



BOARD MEETING AGENDA – July 26, 2021 – 12:00 p.m.

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

1. Call to Order

- NOTICE OF MEETING RECORDINGS

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

- *Public Participation Sign-In Request*

2. Review of Agenda / Executive Sessions

3. Approval of Minutes

- *June 28, 2021 Board meeting minutes*

4. Public Comments

5. Action / Discussion Items:

FINANCE AND ADMINISTRATION

WATER

- *Suburban Division – Upper System Pump Station and Main Extension Design Phase Authorization (Approval) (yellow) (digital Board packet, page 7-11)*

WASTEWATER

- *Suburban Division – Western Lehigh Interceptor Manhole Rehabilitation Project – Phase 2 Construction Phase Authorization (Approval) (blue) (digital Board packet, page 12-16)*

6. Monthly Project Updates / Information Items (1st Board meeting per month) – **July report attached** (digital Board packet, page 17-29)

7. Monthly Financial Review (2nd Board meeting per month) – **June report attached** (digital Board packet, page 30-39)

8. Monthly System Operations Overview (2nd Board meeting per month) – **June report attached** (digital Board packet, page 40)

9. Staff Comments

- 10. Solicitor's Comments
- 11. Public Comments / Other Comments
- 12. Executive Sessions
- 13. Adjournment

UPCOMING BOARD MEETINGS		
August 9, 2021	August 23, 2021	September 13, 2021

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

June 28, 2021

The Regular Meeting of the Lehigh County Authority Board of Directors was called to order at 12:00 p.m. on Monday, June 28, 2021, Chairman Brian Nagle presiding. The meeting was hybrid via in-person and video and audio advanced communication technology ("ACT"), using the Zoom internet application, including telephone option. Each Board member and other attendees of the meeting were able to hear each other attendee and be heard by each other attendee. The public could also participate in the meeting in-person or via ACT, using the Zoom internet application, including telephone option. A Roll Call of Board members present was taken. Chairman Brian Nagle, Richard Bohner, Norma Cusick, Ted Lyons, Kevin Baker, Linda Rosenfeld, Jeff Morgan, and Scott Bieber were present for the duration of the meeting.

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

Chairman Nagle stated that the Board received their electronic copy of the Board packet in advance and asked if they also received their hard copy of the packet.

Chairman Nagle announced that Liesel Gross, Lehigh County Authority's Chief Executive Officer, was recently appointed to the American Water Works Association's (AWWA) Water Utility Council (WUC). She is one of twenty-five senior water utility leaders selected from across the United States to serve a three-year term on the council. The WUC oversees the AWWA's government affairs program, ensuring all sectors of the industry and their consumers are represented. Ms. Gross's term runs through mid-June of 2024.

REVIEW OF AGENDA

Liesel Gross stated there are no changes to the agenda and an Executive Session is scheduled to follow the regular meeting to discuss matters of potential litigation and personnel.

APPROVAL OF MINUTES

May 24, 2021 Meeting Minutes

On a motion by Richard Bohner, seconded by Scott Bieber, the Board approved the minutes of the May 24, 2021 Board meeting as written (7-0). Jeff Morgan abstained.

PUBLIC COMMENTS

None.

ACTION AND DISCUSSION ITEMS

Administration Division (Suburban) – Supervisory Control and Data Acquisition (SCADA) System Improvements

Chris Moughan gave an overview of the project which will transfer radio communications to cellular-based ethernet to connect to servers at the main office. The existing SCADA system's communication has become unreliable and many of the remote stations reside on a licensed radio network with obsolete hardware and software components. He said that the Authority would like to

retain Keystone Engineering Group to provide the hardware and programming services since they have provided valuable, cost-effective, and satisfactory work to the Authority in the past. They will provide detailed site visits and meetings, delivery of detailed design drawings and specifications as well as assistance with the bidding process.

Chairman Nagle asked if this will bring the Authority up to date with all the SCADA in the system or just a limited number. Mr. Moughan explained that this will take care of all the satellite stations that are still on the Telog system and use similar systems for remote access.

On a motion by Linda Rosenfeld, seconded by Richard Bohner, the Board approved the Capital Project Authorization for the Administration SCADA system upgrades in the amount of \$244,300.00 which includes the Professional Services Authorization to Keystone Engineering Group in the amount of \$214,300.00 (8-0).

CLD Upper System Water Supply Upgrade – Developer Cost-Sharing Agreement

Liesel Gross introduced the Readington Farms project, a dairy processing facility, located in the Fogelsville area zoned light industrial. Chuck Volk described the location of the facility in the Authority's upper system, on a 48-acre tract near the Authority's Well 6 station. The water requirements are 350,000 gallons per day and 500,000 gallons per day during their peak week. Sewer requirements are 250,000 gallons per day and will be addressed by Upper Macungie Township via the Interim Act 537 Plan. Mr. Volk said that the Authority has been budgeting and planning for this type of project, but there are some challenges within the system. To deal with inadequate pressure, the Authority's engineer recommended constructing a booster station on the north side of Rt. I-78 that would tie into the upper system and add additional supply and pressure to the proposed dairy facility. A draft cost-sharing contribution agreement is being developed which would have the developer pay the full cost of getting water under the highway and pay approximately one-third of the cost for the booster station. Future growth would pay for the remaining cost of the booster station in the future. The total estimated cost for the main extension, highway crossing and booster station is approximately \$1.7 million.

Ed Klein reviewed his calculations showing the project provides a positive net present value and a 7.1-year payback period, assuming no additional growth in the area, which is a very conservative assumption.

Liesel Gross reviewed the next steps, which include developing a construction schedule for the booster station that aligns with the developer's schedule and preparing a developer's water system and cost-contribution agreement for which Board approval will be required. Once approved by the Board, the Authority staff will work on securing the necessary easements and permits and move into design and construction.

Some Board discussion followed.

Kline's Island Sewer System – Interim Act 537 Plan & Trexlertown Upgrade Project Update

Phil DePoe updated the Board on the progress of the Interim Act 537 Plan briefly reviewing the background of the project. Mr. DePoe reported that the Department of Environment Protection (DEP) approved the plan on June 25, 2021. The next step in the workflow is the evaluation for the preliminary treatment alternatives, including a review of the pretreatment plant upgrade option. The preliminary study is due to be completed in September 2021. Another important next step includes the Trexlertown Interceptor evaluation, which will require a Special Study that will begin later this

summer after consultation with DEP. The final regional Act 537 Plan is due in March of 2025. While these studies are occurring, a flow characterization study and hydraulic model calibration effort are under way. Sewage flow meters and rain gauges are in place throughout the system and Arcadis is building the model which will be completed in June 2022. After the model is developed, the final alternatives analysis work can begin. The final alternatives analysis will continue from 2022 to 2024, prior to finalizing the plan in 2025. Municipalities will be continuing their individual inflow and infiltration (I&I) source reduction projects, providing quarterly reports to DEP during the planning period.

Scott Bieber asked how the collaboration is with the municipalities, especially with the work that needs to be done on the agreements. Mr. DePoe replied that the municipalities understand that collaboration is necessary for DEP approval. Liesel Gross added that the discussion about agreements will be focused primarily on costs, and the upfront collaboration has been helpful to build an understanding of the alternatives and each municipalities needs. There was some discussion regarding I&I reduction.

Mr. DePoe then reviewed the alternatives being analyzed to address the interceptor “bottleneck” issue in the Trexlertown area, which causes sanitary sewer overflows in that area during peak flow periods. Three options have been studied. Option 1 consists of constructing a parallel interceptor that would extend from the affected area to the Spring Creek Pump Station to eliminate dry day overflows. It would require an increase of pumping capacity at the pump station and would increase the flows in downstream interceptors. This would require additional study of downstream conditions and add considerable time and cost to the project. This option is estimated to cost \$25-30 million. A second option was studied to construct an underground storage tank or storage pipeline to hold back excess flows during peak flow periods. This option was found to be infeasible because the stored wastewater would not be able to be released back into the system on a timely basis due to the bottleneck conditions in the interceptor. Option 3 would be to re-evaluate the Iron Run Pump Station concept that was studied and designed in 2010 but not constructed. Through additional evaluation and hydraulic modeling, a hybrid alternative has been developed to construct an interim 2.5 million gallon per day pump station at the Pretreatment Plant in Fogelsville, and pump the sewage through a 1.5-mile force main to a connection point in the Upper Macungie Township interceptor that has available capacity to accept the flows. The Township’s interceptor flows to the Spring Creek Pump Station, and therefore bypasses the Trexlertown bottleneck area. This alternative is considered to be an interim solution that would alleviate 94.5 percent of the dry-day overflows in the Trexlertown area. The regional Act 537 Plan would then detail the long-term solution to address both dry- and wet-weather flows for this area. The interim solution would cost \$3-5 million.

The next steps in the process are to review the project concept with DEP, determine the requirements for a Special Study, and move to permitting and preliminary design phase.

Some Board discussion followed regarding the options. Mr. DePoe explained that additional details would be provided during the design and permitting phase, subsequent to conducting additional study.

MONTHLY FINANCIAL REVIEW

Ed Klein reviewed the May 2021 financial statement presentation, highlighting the variances between actual expenses and budgeted or forecasted expenses.

MONTHLY SYSTEMS OPERATIONS OVERVIEW

John Parsons reviewed the May 2021 Monthly Systems Overview report, noting the sodium hypochlorite generation system upgrade at Schantz Spring.

STAFF COMMENTS

Ed Klein reported that on June 30th the Authority will close on the Suburban Water Bond refinancing. The bond sale was highly successful and the interest rate was set at 0.94%.

SOLICITOR'S COMMENTS

Solicitor Gaul stated that he will not be in attendance at the July 12th Board meeting and will have Kevin Reid attend instead.

PUBLIC COMMENTS / OTHER COMMENTS

Jennifer McKenna, City of Allentown Office of Compliance, thanked the Board for having the hybrid meeting and allowing their office to participate remotely. She commented that the meeting was difficult to hear at times. Liesel Gross described the placement of the microphones, which may be the cause of the sound difficulties, and also pointed out the position of the camera that is in the back of the room. She noted that additional adjustments will be made over the next month to improve sound quality for the continued hybrid meeting format.

EXECUTIVE SESSION

An executive session will be held after the regular meeting to discuss matters of potential litigation and personnel.

ADJOURNMENT

There being no further business, the Chairman adjourned the meeting at 1:42 p.m.

Richard Bohner
Secretary



Lehigh County Authority

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MEMORANDUM

Date: July 26, 2021

To: Authority Board

From: Charles Volk, P.E., Chief Capital Works Officer &
Edward Hoyle, P.E., Capital Works Chief Engineer

Subject: Suburban Division – Upper System Pump Station and
Water Main Extension Project (Readington Farms)

MOTIONS /APPROVALS REQUESTED:

No.	Item	Amount
1	<u>Capital Project Authorization – Design Phase</u>	\$196,865
2	<u>Professional Services Authorization:</u> <u>Design Phase – Buchart Horn, Inc.*</u>	\$121,865

**Included in the Capital Project Authorization*

PROJECT BACKGROUND:

Readington Farms (“dairy”) is a proposed 273,000 square foot dairy products processing plant to be constructed at 8550 Main Street, Fogelsville (Upper Macungie Township). LCA was approached by the dairy in 2020 with a request for water service, and a conditional “will serve” letter was issued in September 2020 based on available water supply, subject to additional system evaluation and developer contribution for any necessary system improvements. Preliminary development plans were submitted by the developer’s engineer to Upper Macungie Township in June 2021. LCA’s consulting engineer performed a hydraulic analysis of the Upper System in 2020 and 2021, which incorporated current and projected water demands. Based on the findings of the hydraulic analysis, a new Central Lehigh Division (CLD) Lower System interconnection and extension under I-78 (via steel casing pipe to be acquired from Upper Macungie Township) and a new regional water booster station is the preferred alternative for meeting the water needs in the Upper System, based on current zoning and probability of additional development.

UPPER SYSTEM OVERVIEW:

The Central Lehigh Division Upper System is located north of I-78 and consists of two pressure zones – the 688’ zone and the 846’ zone, while the Lower System (south of I-78) is primarily

comprised of the 584' zone. The pressure zones are named according to their normal hydraulic grade line. The Upper System is supplied by Well Nos. 5, 6, and 17, along with the CLD Auxiliary Pump Station. Reservoir No. 1 is supplied from the 688' zone and controls the hydraulic grade line for that zone. The 846' zone is controlled by the Applewood Pump Station, which is located adjacent to the reservoir.

PROJECT OBJECTIVE:

The objective of this project is to supplement Upper System supply and pressure in order to meet the water needs of the dairy, and provide adequate capacity to serve future customers in the area. The new water main extension and regional pump station will also enhance system resilience and redundancy, in the event of operational issues with the CLD Auxiliary Pump Station or with the Upper System wells. The water demand figures provided by the dairy include a sustained demand of 335 gallons per minute (gpm) over an 8-hour production day, which was used in the capacity-based calculation to determine the pump station cost contribution from the developer. Based on planning module data and zoning mapping provided by Upper Macungie Township, the proposed pump station will have a design capacity of 1,000 gpm (1.44 million gallons per day). The dairy represents 33.5% of the station design capacity.

FINANCIAL:

The Project will be funded by the LCA Suburban Division, with cost contribution reimbursement from Readington Farms for 33.5% of the pump station cost and 100% of the water main extension cost, per the draft developer cost contribution agreement.

PROJECT STATUS:

A Request for Proposals was issued on June 28, 2021 to three pre-qualified engineering firms. The firms were selected based on their prior project experience with LCA, design expertise with water pumping stations, and ability to satisfy an aggressive design phase schedule. Proposals were received on July 15, 2021 and were reviewed by Capital Works staff.

