



LEHIGH COUNTY AUTHORITY

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Agendas & Minutes Posted:
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BOARD MEETING AGENDA – July 13, 2020 – 12:00 p.m.

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

1. Call to Order

- **NOTICE OF MEETING RECORDINGS**

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

- *Public Participation Sign-In Request*

2. Review of Agenda / Executive Sessions

3. Approval of Minutes

- *June 22, 2020 Board meeting minutes*

4. Public Comments

5. Action / Discussion Items:

FINANCE AND ADMINISTRATION

- *Allentown Water & Sewer Lease – Proposed Settlement of Disputes (introduction of documents)*

WATER

WASTEWATER

- *Suburban Division – Lynn Township Manhole Rehabilitation Project (Approval) (goldenrod)*

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

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

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

9. Staff Comments

10. Solicitor's Comments

11. Public Comments / Other Comments

12. Executive Sessions

13. Adjournment

UPCOMING BOARD MEETINGS

July 20, 2020 (SPECIAL MEETING)

July 27, 2020

August 10, 2020

PUBLIC PARTICIPATION POLICY

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

REGULAR MEETING MINUTES

June 22, 2020

The Regular Meeting of the Lehigh County Authority Board of Directors was called to order at 12:01 p.m. on Monday, June 22, 2020, Chairman Brian Nagle presiding. The meeting was held via video and audio advanced communication technology ("ACT"), using the ZOOM internet application, due to the national COVID-19 pandemic emergency. Each Board member and other attendees of the meeting were able to hear each other attendee and be heard by each other attendee. The public could also participate in the meeting via ACT, using the ZOOM internet application. A Roll Call of Board members present was taken. Chairman Brian Nagle, Linda Rosenfeld, Ted Lyons, Kevin Baker, Jeff Morgan, Norma Cusick, Richard Bohner, and Amir Famili were present through ACT for the duration of the meeting.

Solicitor Michael Gaul was also present via ACT. Authority Staff present via ACT were Liesel Gross, Ed Klein, Susan Sampson, Phil DePoe, John Parsons, Chris Moughan, Amy Kunkel, Lisa Miller, Chuck Volk and Todd Marion.

Nate Swartz and Mike Sampson from Zelenkofske Axelrod and Chris Gibbons from Concord Public Finance were also present.

Chairman Nagle announced the Board received the Board packet in advance of the meeting; however, a revised agenda was received along with the May 2020 Financial statement paperwork that was emailed to the Board separately at a later date.

REVIEW OF AGENDA

Liesel Gross stated there are no changes to the agenda and reiterated that a revised agenda was emailed to the Board and also the May 2020 Financial statements were emailed separately and also posted to the website. There will be an Executive Session after the regular meeting to discuss a matter of potential litigation.

APPROVAL OF MINUTES

June 8, 2020 Meeting Minutes

On a motion by Richard Bohner, seconded by Norma Cusick, the Board approved the minutes of the June 8, 2020 Board meeting as written (8-0).

PUBLIC COMMENTS

None.

ACTION AND DISCUSSION ITEMS

2019 Audit & Financial Statements

Ed Klein introduced Nate Swartz and Mike Sampson from Zelenkofske Axelrod LLC to give an overview and highlights of the 2019 Audit and Financial Statements. Mike Sampson stated that the Authority was given an unmodified or clean opinion on the Authority's basic financial statements which is the highest level of assurance provided. The Authority adopted GASB 95 "Postponement of the Effective Dates of Certain Authoritative Guidance" which allowed governmental entities to delay

the implementation of certain new statements for one year primarily to provide relief due to the COVID-19 pandemic.

Mr. Swartz thanked Ed Klein and his staff for their timely, accurate assistance regarding the audit and highlighted certain information in the financial statements including a review of the change in Net Position for all funds, noting a decrease in the Suburban Wastewater fund for two years in a row and the impact of the amortization of the intangible assets booked in the City Division fund due to the outstanding lease bond debt. He reviewed other notes to the financial statements including a review of the Other Post-Retirement Employee Benefits (OPEB) liabilities. Some discussion followed.

