigh service area as well as the entire regional Kline's Island Sewer System. In 2020, the Western Lehigh group will conduct flow metering for a period of eight months to gather additional data on inflow and infiltration and the impact of prior rehabilitation work. It is anticipated that more extensive flow metering will be required in 2021 and 2022 to develop a Regional Plan. Approval of a Professional Services Authorization and three-year contract with Flow Assessment Services was granted at the February 10, 2020 Board meeting. Also on February 10, 2020, the Board approved a Professional Services Authorization for Arcadis to provide quality assurance and data analysis services for the 2020 flow monitoring program. As of late August 2020, data collection is 80% completed. The second QA/QC of the data has concluded and recommendations have been provided.

9. **Suburban Division – Western Lehigh Service Area: 2020 Sewer Modeling**

The Western Lehigh Sewer Partnership (WLSP) hydraulic model has been calibrated using 2019 flow meter and rainfall data and is available to support long-term Act 537 planning for the Western Lehigh Interceptor (WLI). Five separate modeling tasks will be performed in order to facilitate broader Kline's Island Sewer System (KISS) planning need discussions. The results of this 2020 modeling will help to inform further future modeling decisions and alternative analyses that will occur during the full KISS model calibration period in 2022. A consulting engineer has been preliminarily retained and full authorization was granted at the 5/11/2020 Board meeting. The full model results will be available by November of 2020. The project will be funded by the LCA Suburban Division. A presentation was presented to the Board at the 8/10/20 Board Meeting. **(No change)**

10. **Suburban Division – Park Pump Station Force Main Rehabilitation**

The Park Pump Station and Force Main line were constructed in 1980 to provide wet weather relief to the Little Lehigh Creek Interceptor, which conveys wastewater from ten municipalities from outlying areas to the Kline's Island Wastewater Treatment Plant (KIWWTP). The force main consists of 8,715 linear feet of prestressed concrete cylinder pipe (PCCP) of various sizes (2,615' of 24"; 2,695' of 30"; and 3,405' of 36"), and connects with the 54" sanitary sewer interceptor that runs to KIWWTP. PCCP is particularly sensitive to deterioration due to hydrogen sulfide gas from wastewater, and corrosion of exposed reinforcing steel can result in structural degradation and pipe failure. An internal investigation of the pipe is required to assess the condition of the PCCP pipe and identify damage areas, in order to determine the locations and extent of rehabilitation needed to restore the level of service, prolong service life, and mitigate the risk of failure. LCA will conduct a limited manned inspection (tentatively Q4 of 2020) of the force main pipe at 5 air release valve (ARV) locations, 100 feet in both directions from the ARV manhole, which will be used as the initial evaluation of the representative condition of the pipe. One-day trial runs are tentatively scheduled in September to verify the amount of time available to keep Park Pump Station offline. The pump station must be inactive in order to perform the investigations. **(No change)**

12. **Suburban Division – Wynnewood WWTP Upgrade Project**

Wynnewood Terrace WWTP was constructed in 1980 by the developer to serve the Wynnewood Terrace subdivision, located in the Laury's Station area in North Whitehall

Township. Sewer service is provided to approximately 217 residential and 2 commercial properties. LCA acquired the system in 2003.

The plant, while meeting effluent limits, has reached the end of its useful life. The plant is constructed of in-ground steel tanks that are in poor condition, with areas of corrosion and loss of structural integrity. The mechanical and electrical systems are also at the end of their service life and in need of replacement. The proposed project includes replacement of the existing treatment facility in entirety with new technology and concrete tanks appropriate for the wastewater flows and loading characteristics. The new facility shall meet the effluent limits criteria established in the respective DEP and DRBC permits, including new or additional limits that may be imposed during the permitting process. Design phase was authorized in February 2017 and was concluded in late Summer 2018. The DEP Part 2 Water Quality Management Permit was received in March 2018. The project was advertised for bid in August 2018, bids were opened in September 2018, and bids were authorized for award at the October 22, 2018 Board meeting. Construction work mobilized in early 2019 and is anticipated to finish in Summer 2020. Construction is approximately 99% complete as of September 2020 and final start-up testing and training is occurring in early October.