THIS APPROVAL: Design Phase

PROPOSALS:

The three consulting firms along with their respective proposal amounts appear in Table 1 below:

Table 1 – Proposal Results	
Design & Bid Phase Upper System PS	
Consultant	Amount
<i>Buchart Horn, Inc.</i>	<i>\$121,865</i>
Gannett Fleming, Inc.	\$184,980
Whitman, Requardt, and Associates, LLP	\$318,957

The recommendation of this memorandum is authorization to award the work to Buchart Horn. Buchart Horn has completed numerous similar projects for clients in the mid-Atlantic region, and has the depth of professional expertise and in-house manpower availability to satisfy the

aggressive schedule. Buchart Horn was the design and construction phase engineer for the Buss Acres Pump Station Upgrade Project, and the firm provided excellent service and has been responsive to LCA needs. The firm is well qualified to perform the scope of work.

MATERIAL PROCUREMENT: N/A

PROFESSIONAL SERVICES:

Buchart Horn's services consist of the following scope:

Task 1 – Preliminary Design Concept

- Attend kickoff meeting with LCA
- Conduct field investigations and review system hydraulics
- Determine pump station site
- Identify all easement requirements and delineate easements
- Identify all applicable zoning requirements and setbacks
- Confirm system pressure and flow data, determine pump sizing, evaluate PPL requirements, evaluate generator requirements, evaluate enclosure/building requirements, and identify all local zoning issues/restrictions
- Prepare technical memorandum (basis of design) from above evaluations
- Attend concept review meeting with LCA

Task 2 – 60% Design Submission

- Prepare Engineer's Design Report
- Perform geotechnical investigation
- Prepare technical specifications for major equipment
- Prepare 60% level drawings and cost estimate
- Submit DEP Public Water Supply Permit application and all attachments
- Submit Upper Macungie Township zoning application(s)
- Submit LCCD E&S permit application

Task 3 – 95% Design Submission

- Prepare complete final project specifications
- Prepare 95% level drawings and cost estimate
- Address all regulatory agency permit application review comments and concerns
- Design instrumentation and process control equipment
- Develop detailed sequence of construction specifications

Task 4 – Final Design (bid level) Submission

- Incorporate all LCA final technical review comments
- Prepare bid level plans and specifications
- Prepare final design opinion of probable cost

Task 5 – Permitting Services

- Prepare and secure DEP PWS Permit
- Prepare Lehigh County Conservation District E&S application
- Prepare relevant Upper Macungie Township Zoning applications

SCHEDULE

Assuming approval at the July 26, 2021 Board meeting, design phase will begin immediately with the milestones of the DEP Public Water Supply permit submission in November 2021 and final design completion in early 2022. Bid phase will commence following design completion in Q1 of 2022.

FUTURE AUTHORIZATIONS: Construction phase.

CAPITAL PROJECT AUTHORIZATION

PROJECT NO.:	SD-W-56	BUDGET FUND:	Suburban Div.\Water\Capital
PROJECT TITLE:	Upper System Pump Station and Water Main Extension Project	PROJECT TYPE:	
THIS AUTHORIZATION:	\$ 196,865	<input type="checkbox"/>	Construction
TO DATE (W/ ABOVE)	\$ 196,865	<input checked="" type="checkbox"/>	Engineering Design
		<input type="checkbox"/>	Equipment Purchase
		<input type="checkbox"/>	Amendment

DESCRIPTION AND BENEFITS:

Upper System Pump Station and Water Main Extension Project - Design Phase:

This project consists of providing design phase services for the installation of a new regional water booster station and water main extension in the CLD Upper System. The objective of the project is to supplement the Upper System supply and pressure in order to meet the water needs of Readington Farms dairy, and provide adequate capacity to serve future customers in the area. The new water main extension and regional pump station will also enhance system resilience and redundancy, in the event of operational issues with the CLD Auxiliary Pump Station or with the Upper System wells.

Previous Authorizations	
<i>none</i>	

REQUESTED THIS AUTHORIZATION	
Design Phase	
Staff	\$50,000
Professional Services:	
Design Phase Services - Buchart Horn, Inc.	\$121,865
Contingency	\$25,000
Total this Authorization	\$196,865

Future Authorization	
Construction Phase (preliminary estimate)	\$1,600,000

Total Estimated Project	\$1,800,000
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REVIEW AND APPROVALS:

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



Lehigh County Authority

1053 Spruce Road * P.O. Box 3348 * Allentown, PA 18106-0348
(610)398-2503 * FAX (610)398-8413

PROFESSIONAL SERVICES AUTHORIZATION

Professional: Buchart Horn, Inc.
2 Eves Drive, Suite 110
Marlton, NJ 08053-3127

Date: July 26, 2021

Requested By: Charles Volk

Approvals
Department Head: _____
Chief Executive Officer: _____

Suburban Division – Upper System Pump Station and Water Main Extension Project

Previous Authorizations: none

This Authorization: Design Phase - \$121,865

Buchart Horn will provide engineering related services for the aforementioned project, consisting of the following tasks:

Professional Services
1. Attend Kickoff and Progress meetings
2. Prepare basis of design engineer’s report for pump station
3. Delineate easement requirements and incorporate UMT zoning requirements into site plans; prepare zoning application(s)
4. Perform geotechnical investigation
5. Prepare E&S permit application and submit to LCCD
6. Prepare design drawings and specifications
7. Prepare, submit and secure DEP Public Water Supply permit
8. Prepare opinion of probable construction cost at 60% design, 90% design, and final design
9. Prepare bid documents and provide bid phase administration
10. Prepare conformed documents including all addenda, awarded bid documents and executed contracts

Cost Estimate (not to exceed without further authorization): **\$ 121,865**

Time Table and Completion Deadline: As required to meet design timeline requirements

(For Authority Use Only)

Authorization Completion:

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



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MEMORANDUM

Date: July 26, 2021

To: Lehigh County Authority Board

From: Jason Peters, Capital Works Project Coordinator and
Charles Volk, P.E., Chief Capital Works Officer

Subject: Suburban Division – Western Lehigh Interceptor Manhole
Rehabilitation Project (Phase 2)

MOTIONS /APPROVALS REQUESTED:

No.	Item	Amount
1	<u>Capital Project Authorization – Construction Phase</u>	\$177,740
2	<u>Contract Award (construction):</u>	\$139,620
*	General Construction – Scheuermann Excavating, Inc.	
3	<u>Professional Services Authorization:</u>	\$15,120
*	<u>Construction Inspection – Keystone Consulting Engineers</u>	

() Included in the Capital Project Authorization*

PROJECT BACKGROUND:

Per Act 537 requirements and Regional Flow Management Strategy (RFMS) program, LCA and the LCA Signatories are required to reduce infiltration and inflow (I & I) into the Western Lehigh Interceptor system and eliminate SSOs. The RFMS commits LCA to reducing a defined quantity of excess wet weather flows into the Western Lehigh Interceptor (WLI), and this project should help in achieving that objective. This work is the second phase of a manhole rehabilitation program along the WLI to upgrade and seal manholes.

PROJECT OVERVIEW:

An inspection of WLI manholes was performed by Arcadis in 2015, and manholes with active and potential leaks were identified. In 2019 Arcadis performed an updated inspection of manholes identified with deficiencies from their 2015 report. In early 2021 (following the December 2020 flooding event), both Capital Works and Keystone Consulting Engineers (KCE) performed an updated inspection of all WLI manholes in Upper and Lower Macungie Townships. These inspections revealed numerous additional deficiencies including:

- Offset or loose frames and covers
- Damaged frames and covers
- Damaged/cracked/missing exterior concrete
- Manholes inundated with floodwater during and after significant storm events

The rehabilitation work proposed in this project includes the following:

- Raise manhole tops to at or above the floodplain elevation (up to 2' elevation adjustment) and repair concrete– 12 each
- Install new water-tight frames and covers – 49 each

The flood-proofing work to be performed in this project should have a positive impact on reducing infiltration and inflow from manholes and help mitigate sanitary sewer overflows in the Western Lehigh Interceptor. An early 2021 field inspection performed by KCE and Capital Works found that prior rehabilitation efforts from Phase 1 in 2020 have provided a lasting wet weather infiltration and inflow prevention.

FINANCIAL:

The Project will be funded by the LCA Suburban Division.

PROJECT STATUS

Design was completed in late Spring 2021 and the project was advertised for bid in June 2021. Bids were opened on 7/7/21. The bids were reviewed by Capital Works staff.

THIS APPROVAL: Construction Phase

BIDS

Three contractors submitted a bid for this project; results are summarized as follows in Table 1 below:

Table 1 – Bid Results	
Construction Phase	
Contractor	Total Bid Amount
Scheuermann Excavating, Inc.	\$139,620
Anrich, Inc.	\$189,600
Joao & Bradley Construction Co., Inc.	\$274,200

Scheuermann Excavating, Inc., based in Whitehall PA, has performed numerous sewer system construction projects, and also has completed similar work in LCA’s wastewater collection systems. The contractor is well qualified to perform the scope of work and the bid documents are complete. Capital Works recommends award of the WLI Manhole Rehabilitation Project Phase 2 to Scheuermann Excavating, Inc.

MATERIAL PROCUREMENT: N/A

PROFESSIONAL SERVICES :

Capital Works will perform the day-to-day construction management and administration duties. Keystone Consulting Engineers will provide the following construction phase services:

- Provide part time inspection services

- Prepare daily inspection reports
- Verify daily job quantities
- Document installation (post construction photos)
- Attend progress meetings as required
- Prepare and verify punchlist completion

SCHEDULE

Assuming approval at the July 26, 2021 board meeting, the work is anticipated to be started in September and will be completed by the end of the year.

FUTURE AUTHORIZATIONS

It is anticipated that a third phase of manhole rehabilitation further downstream along the WLI will be bid and constructed next year.

CAPITAL PROJECT AUTHORIZATION

PROJECT NO.:	SD-S-3	BUDGET FUND:	Suburban Div\Wastewater\Capital
PROJECT TITLE:	Suburban Division – Western Lehigh Interceptor Manhole Rehabilitation Project (Phase 2)	PROJECT TYPE:	
THIS AUTHORIZATION:	\$177,740	<input checked="" type="checkbox"/>	Construction
TO DATE (W/ ABOVE)	\$200,140	<input type="checkbox"/>	Engineering Study
		<input type="checkbox"/>	Equipment Purchase
		<input type="checkbox"/>	Amendment

DESCRIPTION AND BENEFITS:

WLI Manhole Rehabilitation Project:

This project is part of the continuing effort to reduce inflow and infiltration and mitigate SSOs in the Western Lehigh Interceptor service area and involves performing flood-proofing and leak repairs at key deficient manholes along the WLI. The rehabilitation work proposed in this project includes the following:

- Raise manhole tops to at or above the floodplain elevation (up to 2’ elevation adjustment)
- Install new water-tight bolt down frames and covers
- Repair broken or missing concrete

The work to be performed in this project will have a positive impact on reducing infiltration and inflow leakage from manholes in the Western Lehigh Interceptor.

Previous Authorizations	
Design Phase (Phase 2)	\$24,400

REQUESTED THIS AUTHORIZATION	
Construction Phase	
Construction Contract – Scheuermann Excavating, inc.	\$139,620
Construction Inspection Services – Keystone Consulting Engineers	\$15,120
Staff	\$8,000
Contingency	\$13,000
Total This Authorization	\$177,740

Future Authorization	
Phase 3 WLI manhole rehabilitation project	TBD

REVIEW AND APPROVALS:

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



Lehigh County Authority

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PROFESSIONAL SERVICES AUTHORIZATION

Professional: KEYSTONE CONSULTING ENGINEERS, INC.
One East Broad St., Suite 310
Bethlehem, PA 18018

Date: July 26, 2021

Requested By: Charles Volk

Approvals

Department Head: _____

Chief Executive Officer: _____

Description of Services:

WLI Manhole Rehabilitation Project Phase 2: Construction Inspection Services

Keystone Consulting Engineers, Inc. will perform construction phase inspection services for the construction of the WLI Manhole Rehabilitation Project Phase 2, in accordance with their proposal dated June 17, 2021. The scope of services includes the following:

Professional Services
1. Attend pre-construction conference
2. Perform part time construction inspection & verification
3. Provide daily inspection reports
4. Maintain post construction photo documentation
5. Review payment applications & change order requests
6. Perform substantial & final completion inspections

Cost Estimate (not to be exceeded without further authorization): \$15,120

Time Table and Completion Deadline: Assumes work will be substantially complete by winter 2021.

(For Authority Use Only)

Authorization Completion:

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

FINANCE & ADMINISTRATION

ACTION ITEMS

DISCUSSION ITEMS

INFORMATION ITEMS

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

2-Jun-21			Gross	Date of	Date	Net Rate
Fund	Bank	Location	Amount	Purchase	Due	%
WW Capac	The Washington Trust Company of Westerly	Westerly, RI	245,000.00	4/21/21	5/21/23	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

Developments

Water system construction is occurring in the following developments:

- 1047 Cetronia Road, 8-unit apartment building, UMT
- 5420 Crackersport Road, 1 commercial lot, UMT
- 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
- Hidden Meadows, Phase 2, 86 townhouse units (sfa), UMT
- Lehigh Hills, Lot 5 Phase 2, 240 residential units (sfd.), UMT
- Lehigh Hills Townhouses, 24 townhouse units (sfa), UMT
- Schaefer Run Commons – Phase 2, 96 residential units (sfd), UMT - New
- Shepherds Corner, 1 commercial lot, LMT

Water system plans are being reviewed for the following developments:

- 749 Route 100, 1 industrial lot with warehouse, UMT
- 5329-5347-5357 Hamilton Blvd., 1 commercial lot, LMT
- ABE Doors & Windows Redevelopment, 1 commercial lot, LMT
- ATAS International, 1 industrial lot, UMT
- Estates at Maple Ridge, 30 residential units (sfd), UMiIT
- Laurel Field, Phase 5, 25 townhouses, UMT
- Madison Village at Penn’s View, 66 manufactured homes, 1 lot, water and sewer, LynnT
- Mertztown Residential Subdivision, 264 sf units & 136 townhouse units, LMT
- Mosser Road Subdivision, 10 sf units, UMT - New
- Mountain View Estates, 27 residential units (sfd), LMT
- Parkland Crossing (formerly 1224 Weilers Rd Twins), 144 townhouse units, UMT

Ridings at Parkland – Phase 2, 38 residential units (sfd), NWT
Sauerkraut Lane Extension – Roadway & water line extension, LMT
Self-Storage Facility – Cedarbrook Road – 1 Commercial Lot, LMT
Schoeneck Road, Lot 1, 1 lot warehouse, LMT
Sheetz – Cetronia Road, 1 commercial lot, UMT
The Annex at Fields at Indian Creek, 22 S.F. residential units, Emmaus Borough
Towneplace Suites by Marriott, 91-room hotel, UMT
West Hills Business Center-Bldg H – 1 Commercial Lot, Weisenberg T

Sewage Facilities Planning Modules Reviewed in Prior Month:

Timberidge Apartments, NWT, 16,800 gpd.
Lehigh County Humane Society, Allentown, 378 gpd.
Main Street Commons, Macungie, 9,985 gpd.
A Duie Pyle, Inc Warehouse, Hanover, 476 gpd.
St Luke's Mother Baby Pavilion, Allentown, 5,114 gpd.
Vynecrest Winery, UMT, 963 gpd.

WATER

ACTION ITEMS

1. **Suburban Division – Upper System Pump Station and Main Extension Design Phase Authorization – July 26, 2021**

Based on current and future demand for water service in the Upper System portion of the Central Lehigh Division, LCA's water system engineer, Gannett Fleming, has run various scenarios in the hydraulic model to simulate the impacts of this expected growth. The preferred alternative to increase water capacity and system resiliency in the Upper System is a system extension under Interstate-78 just west of Fogelsville and a new water booster station, which will supplement existing well supplies and pumping capacity in this area of the water system. Due to the near-term requirements of an industrial development slated to be constructed within the next two years in this area, the project will need to move forward immediately. A Request for Proposals was issued to three pre-qualified engineering firms for design of the Upper System pump station and main extension. Board approval of design phase services will be requested at the July 26, 2021 Board meeting.

2. **Readington Farms – Developer Cost-Sharing & Water System Contribution Agreement – August date TBD**

Readington Farms is a proposed dairy processing facility to be constructed at 8550 Main Street, Fogelsville (Upper Macungie Township). LCA was approached with a request for water service and issued a conditional "will serve" letter in September 2020 based on available water supply, but subject to additional system evaluation and agreement on any necessary facility enhancements. Preliminary development plans were submitted to the Township by the developer's engineer in June 2021. Upon review by LCA's consulting engineer and staff, a water system extension and booster pump station will be required to meet the developer's needs. Further considerations include location with the Central Lehigh Division's Upper System; water supply constraints within the Upper System; and likelihood of additional development in this area based on current zoning. Based on this evaluation, a regional pump station is recommended, with the developer contributing a proportionate share of the cost based on water requirements for the project. A draft developer cost-sharing & water system contribution agreement will be reviewed with the Board in August.

DISCUSSION ITEMS

INFORMATION ITEMS

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

The High Service Pumping System (HSPS) at the WFP is the primary means of conveying treated water into the distribution system. The HSPS has experienced regular failures from aging electrical components in recent years. 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 to the constant speed pump. Design phase was completed in late 2020. LCA submitted a funding application and supporting documentation to PennVEST in early November 2020, which was approved in January 2021. Construction phase of the project was approved at the 3/22/2021 Board meeting. In May 2021, PennVEST granted consent to proceed with construction prior to closing on the loan, which will follow completion of construction in 2022. Notices to Proceed have been issued to the two contractors. **(No Change)**

2. **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. As of April 2021, construction is more than 96% complete. The contractors are addressing the remaining punch list items. The station went on-line on 11/19/20. **(No Change)**

3. **Suburban Division – Watershed Monitoring Program**

The project involves construction of 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. Project update meetings with SSM and USGS will be conducted in May and July 2021. Further updates will be provided after those meetings. **(No Change)**

4. **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 90% complete. Equipment delivery delays from the pre-cast building manufacturer have slowed the progress of this project. Substantial completion is anticipated to be in July 2021, with start-up operations scheduled for June and July 2021.

5. **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 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 in final closeout. **(No Change)**

6. **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 has been completed with positive results. Test Well 2 is more productive than the existing source for the system (Well 1). A sustained aquifer test of Well 2 was performed in March; however, an unpredicted heavy rainfall event invalidated the test. Another aquifer test will be completed as soon as hydrogeologic conditions are favorable, with DEP permitting to follow. **(No Change)**

7. **Allentown Division – 36" DI Water Main Condition Assessment**

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 work was performed on December 14-15, 2020. A draft report is in-hand and LCA is working with the contractor towards finalization. Final report is expected in July.

8. **Suburban Division – Fixed Base Meter Reading Stations**

The project focuses on securing land development and zoning approvals to construct eight fixed base water meter reading stations located throughout the Suburban Division water service area. The land development and zoning approvals will allow for the future construction of the stations as part a program to transition to a centralized advanced metering infrastructure system which will provide more consistent, timely and accurate billing to the customers. LCA will conduct additional investigatory work to refine construction costs and identify all zoning restrictions and limitations with the prospective tower sites, and present that information to the Board at a future date. **(No Change)**

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

The project is for the annual replacement of aged and/or failing cast iron water mains 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 in 2019 following City Compliance office acceptance of the Cycle 5 main replacement prioritization, pending available funding. LCA restarted Cycle 5 design phase for construction in 2021 of a water main replacement project. As of November 2020, LCA began the process of negotiations for cost sharing agreement with the City for road surface restoration. In December 2020 LCA formally submitted the substantially complete plans and specifications to the City for approval, and City comments were reviewed on January 19, 2021. The project was advertised for bid on March 1, 2021, pre-bid meeting was held on March 17, 2021, and bids opened on March 31, 2021. The Board authorized the construction phase of this project at the April 12, 2021 LCA Board meeting. It is anticipated that construction will begin mid-July 2021. **(No Change)**

10. **Allentown Division – Water Filtration Plant: 2021 Indenture Upgrades – Construction Phase Authorization**

As a condition of the financing of LCA's up-front concession payment to the City, LCA entered into a Trust Indenture with the Manufacturers and Traders Trust Company that requires the preparation of an annual Consulting Engineer's Report (Report). The Report, which is prepared each year by Arcadis, documents the condition of the water and wastewater facilities (KIWWTP and WFP) based on physical inspections by the engineer, identifies repairs and upgrades required, and reflects progress made in addressing deficiencies. This project consists of addressing structural deficiencies at the Water Filtration Plant, with work located at various

concrete structures in exterior areas. D'Huy Engineering completed design in February 2021, the project was advertised for bid in late March 2021, and bids were opened on April 22, 2021. Award of bids and construction phase authorization was approved at the May 10, 2021 LCA Board meeting. **(No Change)**

11. **Suburban Division – Arcadia West Water Storage Tank Replacement - Construction Phase Authorization**

The Arcadia West water storage tank has had several leaks in recent years and the coating system has reached the end of its useful life. A condition assessment study was done in 2019 which determined that the most cost-effective solution is to replace the aging tank with a new concrete tank. This project is for the replacement of the existing steel tank with a new tank of the same size, demolition of the existing tank, and miscellaneous yard piping and site work. Entech Engineering completed design in March 2021, the project was advertised for bid in late March 2021, and bids were opened on April 22, 2021. A Notice of Award was issued to the contractor following approval at the May 10, 2021 LCA Board meeting and the Notice to Proceed was issued in June 2021.

WASTEWATER

ACTION ITEMS

1. **Suburban Division – Western Lehigh Manhole Rehabilitation Project – Phase 2 Construction Phase Authorization – July 26, 2021**

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 in close proximity to the floodway, which experience floodwater inundation. The purpose of the project is to eliminate floodwater inflow into the system. The project scope for Phase 1 included 50 manholes that were rehabilitated in 2020 as part of a phased manhole rehabilitation program. The Phase 1 project construction was completed in early 2021. Phase 2 of the WLI Manhole Rehabilitation Project, which includes a similar scope with manholes moving downstream in the WLI drainage basin, was advertised for bid in June 2021, with construction phase authorization to be requested at the July 26, 2021 Board meeting.

DISCUSSION ITEMS

INFORMATION ITEMS

1. **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 Plant 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. A preliminary report is expected by early July 2021.

2. **Suburban Division – Western Lehigh Service Area: Revenue Planning Tool**

As part of the long-term Act 537 planning process, a revenue planning tool is required to help predict the impact of proposed system modifications in the Western Lehigh Service Area. This tool will simulate financial impacts based on current and future flows and loads and utilizing the terms of existing inter-municipal agreements. For the alternatives being evaluated by LCA's engineering consultants for potential upgrade of the Pretreatment Plant to full treatment, the revenue planning tool will simulate changes in future flows and loads and general financial analyses to assist with decision-making regarding these alternatives. Prior phases of this work were completed in 2019 and 2020 to review the assumptions and parameters required to develop the financial model. Authorization for Phase 2 (development of the actual revenue planning tool) was approved at the 12/14/2020 Board Meeting. Final tool delivery is expected in July 2021.

3. **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. 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 June 2021, the main tasks are completed and the Rain Derived I&I (RDII) analysis discussions have occurred with the LCA Partners. This project is now complete.

4. **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 retained and full authorization was granted at the 5/11/2020 Board meeting. A presentation was presented to the Board at the 8/10/20 Board Meeting. Various modeling alternatives are still ongoing and the full model results will be available by the third quarter of 2021. The project is funded by the LCA Suburban Division.

5. **Suburban Division - Trexlertown Area Capacity Solution Alternative**

As part of the Interim Act 537 Plan that was approved by DEP in June 2021, 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. An alternative concept also studied to focus on providing storage capacity in the system for this area, due to concerns about downstream hydraulic impacts. These two alternatives were studied by HDR as authorized by the Board in 2019, with results indicating downstream impacts and long construction timelines due to location in environmentally sensitive areas. A third alternative has been developed which includes bypass pumping from a location at the Industrial Pretreatment Plant to a location in the Upper Macungie Township interceptor which has capacity for the additional flows, thereby relieving this bottleneck. This third alternative has been modeled successfully by Arcadis showing minimal downstream impact and a significant reduction of overflows in the Trexlertown area. An overview of these alternatives was provided to the Board in June 2021. Next steps include discussion with DEP regarding the needs for a special study and any additional Act 537 planning work that may be necessary to support permitting for this project.

6. **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. On April 10, 2021, LCA conducted a limited manned inspection 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. A draft report is in-hand and LCA staff is currently working with our consultant to finalize the report. **(No Change)**

7. **Suburban Division – Park Pump Station Phase 2 Upgrade**

The Park Pump Station Phase 1 Upgrade was completed in early 2020, and consisted of new pumps, new pump control center with variable frequency drives, new automatic transfer switch, new wet well level control system, upgraded HVAC system, roof replacement, new pump removal access hatch, new pump hoist system, and associated mechanical and instrumentation equipment. The existing 40-year old generator does not have the capacity to handle the full loads of the upgraded station at 100% design flow and is at the end of its useful life. The Phase 2 Upgrade project consists of replacement of the original station backup generator system. The designer of record for the Phase 1 Upgrade was Whitman, Requardt & Associates, LLP (WRA). As WRA is already very familiar with the power systems and controls at the station, Capital Works requested a design phase proposal from the firm for the Phase 2 project. Authorization of design phase was granted at the March 22, 2021 Board meeting. Design is anticipated to be completed by the end of 2021. **(No Change)**

8. **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 will occur in late April and early May 2021. **(No Change)**

9. **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. A meeting was held at Lynn Township with DEP and township representatives in June 2019 to discuss the Lynn Township Corrective Action Plan 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)**

10. Suburban Division - Heidelberg Heights Consent Order & Agreement

On 2/11/19, DEP submitted a notice of violation to LCA regarding bypasses and permit exceedances at the Heidelberg Heights wastewater treatment plant. The 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 developed a Corrective Action Plan (CAP) which was submitted DEP in April 2019. In addition, the Heidelberg Township Board of Supervisors adopted an updated sewer system rules and regulations ordinance in October 2019, which gives LCA the authority to inspect private laterals and facilities for unauthorized connections and perform follow-up enforcement. A Consent Order & Agreement (CO&A) was then approved by DEP and LCA in June 2020, which incorporates the projects and schedule outlined in LCA's proposed CAP. The first annual report was submitted to DEP per the CO&A requirements in late March 2021. **(No Change)**

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

In accordance with the Consent Order and Agreement (CO&A) executed by LCA and DEP, LCA is required to complete annual inflow and infiltration mitigation projects to eliminate hydraulic overloads and bypass events at the Heidelberg Heights wastewater treatment plant. The CO&A requires that all original vitrified clay sewer main and lateral pipe be replaced within the next five years. After rejecting the original bids that exceeded LCA's capital project construction budget in April 2020, the project scope was modified to reduce cost and the project was re-advertised for bid in June 2020. The Board authorized the construction phase on 7/27/2020. As of May 24, 2021 final completion of construction has occurred with a few remaining punch-list items needing to be addressed. **(No Change)**

12. Suburban Division – Heidelberg Heights 2021 Sanitary Sewer Replacement Project

In accordance with the Consent Order and Agreement (CO&A) executed by LCA and DEP, LCA is required to complete annual inflow and infiltration mitigation projects to eliminate hydraulic overloads and bypass events at the Heidelberg Heights wastewater treatment plant. The CO&A requires that all original vitrified clay sewer main and lateral pipe be replaced within five years. This year's sewer replacement project was advertised for bid on March 9, 2021, and bids were opened on March 31, 2021. Only two bids were received which significantly exceeded the engineer's estimate. The Board approved rejection of bids at the 4/26/21 Board meeting. The project will be expanded in scope re-bid later in 2021. **(No Change)**

13. 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 were implemented in 2020 for these sewage billing meters. Without this meter development program, the data cannot be used from these billing meters. A consulting engineer's professional service proposal was granted at the April 27, 2020 Board meeting. Costs associated with the development of the QA/QC 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. As of late June 2021, the flow metering program continues to utilize 22 existing sewer billing meters.