13. Suburban Division - Lynn Township Corrective Action Plan

Excessive inflow and infiltration (I&I) and high wet-weather flows into the Lynn Township sewer system has been ongoing and increasingly challenging to address. As noted in LCA's monthly operations reports, treatment plant bypasses and sanitary sewer overflows have occurred in this system and must be addressed. On 6/4/19 a meeting was held with DEP, Lynn Township and LCA representatives as a result of a hydraulic overload at the wastewater treatment plant, based on 2018 Chapter 94 Report monthly plant flows. At the meeting, DEP directed LCA to submit an amendment to the pre-existing Corrective Action Plan (originally submitted by Lynn Township Sewer Authority) to include an updated system condition assessment and an outline of steps to be taken to mitigate I/I flows and maintain NPDES permit compliance. The Corrective Action Plan (CAP) includes structural and non-structural initiatives and involves coordination with the host municipality. The framework for the CAP was shared with the Board in February 2019. A meeting was held at Lynn Township with DEP in June 2019 to discuss the Lynn Township CAP and Township sewer planning/growth issues, and DEP directed LCA to submit a CAP Amendment by the end of summer 2019. The CAP Amendment contained an updated sewer system condition assessment and a corrective plan to further mitigate I/I flows. Updated CCTV work of the entire system was substantially completed in August 2019, and the inspection data was summarized in the CAP Amendment and is being used to scope a capital repair project. The Lynn Township Board of Supervisors adopted a sewer system rules and regulations ordinance on 9/12/19, which gives LCA the authority to inspect private laterals and facilities for illegal connections and perform follow-up enforcement. A meeting with DEP and Lynn Township representatives was held on 1/15/20 to discuss the CAP Amendment and plan moving forward. DEP sent a letter to LCA dated 6/8/20 granting 55 EDUs of sewer allocation relief for new connections to the system. **(No Change)**

14. Suburban Division - Heidelberg Heights Corrective Action Plan

On 2/11/19, DEP submitted a notice of violation to LCA regarding bypasses and permit exceedances at the Heidelberg Heights wastewater treatment plant. As discussed with the LCA Board during several meetings in 2018, this small satellite system has been challenged by high groundwater levels and significant infiltration and inflow (I&I) of clear water into the sewer system during rain events. LCA staff met with DEP officials on March 6, 2019 to discuss the problems and, as a result, LCA prepared a comprehensive Corrective Action Plan (CAP) and submitted DEP on 5/5/19. A draft of the plan was attached for Board review at the 4/22/19 Board meeting. The final CAP was submitted to DEP on 4/29/19. The Heidelberg Heights Board of Supervisors approved the advertisement for adoption of a sewer

system rules and regulations ordinance on 9/19/19, which gives LCA the authority to inspect private laterals and facilities for illegal connections and perform follow-up enforcement. The ordinance was adopted by the township the in October 2019. A Consent Order & Agreement (CO&A) was drafted by DEP and sent to LCA in May 2020, which incorporates the projects and schedule outlined in LCA's proposed CAP. The final CAP was adopted by resolution by the LCA board at the 6/22/20 meeting. **(No Change)**

15. Suburban Division – Sand Spring WWTP Upgrade Project Construction

The Sand Spring WWTP was constructed in 1972 by the developer to serve the Sand Spring development, located in the Schnecksville area in North Whitehall Township. Sewer service is provided to approximately 248 apartment units, 8 commercial properties, and an elementary school. Lehigh County Authority (LCA) acquired the system in 2005.