14. **Kline's Island Sewer System – Regional Sewer Capacity & Wet-Weather Planning: 2021 Model Expansion and Calibration**

The prior KISS sewer model from 2014 included only the City of Allentown and LCA/Western Lehigh municipalities. The primary goal of this work is to expand the sanitary sewer model into the surrounding Signatories (Coplay, Whitehall, North Whitehall, Hanover, South Whitehall, Salisbury, and Emmaus). Calibration of this expanded model to current flow characteristics will aid in the identification and evaluation of regional alternatives for solutions to both treatment and conveyance through the year 2050 Act 537 planning horizon (the LCA/Western Leigh portion of this model calibration work was completed in 2019 and 2020). The end result of this proposed work will provide one comprehensive, calibrated sewer model for the entire KISS system using 2021 temporary meter flow data and rainfall data. On February 22, 2021, Board approval was granted for this next phase of Act 537 planning efforts. The model is anticipated to be complete by June 2022. **(No Change)**

15. **Allentown Division – Sanitary Sewer Collection System: Rain Derived Inflow and Infiltration (RDII) Analysis**

The main goal of this work is to conduct an RDII analysis of storm events during the flow monitoring period to determine the nature and extent of infiltration and inflow (I&I) leakage, and to use hydrograph interpretation to help the City focus their rehabilitation work (both secondary Sanitary Sewer Evaluation Survey (SSES) investigations and rehabilitation efforts) toward the sources contributing the leakage. It will also be determined where the flow meters should be installed for the next monitoring period and where SSES future work should be completed. Data from approximately 43 temporary flow meters and five rain gauges from the 2021 flow metering program will be used for this analysis. The analysis itself will begin in late 2021 and will be concluded by March of 2022. On February 22, 2021, Board approval was granted for this project. **(No Change)**

16. **Kline's Island Sewer System – Act 537 Planning: 2021 Flow Data QA/QC**

As part of the Interim Act 537 Plan, the municipalities served by the Kline's Island Sewer System have committed to completing a sewage flow metering and modeling project beginning in 2021. The flow metering data will be used to prepare sewer modeling and identify the capital improvements needed to meet the future sewage capacity needs of the region through 2050. The flow metering program will include a mix of temporary meters (~63), existing sewage billing meters (~24), and various permanent, non-billing Signatory meters (~11). Flow metering services will be provided by Flow Assessment Services, as previously authorized in 2020. To ensure the data collected from the nine-month monitoring period are accurate and to ensure the validity of the resulting hydraulic model, a rigorous quality assurance and quality control program must be implemented. Approval of a consulting engineer's proposal for this work was granted at

the January 25, 2021 Board meeting. Costs associated with these services 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. The 2021 flow characterization study will be completed by October or November of 2021, with the first round of QA/QC concluded.

17. **Allentown Division – Sanitary Sewer Collection System: I&I Source Reduction Program Plan (Year 2)**

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 completed in 2020 and the last project finishing in 2024. Board approval for the construction phase was granted at the March 22, 2021 Meeting. Construction began in May 2021 and will be completed by November 2021. This project is considered an AO expense under terms of the Lease and is City funded. **(No Change)**

18. **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)**

19. **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 was resubmitted in late January 2021. Upon receipt of the Interim 537 Plan approval on 6/25/21, the permit submission will be slightly modified to correspond with a 44.6 MGD hydraulic re-rate. This project is considered an AO expense under terms of the Lease and is City funded.

20. **Allentown Division – Kline's Island WWTP: Sodium Hypochlorite System Installation Project – Construction Phase**

This project involves the replacement of the existing gaseous chlorination system at the Kline's Island Wastewater Treatment Plant (KIWWTP). The use of gaseous chlorine for effluent disinfection, while reliable, is outdated and creates significant public health and employee safety risks. In addition, the existing equipment has reached the end of its useful life. The 2018 KIWWTP Master Plan recommended abandoning gaseous chlorine and switching to (liquid) sodium hypochlorite. The design commenced in March of 2019 and was completed in early 2020. The project was advertised for bid in February 2020, construction phase was authorized at the 6/8/2020 meeting and the contractor mobilized in late summer 2020. The project is

anticipated to be completed in Summer of 2021. The project is funded by the LCA Allentown Division. **(No Change)**

21. Allentown Division – Kline's Island WWTP: 2021 Indenture Upgrades

As a condition of the financing of LCA's up-front concession payment to the City, LCA entered into a Trust Indenture with the Manufacturers and Traders Trust Company that requires the preparation of an annual Consulting Engineer's Report (Report). The Report, which is prepared each year by Arcadis, documents the condition of the water and wastewater facilities (KIWWTP and WFP) based on physical inspections by the engineer, identifies repairs and upgrades required, and reflects progress made in addressing deficiencies. This project consists of addressing structural deficiencies at KIWWTP, with work located at the Main Pump Station, Auxiliary Pump Station, Effluent Pump Station, and Plastic Media Trickling Filters. Work includes masonry repointing and restoration, door and window lintel replacement, concrete crack repair and resurfacing, and pipe painting. D'Huy Engineering completed design in February 2021, the project was advertised for bid in mid-March 2021, and bids were opened on April 19, 2021. Award of bids and construction phase authorization was approved at the May 10, 2021 LCA Board meeting. **(No Change)**

22. Allentown Division – Kline's Island WWTP: Solids Process Boiler and HVAC System Upgrade Project

The solids process boiler system is more than 25 years old and provides critical heat to the anaerobic digesters and solids dewatering and processing buildings. The equipment has reached the end of its service life, and replacement of the equipment is identified as a near-term (0 – 5 years) project priority in the KIWWTP Master Plan. This project includes replacement of the boilers and associated solids processing HVAC equipment. A preliminary engineering Basis of Design Report was prepared by GHD Engineering and submitted to the City Office of Compliance in January 2021. The City granted approval of the report in a letter dated 3/22/21 and the project is classified as a Major Capital Improvement. Approval of design phase engineering was granted at the May 24, 2021 LCA Board meeting. **(No Change)**

23. 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)**

**LEHIGH COUNTY AUTHORITY
FINANCIAL STATEMENTS
JUNE 2021**

LEHIGH COUNTY AUTHORITY
 FINANCIAL STATEMENTS - SUMMARY
 For the Period Ended June 30, 2021

	Consolidated Financial Statements														
	Month					Year To Date					FULL YEAR				
	Actual	Q2 FC	Prior Year	FC Var	PY Var	Actual	Q2 FC	Prior Year	FC Var	PY Var	Q2 FC	Budget	Prior Year	Bud Var	PY Var
Income Statement															
Suburban Water	(20,067)	(37,118)	278,909	17,051	(298,975)	360,987	199,232	712,136	161,755	(351,148)	842,455	183,548	379,997	658,907	462,458
Suburban Wastewater	421,092	231,100	64,258	189,992	356,834	1,763,244	1,763,000	3,349,007	244	(1,585,763)	1,863,600	1,175,879	2,685,692	687,721	(822,092)
City Division	(197,632)	(401,862)	(649,556)	204,230	451,924	2,074,532	1,053,952	(1,538,688)	1,020,580	3,613,220	187,639	865,692	(4,575,013)	(678,053)	4,762,652
Total LCA	203,394	(207,879)	(306,389)	411,274	509,783	4,198,763	3,016,184	2,522,454	1,182,579	1,676,309	2,893,694	2,225,119	(1,509,324)	668,575	4,403,018
Cash Flow Statement															
Suburban Water	(99,690)	(213,128)	(94,459)	113,438	(5,231)	(345,200)	(654,272)	(697,754)	309,072	352,554	(2,633,036)	(3,490,153)	(3,715,921)	857,118	1,082,886
Suburban Wastewater	235,710	15,500	225,018	220,210	10,692	(268,094)	(305,308)	1,203,672	37,214	(1,471,766)	3,082,070	2,321,828	398,089	760,243	2,683,981
City Division	(2,178,024)	(2,386,862)	(5,120,475)	208,837	2,942,451	5,979,243	4,941,905	456,732	1,037,337	5,522,511	1,146,081	4,663,547	2,036,183	(3,517,466)	(890,102)
Total LCA	(2,042,004)	(2,584,490)	(4,989,916)	542,485	2,947,912	5,365,949	3,982,326	962,650	1,383,623	4,403,299	1,595,116	3,495,222	(1,281,649)	(1,900,106)	2,876,764
Debt Service Coverage Ratio															
Suburban Water	1.13	1.01	1.88	0.11	(0.75)	1.35	1.22	1.39	0.13	(0.03)	1.37	1.20	1.24	0.17	0.13
Suburban Wastewater	13.48	10.27	7.88	3.21	5.60	11.40	11.36	16.27	0.03	(4.88)	9.15	8.17	12.48	0.97	(3.34)
City Division	1.33	1.16	1.27	0.17	0.06	1.79	1.64	1.67	0.14	0.12	1.57	1.62	1.55	(0.05)	0.03