The plant, while meeting effluent limits, has reached the end of its useful life. The plant is constructed of in-ground steel tanks that are in poor condition, with areas of corrosion and loss of structural integrity. The mechanical and electrical systems are also at the end of their service life and in need of replacement. The proposed project includes replacement of the existing treatment facility in entirety with new technology and concrete tanks appropriate for the wastewater flows and loading characteristics. The new facility shall meet the effluent limits criteria established in the respective DEP and DRBC permits, including new or additional limits that may be imposed during the permitting process. Design phase was authorized in February 2017 and final design was delayed due to DEP Part 2 Water Quality Management and NPDES permitting issues. DEP approval of the Water Quality Management Permit was received in late December 2018, the design was finalized in late Spring 2019, and the project was advertised for bid in July 2019. Bids were opened on 8/13/19 and construction phase authorization was approved at the 8/26/19 Board meeting. A pre-construction meeting was held on 11/1/19 following execution of contract documents. Conditional Use approval and land development waiver were granted by North Whitehall Township in Spring 2020. Construction mobilization for site work occurred in late winter 2020 and construction is proceeding. Substantial completion and start-up of the new facility is anticipated for early 2021. **(No Change)**

16. Suburban Division - Trexlertown Wastewater Storage Facility

As part of the Western Lehigh service area's Sewer Capacity Assurance & Rehabilitation Program (SCARP), a conveyance capacity "bottleneck" was identified in the Trexlertown area of the Western Lehigh Interceptor, and this area was assigned a high priority due to occurrence of sanitary sewer overflows and basement backups in the vicinity. A parallel interceptor was originally conceived to run approximately from Cetronia Rd to Spring Creek Rd. The concept was modified to focus on providing storage capacity in the system for this area, due to concerns about downstream hydraulic impacts. This project is an interim solution to address local impacts of the system bottleneck, and will become part of the future long-term solution to alleviate regional conveyance capacity challenges. A pre-design feasibility study is being performed to evaluate various engineering alternatives, including an "in-line" parallel storage tank, conventional concrete tank (flow equalization basin), or other options. Award of the pre-design feasibility study to HDR was authorized at the 10/21/2019 Board meeting. The project is on hold pending Arcadis' completion of expanded modeling work and reevaluation of downstream impacts.

17. Suburban Division – Lynn Township Manhole Rehabilitation Project

This project involves the rehabilitation of manholes in the Lynn Township service area found to be structurally deficient &/or leaking. The project includes frame and cover replacement, interior pipe connection grouting, exterior concrete work and sealing of manholes, and sealing around manhole

frames located within roadway surfaces that are found experiencing infiltration through the frame and cover. The purpose of the project is to eliminate inflow and infiltration into manholes in the system. The project scope includes approximately 185 manholes will be rehabilitated in 2020. The project was advertised for bid in early June 2020, bids were opened on 6/26/20, and construction phase authorization was approved at the 7/13/20 LCA board meeting. Construction will be completed by late fall of 2020. **(No Change)**

18. Suburban Division - Heidelberg Heights 2020 Sanitary Sewer Replacement Project

In accordance with the adopted, executed Corrective Action Plan mandated by DEP, LCA is required to complete annual I/I mitigation projects to eliminate hydraulic overloads and bypass events at the Heidelberg Heights wastewater treatment plant. The Order requires that all original vitrified clay sewer main and lateral pipe be replaced within the next 5 years. This project was originally advertised for bid in March 2020 and bids were opened on 3/24/20. The low bid price exceeded this capital project construction budget for 2020, and the LCA board authorized rejection of bids at the 4/13/20 board meeting. The project scope was modified to reduce cost and the project was re-advertised for bid in June 2020, bids were opened on 7/13/20, and board authorization of construction phase was approved at the 7/27/20 LCA board meeting. Construction will be substantially completed by the end of 2020. **(No Change)**

19. Suburban Division – Western Lehigh Manhole Rehabilitation Project

This project involves the rehabilitation of key manholes in the Western Lehigh Interceptor service area. The project includes flood-proofing, interior pipe connection grouting, exterior concrete work and sealing of manholes, particularly those manholes that are in close proximity to the floodway and experience floodwater inundation. The purpose of the project is to eliminate floodwater inflow into the system. The project scope includes approximately 50 manholes to be rehabilitated in 2020 as part of a phased manhole rehabilitation program. The project was advertised for bid in April 2020, bids were be opened on 5/12/20, and construction phase authorization was approved at the 6/8/20 board meeting. Construction will be completed in fall 2020. **(No Change)**