**LEHIGH COUNTY AUTHORITY
CONSOLIDATED FINANCIAL STATEMENTS
For the Period Ended June 30, 2021**

	Consolidated Financial Statements															
	Month				Year To Date				Q2 FULL YEAR FORECAST				Full Year Budget			
	Sub W	Sub WW	City	LCA	Sub W	Sub WW	City	LCA	Sub W	Sub WW	City	LCA	Sub W	Sub WW	City	LCA
STATEMENTS OF ACTIVITIES																
Operating Revenues:																
User Charges	1,008,577	1,724,296	3,417,492	6,150,365	5,806,837	9,416,283	20,290,166	35,513,287	11,776,100	19,082,900	41,206,300	72,065,300	11,799,441	19,166,369	41,996,514	72,962,324
Connection & System Charges	136,908	39,787	148,313	325,008	415,471	441,527	1,360,623	2,217,620	1,045,900	1,030,300	4,135,900	6,212,100	912,039	865,588	3,947,981	5,725,607
Other Miscellaneous Revenues	4,140	15	14,597	18,752	26,705	1,820	43,335	71,860	35,200	1,700	61,000	97,900	30,944	628	59,249	90,821
Total Operating Revenues	1,149,625	1,764,098	3,580,402	6,494,124	6,249,013	9,859,630	21,694,125	37,802,767	12,857,200	20,114,900	45,403,200	78,375,300	12,742,423	20,032,585	46,003,744	78,778,752
Operating Expenses:																
Personnel	368,570	134,614	1,150,010	1,653,194	1,547,483	620,121	5,195,909	7,363,513	2,982,845	1,651,700	12,117,475	16,752,020	3,289,603	1,760,954	11,561,494	16,612,051
Shared Services - General & Administrative	56,783	10,129	123,181	190,093	261,256	104,656	759,643	1,125,555	593,100	173,700	1,642,900	2,409,700	663,734	155,415	1,739,417	2,558,565
Utilities	35,092	21,264	113,746	170,102	217,961	142,515	927,546	1,288,022	509,900	395,900	2,112,800	3,018,600	543,917	449,484	2,156,620	3,150,021
Materials and Supplies	47,559	8,196	172,807	228,562	184,736	70,436	689,022	944,194	531,100	386,500	1,672,500	2,590,100	501,582	500,563	1,765,642	2,767,787
Miscellaneous Services	312,743	536,030	152,546	1,001,319	1,682,019	2,993,201	562,341	5,237,561	3,450,600	6,199,800	1,791,200	11,441,600	3,564,076	6,358,021	1,979,996	11,902,093
Treatment and Transportation	-	230,000	-	230,000	-	1,719,218	5,813	1,725,030	-	3,761,000	8,000	3,769,000	-	3,977,539	12,000	3,989,539
Depreciation and Amortization	217,141	384,727	491,154	1,093,022	1,302,846	2,308,362	2,946,924	6,558,132	2,604,400	4,635,800	5,892,800	13,133,000	2,605,699	4,616,783	5,893,862	13,116,343
Major Maintenance Expenses	483	2,972	192,171	195,627	3,118	62,113	239,109	304,340	2,300	869,900	2,546,500	3,418,700	3,400	1,000,000	2,652,924	3,656,324
Other Miscellaneous	2,321	-	-	2,321	6,107	-	-	6,107	48,000	32,000	8,000	88,000	74,864	46,422	13,972	135,258
Total Operating Expenses	1,040,691	1,327,933	2,395,615	4,764,239	5,205,525	8,020,621	11,326,307	24,552,453	10,722,245	18,106,300	27,792,175	56,620,720	11,246,874	18,865,181	27,775,927	57,887,982
Net Operating Profit	108,934	436,165	1,184,787	1,729,885	1,043,487	1,839,009	10,367,818	13,250,314	2,134,955	2,008,600	17,611,025	21,754,580	1,495,549	1,167,404	18,227,817	20,890,770
Non-Operating Income (Expense)																
Interest Income	4,159	7,450	316	11,925	24,516	48,293	3,124	75,933	60,200	84,900	110,500	255,600	94,327	190,471	172,960	457,758
Interest (Expense)	(131,303)	(15,541)	(1,382,735)	(1,529,579)	(701,156)	(93,650)	(8,296,410)	(9,091,215)	(1,345,600)	(187,800)	(17,533,886)	(19,067,286)	(1,406,328)	(181,995)	(17,535,086)	(19,123,409)
Other Miscellaneous	(1,856)	(6,981)	-	(8,837)	(5,861)	(30,408)	-	(36,268)	(7,100)	(42,100)	-	(49,200)	-	-	-	(65,151)
Net Non-Operating Income (Expense)	(129,000)	(15,072)	(1,382,419)	(1,526,491)	(682,500)	(75,765)	(8,293,286)	(9,051,551)	(1,292,500)	(145,000)	(17,423,386)	(18,860,886)	(1,312,001)	8,475	(17,362,125)	(18,665,651)
Net Income (Loss)	(20,067)	421,092	(197,632)	203,394	360,987	1,763,244	2,074,532	4,198,763	842,455	1,863,600	187,639	2,893,694	183,548	1,175,879	865,692	2,225,119
CASH FLOW STATEMENT																
Cash Flows From Operating Activities																
Operating Revenues	1,149,625	1,764,098	3,580,402	6,494,124	6,249,013	9,859,630	21,694,125	37,802,767	12,857,200	20,114,900	45,403,200	78,375,300	12,742,423	20,032,585	46,003,744	78,778,752
Operating Expenses (ex D&A)	(823,550)	(943,206)	(1,904,461)	(3,671,217)	(3,902,679)	(5,712,259)	(8,379,383)	(17,994,321)	(8,117,845)	(13,470,500)	(21,899,375)	(43,487,720)	(8,641,176)	(14,248,398)	(21,882,064)	(44,771,639)
Non-Cash Working Capital Changes	122,032	(34,258)	2,681,429	2,769,202	(633,648)	(1,570,903)	1,581,320	(623,231)	(19,444)	1,069,456	(1,380,681)	(330,689)	3,418	(0)	50,001	53,419
Net Cash Provided by (Used in) Operating Activities	448,106	786,633	4,357,370	5,592,109	1,712,686	2,576,467	14,896,061	19,185,214	4,719,911	7,713,856	22,123,144	34,556,911	4,104,666	5,784,186	24,171,680	34,060,532
Cash Flows From Financing Activities																
Capital Contributions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds New Borrowing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,000,000	2,000,000
Interest Payments	(3,506)	(12,699)	(5,772,543)	(5,788,749)	(699,709)	(85,023)	(5,772,543)	(6,557,275)	(1,406,328)	(181,995)	(11,565,086)	(13,153,409)	(1,406,328)	(181,995)	(11,565,086)	(13,153,409)
Principal Payments	(31,511)	(45,693)	-	(77,204)	(188,226)	(273,257)	-	(461,483)	(2,092,818)	(549,034)	(2,660,831)	(5,302,683)	(2,092,818)	(549,034)	(2,660,831)	(5,302,683)
Net Cash Provided by (Used in) Financing Activities	(35,017)	(58,392)	(5,772,543)	(5,865,953)	(887,935)	(358,280)	(5,772,543)	(7,018,758)	(3,499,146)	(731,029)	(14,225,917)	(18,456,093)	(3,499,146)	(731,029)	(12,225,917)	(16,456,092)
Cash Flows from Capital and Related Activities																
Non-Operating Income (Expenses)	(1,856)	(6,981)	-	(8,837)	(5,861)	(30,408)	(615,300)	(651,568)	(7,100)	(42,100)	(1,230,600)	(1,279,800)	-	-	(1,230,600)	(1,230,600)
Capital Expenditures, net	(270,082)	-	(763,167)	(1,033,249)	(1,188,289)	(1,516,167)	(2,532,099)	(5,236,555)	(4,151,600)	(3,448,557)	(5,631,046)	(13,231,203)	(4,190,000)	(2,921,800)	(6,224,576)	(13,336,376)
Net Cash Provided By (Used In) Capital and Related Activities	(271,937)	(6,981)	(763,167)	(1,042,086)	(1,194,149)	(1,546,574)	(3,147,399)	(5,888,123)	(4,158,700)	(3,490,657)	(6,861,646)	(14,511,003)	(4,190,000)	(2,921,800)	(7,455,176)	(14,566,976)
Cash Flows From Investing Activities																
Investments Converting To Cash	-	-	-	-	244,682	1,484,000	-	1,728,682	244,700	1,484,000	-	1,728,700	-	-	-	-
Purchased Investments	(245,000)	(493,000)	-	(738,000)	(245,000)	(2,472,000)	-	(2,717,000)	-	(1,979,000)	-	(1,979,000)	-	-	-	-
Interest Income	4,159	7,450	316	11,925	24,516	48,293	3,124	75,933	60,200	84,900	110,500	255,600	94,327	190,471	172,960	457,758
Net Cash Provided By (Used In) Investing Activities	(240,841)	(485,550)	316	(726,075)	24,199	(939,707)	3,124	(912,385)	304,900	(410,100)	110,500	5,300	94,327	190,471	172,960	457,758
FUND NET CASH FLOWS	(99,690)	235,710	(2,178,024)	(2,042,004)	(345,200)	(268,094)	5,979,243	5,365,949	(2,633,036)	3,082,070	1,146,081	1,595,116	(3,490,153)	2,321,828	4,663,547	3,495,222
DEBT SERVICE RATIO																
Debt Service Ratio (Indenture Based)																
Total Operating Revenues	1,008,577	1,724,296	3,417,492	6,150,365	5,806,837	9,416,283	20,290,166	35,513,287	11,776,100	19,082,900	41,206,300	72,065,300	11,799,441	19,166,369	41,996,514	72,962,324
Total Operating Expenses (Cash Based)	(823,550)	(943,206)	(1,904,461)	(3,671,217)	(3,902,679)	(5,712,259)	(8,379,383)	(17,994,321)	(8,117,845)	(13,470,500)	(21,899,375)	(43,487,720)	(8,641,176)	(14,248,398)	(21,882,064)	(44,771,639)
Interest Income	4,159	7,450	316	11,925	24,516	48,293	3,124	75,933	60,200	84,900	110,500	255,600	94,327	190,471	172,960	457,758
Annual Lease Payment (City)	-	-	(102,550)	(102,550)	-	-	(615,300)	(615,300)	-	-	(1,230,600)	(1,230,600)	-	-	(1,230,600)	(1,230,600)
Total Non-Operating Revenues (Expenses)	139,192	32,821	162,910	334,923	436,315	412,939	1,403,958	2,253,212	1,074,000	989,900	4,196,900	6,260,800	942,983	866,216	4,007,230	5,816,428
Cash Available For Debt Service	328,377	821,360	1,573,707	2,723,445	2,364,989	4,165,256	12,702,566	19,232,810	4,792,455	6,687,200	22,383,725	33,863,380	4,195,575	5,974,657	23,064,040	33,234,271
Interest Paid	117,194	15,166	963,757	1,096,117	703,164	90,998	5,782,543	6,576,705	1,406,328	181,995	11,565,086	13,153,409	1,406,328	181,995	11,565,086	13,153,409
Debt Retirement (Principal Payments)	174,402	45,753	221,736	441,890	1,046,409	274,517	1,330,416	2,651,342	2,092,818	549,034	2,660,831	5,302,683	2,092,818	549,034	2,660,831	5,302,683
Total Debt Service	291,596	60,919	1,185,493	1,538,008	1,749,573	365,515	7,112,959	9,228,046	3,499,146	731,029	14,225,917	18,456,093	3,499,146	731,029	14,225,917	18,456,092
Debt Service Ratio	1.13	13.48	1.33	1.77	1.35	11.40	1.79	2.08	1.37	9.15	1.57	1.83	1.20	8.17	1.62	1.80

LEHIGH COUNTY AUTHORITY
FINANCIAL STATEMENTS - SUBURBAN WATER
For the Period Ended June 30, 2021

STATEMENTS OF ACTIVITIES	Suburban - Water														
	Month					Year To Date					Full Year				
	Actual	Q2 FC	Prior Yr	FC Var	PY Var	Actual	Q2 FC	Prior Yr	FC Var	PY Var	Q2 FC	Budget	Prior Yr	Bud Var	PY Var
Operating Revenues:															
User Charges	1,008,577	927,000	850,552	81,577	158,025	5,806,837	5,634,100	5,039,983	172,737	766,854	11,776,100	11,799,441	10,866,675	(23,341)	909,425
Connection & System Charges	136,908	138,000	323,616	(1,092)	(186,708)	415,471	342,900	402,568	72,571	12,902	1,045,900	912,039	860,596	133,861	185,304
Other Miscellaneous Revenues	4,140	2,000	1,535	2,140	2,605	26,705	15,200	10,645	11,505	16,060	35,200	30,944	105,508	4,256	(70,308)
Total Operating Revenues	1,149,625	1,067,000	1,175,702	82,625	(26,078)	6,249,013	5,992,200	5,453,196	256,813	795,816	12,857,200	12,742,423	11,832,779	114,777	1,024,421
Operating Expenses:															
Personnel	368,570	347,118	311,311	(21,452)	(57,259)	1,547,483	1,526,068	947,660	(21,415)	(599,823)	2,982,845	3,289,603	2,653,747	306,758	(329,098)
Shared Services - General & Administrative	56,783	55,000	8,177	(1,783)	(48,606)	261,256	263,100	379,762	1,844	118,506	593,100	663,734	300,465	70,634	(292,635)
Utilities	35,092	45,000	32,617	9,908	(2,475)	217,961	239,900	193,276	21,939	(24,685)	509,900	543,917	419,493	34,017	(90,407)
Materials and Supplies	47,559	27,000	22,649	(20,559)	(24,910)	184,736	161,100	117,171	(23,636)	(67,564)	531,100	501,582	279,430	(29,518)	(251,670)
Miscellaneous Services	312,743	297,000	206,239	(15,743)	(106,503)	1,682,019	1,668,600	1,206,017	(13,419)	(476,002)	3,450,600	3,564,076	3,645,096	113,476	194,496
Treatment and Transportation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Depreciation and Amortization	217,141	217,000	220,000	(141)	2,859	1,302,846	1,302,400	1,320,000	(446)	17,154	2,604,400	2,605,699	2,948,963	1,299	344,563
Major Maintenance Expenses	483	-	(1,251)	(483)	(1,734)	3,118	2,300	3,739	(818)	621	2,300	3,400	-	1,100	(2,300)
Other Miscellaneous	2,321	6,000	-	3,679	(2,321)	6,107	12,000	-	5,894	(6,107)	48,000	74,864	-	26,864	(48,000)
Total Operating Expenses	1,040,691	994,118	799,742	(46,573)	(240,949)	5,205,525	5,175,468	4,167,625	(30,058)	(1,037,900)	10,722,245	11,246,874	10,247,194	524,630	(475,051)
Net Operating Profit	108,934	72,882	375,960	36,051	(267,027)	1,043,487	816,732	1,285,571	226,755	(242,084)	2,134,955	1,495,549	1,585,585	639,406	549,370
Non-Operating Income (Expense)															
Interest Income	4,159	5,000	4,897	(841)	(738)	24,516	30,200	47,848	(5,684)	(23,332)	60,200	94,327	74,821	(34,127)	(14,621)
Interest (Expense)	(131,303)	(115,000)	(101,003)	(16,303)	(30,300)	(701,156)	(640,600)	(625,899)	(60,556)	(75,256)	(1,345,600)	(1,406,328)	(1,442,776)	60,728	97,176
Other Miscellaneous	(1,856)	-	(945)	(1,856)	(911)	(5,861)	(7,100)	4,616	1,239	(10,476)	(7,100)	-	162,366	(7,100)	(169,466)
Net Non-Operating Income (Expense)	(129,000)	(110,000)	(97,052)	(19,000)	(31,949)	(682,500)	(617,500)	(573,435)	(65,000)	(109,064)	(1,292,500)	(1,312,001)	(1,205,589)	19,501	(86,911)
Net Income (Loss)	(20,067)	(37,118)	278,909	17,051	(298,975)	360,987	199,232	712,136	161,755	(351,148)	842,455	183,548	379,997	658,907	462,458
CASH FLOW STATEMENT															
Cash Flows From Operating Activities															
Operating Revenues	1,149,625	1,067,000	1,175,702	82,625	(26,078)	6,249,013	5,992,200	5,453,196	256,813	795,816	12,857,200	12,742,423	11,832,779	114,777	1,024,421
Operating Expenses (ex D&A)	(823,550)	(777,118)	(579,742)	(46,432)	(243,808)	(3,902,679)	(3,873,068)	(2,847,625)	(29,612)	(1,055,054)	(8,117,845)	(8,641,176)	(7,298,231)	523,331	(819,614)
Non-Cash Working Capital Changes	122,032	122,757	118,778	(725)	3,254	(633,648)	(640,185)	(572,377)	6,537	(61,271)	(19,444)	3,418	(10,602)	(22,863)	(8,842)
Net Cash Provided by (Used in) Operating Activities	448,106	412,639	714,739	35,467	(266,632)	1,712,686	1,478,948	2,033,194	233,738	(320,509)	4,719,911	4,104,666	4,523,946	615,245	195,965
Cash Flows From Financing Activities															
Capital Contributions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds New Borrowing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Payments	(3,506)	(80,888)	(851)	77,382	(2,655)	(699,709)	(777,383)	(719,024)	77,675	19,315	(1,406,328)	(1,406,328)	(1,756,050)	(0)	349,722
Principal Payments	(31,511)	(31,010)	(30,841)	(501)	(670)	(188,226)	(187,167)	(184,221)	(1,059)	(4,005)	(2,092,818)	(2,092,818)	(2,081,390)	(0)	(11,428)
Net Cash Provided by (Used in) Financing Activities	(35,017)	(111,898)	(31,692)	76,881	(3,325)	(887,935)	(964,550)	(903,245)	76,616	15,311	(3,499,146)	(3,499,146)	(3,837,440)	(0)	338,294
Cash Flows from Capital and Related Activities															
Non-Operating Income (Expenses)	(1,856)	-	(945)	(1,856)	(911)	(5,861)	(7,100)	4,616	1,239	(10,476)	(7,100)	-	162,366	(7,100)	(169,466)
Capital Expenditures, net	(270,082)	(273,869)	(536,457)	3,787	266,375	(1,188,289)	(1,191,469)	(1,884,484)	3,180	696,195	(4,151,600)	(4,190,000)	(5,043,931)	38,400	892,331
Net Cash Provided By (Used In) Capital and Related Activities	(271,937)	(273,869)	(537,402)	1,932	265,465	(1,194,149)	(1,198,569)	(1,879,869)	4,420	685,719	(4,158,700)	(4,190,000)	(4,881,565)	31,300	722,865
Cash Flows From Investing Activities															
Investments Converting To Cash	-	-	-	-	-	244,682	244,700	1,982,000	(18)	(1,737,318)	244,700	-	2,382,000	244,700	(2,137,300)
Purchased Investments	(245,000)	(245,000)	(245,000)	-	-	(245,000)	(245,000)	(1,977,682)	-	1,732,682	-	(1,977,682)	-	1,977,682	
Interest Income	4,159	5,000	4,897	(841)	(738)	24,516	30,200	47,848	(5,684)	(23,332)	60,200	94,327	74,821	(34,127)	(14,621)
Net Cash Provided By (Used In) Investing Activities	(240,841)	(240,000)	(240,104)	(841)	(738)	24,199	29,900	52,166	(5,701)	(27,967)	304,900	94,327	479,138	210,573	(174,238)
FUND NET CASH FLOWS	(99,690)	(213,128)	(94,459)	113,438	(5,231)	(345,200)	(654,272)	(697,754)	309,072	352,554	(2,633,036)	(3,490,153)	(3,715,921)	857,118	1,082,886
DEBT SERVICE RATIO															
Debt Service Ratio (Indenture Based)															
User Charges	1,008,577	927,000	850,552	81,577	158,025	5,806,837	5,634,100	5,039,983	172,737	766,854	11,776,100	11,799,441	10,866,675	(23,341)	909,425
Operating Expenses (Cash Based)	(823,550)	(777,118)	(579,742)	(46,432)	(243,808)	(3,902,679)	(3,873,068)	(2,847,625)	(29,612)	(1,055,054)	(8,117,845)	(8,641,176)	(7,298,231)	523,331	(819,614)
Interest Income	4,159	5,000	4,897	(841)	(738)	24,516	30,200	47,848	(5,684)	(23,332)	60,200	94,327	74,821	(34,127)	(14,621)
Annual Lease Payment (City)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-Operating Revenues (Expenses)	139,192	140,000	324,206	(808)	(185,013)	436,315	351,000	417,829	85,315	18,486	1,074,000	942,983	1,128,470	131,017	(54,470)
Cash Available For Debt Service	328,377	294,882	599,912	33,495	(271,534)	2,364,989	2,142,232	2,658,035	222,757	(293,046)	4,792,455	4,195,575	4,771,735	596,881	20,720
Interest Paid	117,194	117,194	146,338	0	(29,144)	703,164	703,164	878,025	0	(174,861)	1,406,328	1,406,328	1,756,050	0	(349,722)
Debt Retirement (Principal Payments)	174,402	174,402	173,449	0	952	1,046,409	1,046,409	1,040,695	0	5,714	2,092,818	2,092,818	2,081,390	0	11,428
Total Debt Service	291,596	291,596	319,787	0	(28,191)	1,749,573	1,749,573	1,918,720	0	(169,147)	3,499,146	3,499,146	3,837,440	0	(338,294)
Debt Service Ratio	1.13	1.01	1.88	0.11	(0.75)	1.35	1.22	1.39	0.13	(0.03)	1.37	1.20	1.24	0.17	0.13

LEHIGH COUNTY AUTHORITY
VARIANCE ANALYSIS - MONTH
For the Period Ended June 30, 2021

Suburban - Water				
STATEMENTS OF ACTIVITIES	Actual	Q2 FC	FC Var	Comments
Operating Revenues:				
User Charges	1,008,577	927,000	81,577	Higher commercial and industrial revenues
Connection & System Charges	136,908	138,000	(1,092)	
Other Miscellaneous Revenues	4,140	2,000	2,140	
Total Operating Revenues	1,149,625	1,067,000	82,625	Higher user charges
Operating Expenses:				
Personnel	368,570	347,118	(21,452)	
Shared Services - General & Administrative	56,783	55,000	(1,783)	
Utilities	35,092	45,000	9,908	
Materials and Supplies	47,559	27,000	(20,559)	
Miscellaneous Services	312,743	297,000	(15,743)	
Treatment and Transportation	-	-	-	
Depreciation and Amortization	217,141	217,000	(141)	
Major Maintenance Expenses	483	-	(483)	
Other Miscellaneous	2,321	6,000	3,679	
Total Operating Expenses	1,040,691	994,118	(46,573)	Higher personnel costs, higher materials/supplies, and higher miscellaneous services
Net Operating Profit	108,934	72,882	36,051	Higher operating revenues partially offset by higher operating expenses
Non-Operating Income (Expense)				
Interest Income	4,159	5,000	(841)	
Interest (Expense)	(131,303)	(115,000)	(16,303)	
Other Miscellaneous	(1,856)	-	(1,856)	
Net Non-Operating Income (Expense)	(129,000)	(110,000)	(19,000)	Higher interest expense
Net Income (Loss)	(20,067)	(37,118)	17,051	Higher net operating profit partially offset by higher non-operating expenses
CASH FLOW STATEMENT				
Cash Flows From Operating Activities				
Operating Revenues	1,149,625	1,067,000	82,625	
Operating Expenses (ex D&A)	(823,550)	(777,118)	(46,432)	
Non-Cash Working Capital Changes	122,032	122,757	(725)	
Net Cash Provided by (Used in) Operating Activities	448,106	412,639	35,467	Higher operating revenues partially offset by higher operating expenses along with slightly unfavorable working capital movements
Cash Flows From Financing Activities				
Capital Contributions	-	-	-	
Proceeds New Borrowing	-	-	-	
Interest Payments	(3,506)	(80,888)	77,382	
Principal Payments	(31,511)	(31,010)	(501)	
Net Cash Provided by (Used in) Financing Activities	(35,017)	(111,898)	76,881	Favorable timing effect on interest payments
Cash Flows from Capital and Related Activities				
Non-Operating Income (Expenses)	(1,856)	-	(1,856)	
Capital Expenditures, net	(270,082)	(273,869)	3,787	
Net Cash Provided By (Used In) Capital and Related Activities	(271,937)	(273,869)	1,932	Lower capex
Cash Flows From Investing Activities				
Investments Converting To Cash	-	-	-	
Purchased Investments	(245,000)	(245,000)	-	
Interest Income	4,159	5,000	(841)	
Net Cash Provided By (Used In) Investing Activities	(240,841)	(240,000)	(841)	
FUND NET CASH FLOWS	(99,690)	(213,128)	113,438	Higher cash from operations, lower interest payments and lower capex

LEHIGH COUNTY AUTHORITY
FINANCIAL STATEMENTS - SUBURBAN WASTEWATER
For the Period Ended June 30, 2021

STATEMENTS OF ACTIVITIES	Suburban - Wastewater														
	Month					Year To Date					Full Year				
	Actual	Q2 FC	Prior Yr	FC Var	PY Var	Actual	Q2 FC	Prior Yr	FC Var	PY Var	Q2 FC	Budget	Prior Yr	Bud Var	PY Var
Operating Revenues:															
User Charges	1,724,296	1,532,000	1,314,162	192,296	410,134	9,416,283	9,427,900	7,730,867	(11,617)	1,685,416	19,082,900	19,166,369	16,174,427	(83,469)	2,908,473
Connection & System Charges	39,787	98,000	48,240	(58,213)	(8,453)	441,527	530,300	2,862,626	(88,773)	(2,421,100)	1,030,300	865,588	3,584,347	164,712	(2,554,047)
Other Miscellaneous Revenues	15	-	75	15	(60)	1,820	1,700	180	120	1,640	1,700	628	6,194	1,072	(4,494)
Total Operating Revenues	1,764,098	1,630,000	1,362,476	134,098	401,621	9,859,630	9,959,900	10,593,673	(100,270)	(734,043)	20,114,900	20,032,585	19,764,968	82,315	349,932
Operating Expenses:															
Personnel	134,614	139,000	129,690	4,386	(4,924)	620,121	752,700	421,791	132,579	(198,330)	1,651,700	1,760,954	1,330,827	109,254	(320,873)
Shared Services - General & Administrative	10,129	13,000	9,892	2,871	(237)	104,656	95,700	202,683	(8,956)	98,027	173,700	155,415	77,142	(18,285)	(96,558)
Utilities	21,264	37,000	24,389	15,736	3,125	142,515	173,900	138,634	31,385	(3,881)	395,900	449,484	296,419	53,584	(99,481)
Materials and Supplies	8,196	42,000	13,923	33,804	5,726	70,436	134,500	68,999	64,064	(1,437)	386,500	500,563	232,039	114,063	(154,461)
Miscellaneous Services	536,030	529,000	493,350	(7,030)	(42,680)	2,993,201	3,025,800	2,703,412	32,599	(289,789)	6,199,800	6,358,021	6,257,849	158,221	58,049
Treatment and Transportation	230,000	241,000	240,000	11,000	10,000	1,719,218	1,502,000	1,441,617	(217,218)	(277,600)	3,761,000	3,977,539	2,906,958	216,539	(854,042)
Depreciation and Amortization	384,727	379,000	383,460	(5,727)	(1,267)	2,308,362	2,296,800	2,300,760	(11,562)	(7,602)	4,635,800	4,616,783	5,937,183	(19,017)	1,301,383
Major Maintenance Expenses	2,972	3,000	(8,153)	28	(11,125)	62,113	133,900	26,168	71,787	(35,944)	869,900	1,000,000	-	130,100	(869,900)
Other Miscellaneous	-	4,000	-	4,000	-	-	8,000	-	8,000	-	32,000	46,422	-	14,422	(32,000)
Total Operating Expenses	1,327,933	1,387,000	1,286,551	59,067	(41,382)	8,020,621	8,123,300	7,304,066	102,679	(716,556)	18,106,300	18,865,181	17,038,417	758,881	(1,067,883)
Net Operating Profit	436,165	243,000	75,925	193,165	360,239	1,839,009	1,836,600	3,289,608	2,409	(1,450,599)	2,008,600	1,167,404	2,726,551	841,196	(717,951)
Non-Operating Income (Expense)															
Interest Income	7,450	6,400	15,410	1,050	(7,960)	48,293	46,500	112,025	1,793	(63,732)	84,900	190,471	185,457	(105,571)	(100,557)
Interest (Expense)	(15,541)	(15,700)	(16,608)	159	1,068	(93,650)	(93,600)	(101,459)	(50)	7,809	(187,800)	(181,995)	(199,707)	(5,805)	11,907
Other Miscellaneous	(6,981)	(2,600)	(10,469)	(4,381)	3,487	(30,408)	(26,500)	48,834	(3,908)	(79,241)	(42,100)	-	(26,609)	(42,100)	(15,491)
Net Non-Operating Income (Expense)	(15,072)	(11,900)	(11,667)	(3,172)	(3,405)	(75,765)	(73,600)	59,399	(2,165)	(135,164)	(145,000)	8,475	(40,859)	(153,475)	(104,141)
Net Income (Loss)	421,092	231,100	64,258	189,992	356,834	1,763,244	1,763,000	3,349,007	244	(1,585,763)	1,863,600	1,175,879	2,685,692	687,721	(822,092)
CASH FLOW STATEMENT															
Cash Flows From Operating Activities															
Operating Revenues	1,764,098	1,630,000	1,362,476	134,098	401,621	9,859,630	9,959,900	10,593,673	(100,270)	(734,043)	20,114,900	20,032,585	19,764,968	82,315	349,932
Operating Expenses (ex D&A)	(943,206)	(1,008,000)	(903,091)	64,794	(40,115)	(5,712,259)	(5,826,500)	(5,003,306)	114,241	(708,954)	(13,470,500)	(14,248,398)	(11,101,234)	777,898	(2,369,266)
Non-Cash Working Capital Changes	(34,258)	(58,800)	(377,998)	24,542	343,739	(1,570,903)	(1,596,208)	(1,425,624)	25,305	(145,279)	1,069,456	(0)	(839,283)	1,069,456	1,908,740
Net Cash Provided by (Used in) Operating Activities	786,633	563,200	81,388	223,433	705,246	2,576,467	2,537,192	4,164,744	39,276	(1,588,276)	7,713,856	5,784,186	7,824,450	1,929,670	(110,594)
Cash Flows From Financing Activities															
Capital Contributions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds New Borrowing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Payments	(12,699)	(12,900)	(13,737)	201	1,038	(85,023)	(85,200)	(84,002)	177	(1,022)	(181,995)	(181,995)	(164,692)	-	(17,304)
Principal Payments	(45,693)	(45,600)	(44,770)	(93)	(923)	(273,257)	(273,200)	(271,575)	(57)	(1,682)	(549,034)	(549,034)	(542,065)	-	(6,969)
Net Cash Provided by (Used in) Financing Activities	(58,392)	(58,500)	(58,507)	108	115	(358,280)	(358,400)	(355,576)	120	(2,704)	(731,029)	(731,029)	(706,757)	-	(24,272)
Cash Flows from Capital and Related Activities															
Non-Operating Income (Expenses)	(6,981)	(2,600)	(10,469)	(4,381)	3,487	(30,408)	(26,500)	48,834	(3,908)	(79,241)	(42,100)	-	(26,609)	(42,100)	(15,491)
Capital Expenditures, net	-	0	(740,804)	(0)	740,804	(1,516,167)	(1,516,100)	(3,463,354)	(67)	1,947,187	(3,448,557)	(2,921,800)	(8,381,452)	(526,757)	4,932,895
Net Cash Provided By (Used In) Capital and Related Activities	(6,981)	(2,600)	(751,273)	(4,381)	744,291	(1,546,574)	(1,542,600)	(3,414,520)	(3,974)	1,867,946	(3,490,657)	(2,921,800)	(8,408,061)	(568,857)	4,917,404
Cash Flows From Investing Activities															
Investments Converting To Cash	-	-	938,000	-	(938,000)	1,484,000	1,484,000	2,669,000	-	(1,185,000)	1,484,000	-	5,156,000	1,484,000	(3,672,000)
Purchased Investments	(493,000)	(493,000)	-	-	(493,000)	(2,472,000)	(2,472,000)	(1,972,000)	-	(500,000)	(1,979,000)	-	(3,653,000)	(1,979,000)	1,674,000
Interest Income	7,450	6,400	15,410	1,050	(7,960)	48,293	46,500	112,025	1,793	(63,732)	84,900	190,471	185,457	(105,571)	(100,557)
Net Cash Provided By (Used In) Investing Activities	(485,550)	(486,600)	953,410	1,050	(1,438,960)	(939,707)	(941,500)	809,025	1,793	(1,748,732)	(410,100)	190,471	1,688,457	(600,571)	(2,098,557)
FUND NET CASH FLOWS	235,710	15,500	225,018	220,210	10,692	(268,094)	(305,308)	1,203,672	37,214	(1,471,766)	3,082,070	2,321,828	398,089	760,243	2,683,981
DEBT SERVICE RATIO															
Debt Service Ratio (Indenture Based)															
User Charges	1,724,296	1,532,000	1,314,162	192,296	410,134	9,416,283	9,427,900	7,730,867	(11,617)	1,685,416	19,082,900	19,166,369	16,174,427	(83,469)	2,908,473
Operating Expenses (Cash Based)	(943,206)	(1,008,000)	(903,091)	64,794	(40,115)	(5,712,259)	(5,826,500)	(5,003,306)	114,241	(708,954)	(13,470,500)	(14,248,398)	(11,101,234)	777,898	(2,369,266)
Interest Income	7,450	6,400	15,410	1,050	(7,960)	48,293	46,500	112,025	1,793	(63,732)	84,900	190,471	185,457	(105,571)	(100,557)
Annual Lease Payment (City)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-Operating Revenues (Expenses)	32,821	95,400	37,846	(62,579)	(5,026)	412,939	505,500	2,911,640	(92,561)	(2,498,701)	989,900	866,216	3,563,932	123,684	(2,574,032)
Cash Available For Debt Service	821,360	625,800	464,327	195,560	357,033	4,165,256	4,153,400	5,751,226	11,856	(1,585,970)	6,687,200	5,974,657	8,822,582	712,543	(2,135,382)
Interest Paid	15,166	15,166	13,724	-	1,442	90,998	90,998	82,346	-	8,652	181,995	181,995	164,692	-	17,304
Debt Retirement (Principal Payments)	45,753	45,753	45,172	-	581	274,517	274,517	271,033	-	3,484	549,034	549,034	542,065	-	6,969
Total Debt Service	60,919	60,919	58,896	-	2,023	365,515	365,515	353,379	-	12,136	731,029	731,029	706,757	-	24,272
Debt Service Ratio	13.48	10.27	7.88	3.21	5.60	11.40	11.36	16.27	0.03	(4.88)	9.15	8.17	12.48	0.97	(3.34)

**LEHIGH COUNTY AUTHORITY
VARIANCE ANALYSIS - MONTH
For the Period Ended June 30, 2021**

Suburban - Wastewater				
STATEMENTS OF ACTIVITIES	Actual	Q2 FC	FC Var	Comments
Operating Revenues:				
User Charges	1,724,296	1,532,000	192,296	Higher penalties
Connection & System Charges	39,787	98,000	(58,213)	Lower tapping fees
Other Miscellaneous Revenues	15	-	15	
Total Operating Revenues	1,764,098	1,630,000	134,098	Higher user charges partially offset by lower system and connection revenues
Operating Expenses:				
Personnel	134,614	139,000	4,386	
Shared Services - General & Administrative	10,129	13,000	2,871	
Utilities	21,264	37,000	15,736	
Materials and Supplies	8,196	42,000	33,804	
Miscellaneous Services	536,030	529,000	(7,030)	
Treatment and Transportation	230,000	241,000	11,000	
Depreciation and Amortization	384,727	379,000	(5,727)	
Major Maintenance Expenses	2,972	3,000	28	
Other Miscellaneous	-	4,000	4,000	
Total Operating Expenses	1,327,933	1,387,000	59,067	Lower utilities, lower treatment & transportation, and lower materials/supplies partially eroded by higher services and higher D&A
Net Operating Profit	436,165	243,000	193,165	Higher operating revenues along with lower operating expenses
Non-Operating Income (Expense)				
Interest Income	7,450	6,400	1,050	
Interest (Expense)	(15,541)	(15,700)	159	
Other Miscellaneous	(6,981)	(2,600)	(4,381)	
Net Non-Operating Income (Expense)	(15,072)	(11,900)	(3,172)	
Net Income (Loss)	421,092	231,100	189,992	Higher net operating income with a small offset from unfavorable non-operating items
CASH FLOW STATEMENT				
Cash Flows From Operating Activities				
Operating Revenues	1,764,098	1,630,000	134,098	
Operating Expenses (ex D&A)	(943,206)	(1,008,000)	64,794	
Non-Cash Working Capital Changes	(34,258)	(58,800)	24,542	
Net Cash Provided by (Used in) Operating Activities	786,633	563,200	223,433	Higher operating revenues, lower operating expenses, and favorable working capital movements
Cash Flows From Financing Activities				
Capital Contributions	-	-	-	
Proceeds New Borrowing	-	-	-	
Interest Payments	(12,699)	(12,900)	201	
Principal Payments	(45,693)	(45,600)	(93)	
Net Cash Provided by (Used in) Financing Activities	(58,392)	(58,500)	108	
Cash Flows from Capital and Related Activities				
Non-Operating Income (Expenses)	(6,981)	(2,600)	(4,381)	
Capital Expenditures, net	-	0	(0)	
Net Cash Provided By (Used In) Capital and Related Activities	(6,981)	(2,600)	(4,381)	
Cash Flows From Investing Activities				
Investments Converting To Cash	-	-	-	
Purchased Investments	(493,000)	(493,000)	-	
Interest Income	7,450	6,400	1,050	
Net Cash Provided By (Used In) Investing Activities	(485,550)	(486,600)	1,050	
FUND NET CASH FLOWS	235,710	15,500	220,210	Higher cash from operations

LEHIGH COUNTY AUTHORITY
FINANCIAL STATEMENTS - CITY DIVISION
For the Period Ended June 30, 2021

STATEMENTS OF ACTIVITIES	City Division														
	Month					Year To Date					Full Year				
	Actual	Q2 FC	Prior Yr	FC Var	PY Var	Actual	Q2 FC	Prior Yr	FC Var	PY Var	Q2 FC	Budget	Prior Yr	Bud Var	PY Var
Operating Revenues:															
User Charges	3,417,492	3,289,000	2,737,461	128,492	680,030	20,290,166	19,821,300	17,665,577	468,866	2,624,589	41,206,300	41,996,514	37,983,732	(790,214)	3,222,568
Connection & System Charges	148,313	112,000	127,076	36,313	21,237	1,360,623	1,062,900	748,305	297,723	612,318	4,135,900	3,947,981	2,767,986	187,919	1,367,914
Other Miscellaneous Revenues	14,597	1,000	1,260	13,597	13,337	43,335	24,000	21,599	19,335	21,736	61,000	59,249	51,620	1,751	9,380
Total Operating Revenues	3,580,402	3,402,000	2,865,798	178,402	714,604	21,694,125	20,908,200	18,435,482	785,925	3,258,643	45,403,200	46,003,744	40,803,339	(600,544)	4,599,861
Operating Expenses:															
Personnel	1,150,010	1,153,862	1,242,797	3,851	92,787	5,195,909	5,199,248	4,942,488	3,339	(253,421)	12,117,475	11,561,494	11,298,193	(555,981)	(819,282)
Shared Services - General & Administrative	123,181	125,000	38,973	1,819	(84,208)	759,643	752,900	1,110,291	(6,743)	350,648	1,642,900	1,739,417	1,390,681	96,517	(252,219)
Utilities	113,746	120,000	141,989	6,254	28,243	927,546	972,800	930,302	45,254	2,757	2,112,800	2,156,620	1,815,047	43,820	(297,753)
Materials and Supplies	172,807	156,500	64,242	(16,307)	(108,565)	689,022	697,500	594,650	8,478	(94,372)	1,672,500	1,765,642	1,378,969	93,142	(293,531)
Miscellaneous Services	152,546	174,500	61,923	21,954	(90,623)	562,341	704,200	590,933	141,859	28,592	1,791,200	1,979,996	2,064,942	188,796	273,742
Treatment and Transportation	-	1,000	4,959	1,000	4,959	5,813	2,000	4,959	(3,813)	(854)	8,000	12,000	11,926	4,000	3,926
Depreciation and Amortization	491,154	491,000	490,000	(154)	(1,154)	2,946,924	2,946,800	2,940,000	(124)	(6,924)	5,892,800	5,893,862	6,117,396	1,062	224,596
Major Maintenance Expenses	192,171	200,000	18,691	7,829	(173,480)	239,109	286,500	290,660	47,391	51,551	2,546,500	2,652,924	-	106,424	(2,546,500)
Other Miscellaneous	-	1,000	-	1,000	-	-	2,000	-	2,000	-	8,000	13,972	-	5,972	(8,000)
Total Operating Expenses	2,395,615	2,422,862	2,063,573	27,247	(332,042)	11,326,307	11,563,948	11,404,284	237,641	77,977	27,792,175	27,775,927	24,077,155	(16,249)	(3,715,020)
Net Operating Profit	1,184,787	979,138	802,225	205,649	382,562	10,367,818	9,344,252	7,031,198	1,023,566	3,336,620	17,611,025	18,227,817	16,726,184	(616,792)	884,841
Non-Operating Income (Expense)															
Interest Income	316	2,000	1,503	(1,684)	(1,187)	3,124	6,500	157,128	(3,376)	(154,004)	110,500	172,960	162,074	(62,460)	(51,574)
Interest (Expense)	(1,382,735)	(1,383,000)	(1,453,284)	265	70,549	(8,296,410)	(8,296,800)	(8,719,699)	390	423,290	(17,533,886)	(17,535,086)	(17,257,071)	1,200	(276,815)
Other Miscellaneous	-	-	-	-	-	-	-	(7,315)	-	7,315	-	-	(4,206,200)	-	4,206,200
Net Non-Operating Income (Expense)	(1,382,419)	(1,381,000)	(1,451,781)	(1,419)	69,362	(8,293,286)	(8,290,300)	(8,569,886)	(2,986)	276,600	(17,423,386)	(17,362,125)	(21,301,196)	(61,260)	3,877,811
Net Income (Loss)	(197,632)	(401,862)	(649,556)	204,230	451,924	2,074,532	1,053,952	(1,538,688)	1,020,580	3,613,220	187,639	865,692	(4,575,013)	(678,053)	4,762,652
CASH FLOW STATEMENT															
Cash Flows From Operating Activities															
Operating Revenues	3,580,402	3,402,000	2,865,798	178,402	714,604	21,694,125	20,908,200	18,435,482	785,925	3,258,643	45,403,200	46,003,744	40,803,339	(600,544)	4,599,861
Operating Expenses (ex D&A)	(1,904,461)	(1,931,862)	(1,573,573)	27,401	(330,888)	(8,379,383)	(8,617,148)	(8,464,284)	237,765	84,901	(21,899,375)	(21,882,064)	(17,959,759)	(17,311)	(3,939,616)
Non-Cash Working Capital Changes	2,681,429	2,677,743	392,107	3,686	2,289,321	1,581,320	1,577,715	(2,199,944)	3,605	3,781,264	(1,380,681)	50,001	(1,934,019)	(1,430,681)	553,338
Net Cash Provided by (Used in) Operating Activities	4,357,370	4,147,881	1,684,332	209,488	2,673,037	14,896,061	13,868,766	7,771,254	1,027,295	7,124,808	22,123,144	24,171,680	20,909,561	(2,048,536)	1,213,583
Cash Flows From Financing Activities															
Capital Contributions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds New Borrowing	-	-	-	-	-	-	-	-	-	-	2,000,000	-	(2,000,000)	-	
Interest Payments	(5,772,543)	(5,772,543)	(6,627,694)	(0)	855,151	(5,772,543)	(5,772,543)	(6,627,694)	(0)	855,151	(11,565,086)	(11,565,086)	(10,651,666)	-	(913,420)
Principal Payments	-	-	-	-	-	-	-	-	-	-	(2,660,831)	(2,660,831)	(1,149,035)	-	(1,511,796)
Net Cash Provided by (Used in) Financing Activities	(5,772,543)	(5,772,543)	(6,627,694)	(0)	855,151	(5,772,543)	(5,772,543)	(6,627,694)	(0)	855,151	(14,225,917)	(12,225,917)	(11,800,701)	(2,000,000)	(2,425,216)
Cash Flows from Capital and Related Activities															
Non-Operating Income (Expenses)	-	-	-	-	-	(615,300)	(615,300)	(7,315)	-	(607,985)	(1,230,600)	(1,230,600)	(4,206,200)	-	2,975,600
Capital Expenditures, net	(763,167)	(764,200)	(178,617)	1,033	(584,550)	(2,532,099)	(2,545,518)	(836,641)	13,419	(1,695,458)	(5,631,046)	(6,224,576)	(3,028,551)	593,530	(2,602,496)
Net Cash Provided By (Used In) Capital and Related Activities	(763,167)	(764,200)	(178,617)	1,033	(584,550)	(3,147,399)	(3,160,818)	(843,956)	13,419	(2,303,443)	(6,861,646)	(7,455,176)	(7,234,751)	593,530	373,104
Cash Flows From Investing Activities															
Investments Converting To Cash	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Purchased Investments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Income	316	2,000	1,503	(1,684)	(1,187)	3,124	6,500	157,128	(3,376)	(154,004)	110,500	172,960	162,074	(62,460)	(51,574)
Net Cash Provided By (Used In) Investing Activities	316	2,000	1,503	(1,684)	(1,187)	3,124	6,500	157,128	(3,376)	(154,004)	110,500	172,960	162,074	(62,460)	(51,574)
FUND NET CASH FLOWS	(2,178,024)	(2,386,862)	(5,120,475)	208,837	2,942,451	5,979,243	4,941,905	456,732	1,037,337	5,522,511	1,146,081	4,663,547	2,036,183	(3,517,466)	(890,102)
DEBT SERVICE RATIO															
Debt Service Ratio (Indenture Based)															
User Charges	3,417,492	3,289,000	2,737,461	128,492	680,030	20,290,166	19,821,300	17,665,577	468,866	2,624,589	41,206,300	41,996,514	37,983,732	(790,214)	3,222,568
Operating Expenses (Cash Based)	(1,904,461)	(1,931,862)	(1,573,573)	27,401	(330,888)	(8,379,383)	(8,617,148)	(8,464,284)	237,765	84,901	(21,899,375)	(21,882,064)	(17,959,759)	(17,311)	(3,939,616)
Interest Income	316	2,000	1,503	(1,684)	(1,187)	3,124	6,500	157,128	(3,376)	(154,004)	110,500	172,960	162,074	(62,460)	(51,574)
Annual Lease Payment (City)	(102,550)	(102,550)	(44,438)	-	(58,112)	(615,300)	(615,300)	(266,629)	-	(348,671)	(1,230,600)	(1,230,600)	(533,258)	-	(697,342)
Non-Operating Revenues (Expenses)	162,910	113,000	128,336	49,910	34,574	1,403,958	1,086,900	762,589	317,058	641,369	4,196,900	4,007,230	(1,386,593)	189,670	5,583,493
Cash Available For Debt Service	1,573,707	1,369,588	1,249,290	204,119	324,417	12,702,566	11,682,252	9,854,382	1,020,314	2,848,184	22,383,725	23,064,040	18,266,196	(680,315)	4,117,529
Interest Paid	963,757	963,757	887,639	-	76,118	5,782,543	5,782,543	5,325,833	-	456,710	11,565,086	11,565,086	10,651,666	-	913,420
Debt Retirement (Principal Payments)	221,736	221,736	95,739	-	125,983	1,330,416	1,330,416	574,518	-	755,898	2,660,831	2,660,831	1,149,035	-	1,511,796
Total Debt Service	1,185,493	1,185,493	983,392	-	202,101	7,112,959	7,112,959	5,900,351	-	1,212,608	14,225,917	14,225,917	11,800,701	-	2,425,216
Debt Service Ratio	1.33	1.16	1.27	0.17	0.06	1.79	1.64	1.67	0.14	0.12	1.57	1.62	1.55	(0.05)	0.03

**LEHIGH COUNTY AUTHORITY
VARIANCE ANALYSIS - MONTH
For the Period Ended June 30, 2021**

City Division				
STATEMENTS OF ACTIVITIES	Actual	Q2 FC	FC Var	Comments
Operating Revenues:				
User Charges	3,417,492	3,289,000	128,492	Higher industrial residential. Commercial, and industrial revenues along with higher penalties Higher CCRC and higher meter sales revenues
Connection & System Charges	148,313	112,000	36,313	
Other Miscellaneous Revenues	14,597	1,000	13,597	
Total Operating Revenues	3,580,402	3,402,000	178,402	Higher user charges and higher capital recovery
Operating Expenses:				
Personnel	1,150,010	1,153,862	3,851	Lower services offset partly by higher materials/supplies
Shared Services - General & Administrative	123,181	125,000	1,819	
Utilities	113,746	120,000	6,254	
Materials and Supplies	172,807	156,500	(16,307)	
Miscellaneous Services	152,546	174,500	21,954	
Treatment and Transportation	-	1,000	1,000	
Depreciation and Amortization	491,154	491,000	(154)	
Major Maintenance Expenses	192,171	200,000	7,829	
Other Miscellaneous	-	1,000	1,000	
Total Operating Expenses	2,395,615	2,422,862	27,247	
Net Operating Profit	1,184,787	979,138	205,649	
Non-Operating Income (Expense)				
Interest Income	316	2,000	(1,684)	
Interest (Expense)	(1,382,735)	(1,383,000)	265	
Other Miscellaneous	-	-	-	
Net Non-Operating Income (Expense)	(1,382,419)	(1,381,000)	(1,419)	
Net Income (Loss)	(197,632)	(401,862)	204,230	Higher net operating profit
CASH FLOW STATEMENT				
Cash Flows From Operating Activities				
Operating Revenues	3,580,402	3,402,000	178,402	
Operating Expenses (ex D&A)	(1,904,461)	(1,931,862)	27,401	
Non-Cash Working Capital Changes	2,681,429	2,677,743	3,686	
Net Cash Provided by (Used in) Operating Activities	4,357,370	4,147,881	209,488	Higher cash from operations
Cash Flows From Financing Activities				
Capital Contributions	-	-	-	
Proceeds New Borrowing	-	-	-	
Interest Payments	(5,772,543)	(5,772,543)	(0)	
Principal Payments	-	-	-	
Net Cash Provided by (Used in) Financing Activities	(5,772,543)	(5,772,543)	(0)	
Cash Flows from Capital and Related Activities				
Non-Operating Income (Expenses)	-	-	-	Slightly lower capex
Capital Expenditures, net	(763,167)	(764,200)	1,033	
Net Cash Provided By (Used In) Capital and Related Activities	(763,167)	(764,200)	1,033	Lower capex
Cash Flows From Investing Activities				
Investments Converting To Cash	-	-	-	
Purchased Investments	-	-	-	
Interest Income	316	2,000	(1,684)	
Net Cash Provided By (Used In) Investing Activities	316	2,000	(1,684)	
FUND NET CASH FLOWS	(2,178,024)	(2,386,862)	208,837	Higher cash from operations

**LEHIGH COUNTY AUTHORITY
CASH & INVESTMENT SUMMARY
For the Period Ended June 30, 2021**

	Suburban Water				Suburban Wastewater				City Division				Total			
	6/30/2021 Actual	2021 Forecast	2021 Budget	2020 Actual	6/30/2021 Actual	2021 Forecast	2021 Budget	2020 Actual	6/30/2021 Actual	2021 Forecast	2021 Budget	2020 Actual	6/30/2021 Actual	2021 Forecast	2021 Budget	2020 Actual
Cash																
Operating																
Unrestricted	6,889,489	4,290,776	1,173,430	5,206,224	(3,025,191)	325,058	4,315,728	(217,015)	7,759,478	2,926,316	19,638,366	1,378,271	11,623,777	7,542,150	25,127,525	6,367,480
Restricted	-	-	2,532,181	-	-	272	0	272	18,916,139	18,916,139	1,614,754	23,992,617	18,916,139	18,916,411	4,146,935	23,992,889
Total Operating	6,889,489	4,290,776	3,705,611	5,206,224	(3,025,191)	325,330	4,315,728	(216,743)	26,675,617	21,842,455	21,253,120	25,370,888	30,539,916	26,458,561	29,274,460	30,360,369
Capital																
Unrestricted	319,660	319,660	2,037,248	2,037,248	10,212,017	10,212,017	7,672,019	7,672,019	4,322,434	4,322,434	169,980	169,980	14,854,110	14,854,110	9,879,247	9,879,247
Restricted	95,418	-	-	-	338,288	337,932	337,932	337,932	7,500,052	7,500,052	7,500,000	7,500,000	7,933,758	7,837,984	7,837,932	7,837,932
Total Capital	415,078	319,660	2,037,248	2,037,248	10,550,304	10,549,949	8,009,951	8,009,951	11,822,486	11,822,486	7,669,980	7,669,980	22,787,868	22,692,094	17,717,179	17,717,179
Other Restricted																
Debt Reserves	1,452,198	1,858,493	1,043,094	1,858,493	-	-	-	-	28,976,677	28,976,677	37,684,197	28,454,669	30,428,875	30,835,170	38,727,291	30,313,162
Escrow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Other Restricted	1,452,198	1,858,493	1,043,094	1,858,493	-	-	-	-	28,976,677	28,976,677	37,684,197	28,454,669	30,428,875	30,835,170	38,727,291	30,313,162
Total Cash	8,756,765	6,468,929	6,785,954	9,101,965	7,525,114	10,875,278	12,325,679	7,793,208	67,474,780	62,641,618	66,607,297	61,495,537	83,756,659	79,985,826	85,718,930	78,390,710
Investments																
Operating																
Unrestricted	1,982,206	1,497,825	2,136,930	1,497,825	-	5,387,746	6,757,276	5,387,746	-	-	-	-	1,982,206	6,885,571	8,894,206	6,885,571
Restricted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Operating	1,982,206	1,497,825	2,136,930	1,497,825	-	5,387,746	6,757,276	5,387,746	-	-	-	-	1,982,206	6,885,571	8,894,206	6,885,571
Capital																
Unrestricted	1,000,083	1,000,000	1,000,000	1,000,000	7,127,338	1,000,000	1,000,000	1,000,000	-	-	-	-	8,127,420	2,000,000	2,000,000	2,000,000
Restricted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Capital	1,000,083	1,000,000	1,000,000	1,000,000	7,127,338	1,000,000	1,000,000	1,000,000	-	-	-	-	8,127,420	2,000,000	2,000,000	2,000,000
Other Restricted																
Debt Reserves	-	244,924	-	244,924	-	-	-	-	-	-	-	-	-	244,924	-	244,924
Escrow	5,656,546	4,210,752	4,236,279	4,210,752	-	-	-	-	-	-	-	-	5,656,546	4,210,752	4,236,279	4,210,752
Total Other Restricted	5,656,546	4,455,676	4,236,279	4,455,676	-	-	-	-	-	-	-	-	5,656,546	4,455,676	4,236,279	4,455,676
Total Investments	8,638,835	6,953,501	7,373,209	6,953,501	7,127,338	6,387,746	7,757,276	6,387,746	-	-	-	-	15,766,173	13,341,247	15,130,485	13,341,247
Total Cash and Investments	17,395,600	13,422,430	14,159,163	16,055,466	14,652,451	17,263,024	20,082,955	14,180,954	67,474,780	62,641,618	66,607,297	61,495,537	99,522,831	93,327,073	100,849,415	91,731,957
Summary																
Cash																
Unrestricted	7,209,149	4,610,436	3,210,679	7,243,472	7,186,826	10,537,074	11,987,747	7,455,004	12,081,912	7,248,750	19,808,346	1,548,251	26,477,887	22,396,261	35,006,772	16,246,727
Restricted	1,547,616	1,858,493	3,575,275	1,858,493	338,288	338,204	337,932	338,204	55,392,868	55,392,868	46,798,951	59,947,286	57,278,772	57,589,565	50,712,158	62,143,983
Total Cash	8,756,765	6,468,929	6,785,954	9,101,965	7,525,114	10,875,278	12,325,679	7,793,208	67,474,780	62,641,618	66,607,297	61,495,537	83,756,659	79,985,826	85,718,930	78,390,710
Investments																
Unrestricted	2,982,289	2,497,825	3,136,930	2,497,825	7,127,338	6,387,746	7,757,276	6,387,746	-	-	-	-	10,109,626	8,885,571	10,894,206	8,885,571
Restricted	5,656,546	4,455,676	4,236,279	4,455,676	-	-	-	-	-	-	-	-	5,656,546	4,455,676	4,236,279	4,455,676
Total Investments	8,638,835	6,953,501	7,373,209	6,953,501	7,127,338	6,387,746	7,757,276	6,387,746	-	-	-	-	15,766,173	13,341,247	15,130,485	13,341,247
Total Cash and Investments	17,395,600	13,422,430	14,159,163	16,055,466	14,652,451	17,263,024	20,082,955	14,180,954	67,474,780	62,641,618	66,607,297	61,495,537	99,522,831	93,327,073	100,849,415	91,731,957

Lehigh County Authority

System Operations Review - June 2021

Presented: July 26, 2021

<u>Critical Activities</u>	<u>System</u>	<u>Description</u>	<u>Jun-21</u>	<u>2021 Totals</u>	<u>2020 Totals</u>	<u>Permit</u>
			<u>Daily Avg (MGD)</u>	<u>Daily Avg (MGD)</u>	<u>Daily Avg (MGD)</u>	<u>Daily Max (MGD)</u>
Water Production	Allentown	Total	22.84	21.83	21.37	39.0
		Schantz Spring	7.38	7.56	7.31	9.0
		Crystal Spring	3.77	3.73	3.80	4.0
		Little Lehigh Creek	11.69	10.49	10.17	30.0
		Lehigh River	0.00	0.05	0.09	28.0
	Central Lehigh	Total	12.38	10.90	10.24	19.04 MGD Avg
		Feed from Allentown	8.09	7.33	6.71	7.0 MGD Avg 10.5 MGD Max
		Well Production (CLD)	4.29	3.57	3.53	8.54 MGD Avg
		Sum of all (12) other Suburban Water Systems	0.13	0.13	0.15	1.71 Sum of all wells
Wastewater Treatment	Kline's Island	33.00	33.09	32.27	40.0	
	Pretreatment Plant	5.84	5.34	4.94	5.75 (design capacity)	
	Sum of all (5) other Suburban WW Systems	0.20	0.21	0.21	0.36	
			<u>Jun-21</u>	<u>2021 Totals</u>	<u>2020 Totals</u>	<u>2019 Totals</u>
Precipitation Totals (inches)			2.81	17.72	49.57	60.66
Compliance Reports Submitted to Allentown			17	154	275	278
Notices of Violation (NOVs)	(Allentown + Suburban)		0	0	2	1
Sanitary Sewer Overflows (SSOs)/Bypasses	(Allentown + Suburban)		1	6	44	37
Main Breaks Repaired	Allentown		0	15	19	20
	Suburban		1	9	17	12
Customer Service Phone Inquiries	(Allentown + Suburban)		1,292	9,455	16,772	22,992
Water Shutoffs for Non-Payment	(Allentown + Suburban)		283	724	280	1,956
Injury Accidents	(Allentown + Suburban)		0	6	10	10
Emergency Declarations	Allentown		0	0	(4)@\$750,058	(2)@ \$152,053
	Suburban		0	0	(1)@\$110,000	(1) @ \$19,335
Significant Repairs/Upgrades: Nothing to report.						
Description of NOVs and/or SSOs: There were zero (0) NOVs and SSOs for any LCA system for June, 2021. There was one (1) bypass during June, occurring at Heidelberg Heights WWTP on 6/12-6/13. Approximately 91,000 gallons had to be bypassed after 2.95" of localized rain fell and overloaded the facility.						
Other Highlights: Nothing to report.						