On a motion by Norma Cusick, seconded by Linda Rosenfeld, the Board accepted the 2019 Audit and Financial Statements as prepared by Zelenkofske Axelrod LLC (8-0).

Lease Bond Refinancing Evaluation – Authorization of Professional Service Providers

Liesel Gross introduced Chris Gibbons from Concord Public Finance and gave an overview of the evaluation to refinance a portion of the bonds issued in conjunction with Allentown water and sewer Concession Lease Agreement, known as the “Lease bonds,” to take advantage of near-historic low interest rates. In order to evaluate this option, a team of professionals needs to be assembled.

Ed Klein explained the steps in the selection process and his recommendations, which include engaging Concord Public Finance as the financial advisor, AUS Consultants as an appraiser, and McNees, Wallace & Nurick for bond counsel. He noted his recommendation to contract with Arcadis to prepare the required independent engineer’s certificate. In addition, an underwriter and their associated underwriter’s counsel must be selected, and through a proposal and evaluation process, RBC Capital Markets and Janney Montgomery Scott are recommended to jointly serve as underwriters for this financing.

Chris Gibbons further reviewed the proposal process for selecting the underwriting team along with the selection of other professions as noted by Mr. Klein. He explained that the selection of AUS Consultants as the appraiser required acceptance by the City of Allentown in accordance with the terms of the Concession Lease Agreement. The City issued a letter stating its acceptance of AUS for this role, a copy of which was attached to the documents provided to the Board. Mr. Gibbons then reviewed the outstanding Lease bonds and potential new bond rates and reviewed the costs for the underwriter and other professionals selected for this team. He noted the costs would be paid from the proceeds of the bond issue, if the refinancing is completed.

Liesel Gross commented that the authorization being requested today is not a commitment to complete the bond refinancing. The authorization requested is to contract with the recommended team of professionals to complete the evaluation of a potential bond refinancing. Once the data is collected and bond documents prepared, authorization to complete the financing would be brought to the Board in the form of a financing Resolution.

On a motion by Richard Bohner, seconded by Norma Cusick, the Board approved contracting with Concord Public Finance as the financial advisor, AUS Consultants as the appraiser, McNees, Wallace & Nurick as bond counsel, Arcadis as the independent engineer, and RBC Capital Markets and Janney Montgomery Scott jointly as the underwriters with their associated underwriter’s counsel. (8-0).

Allentown Division – Emergency Declaration – Water Main Break at 17th & Sumner Sts.

John Parsons reviewed the water main break that occurred at 17th & Sumner streets on May 17, 2020. Mr. Parsons explained that the leak was isolated and repaired quickly but there was significant damage to the road and curbing, which needed to be replaced. Along with that, it was determined that the 12-inch main that ran south of the main break towards Sumner Avenue also needed to be replaced prior to street repairs.

On a motion by Linda Rosenfeld, seconded by Richard Bohner, the Board approved the Emergency Declaration for the water main repair at 17th and Sumner Avenue in the amount of \$110,319.00 (8-0).

Suburban Division – Additional (Redundant) Water Supply – Small Satellite Divisions

Amy Kunkel gave an overview of the project describing the Madison Park North water system, which was acquired by the Authority in 2010 and includes a single groundwater source. This project will address the development of an additional well as a secondary water source and as a backup for the system. The Authority worked with ARRO Consulting to select a well site that is on private property. A temporary easement was secured and step-drawdown testing was performed, and the new well was determined to be capable of supplying 45 gallons per minute of water to the system. DEP has approved a combined pre-drilling and aquifer test plan and the next step is to perform a sustained pumping test and also monitor three nearby wells to be sure there are no adverse impacts. Upon completion and approval of this request, the design of the well building and piping will be the next phase.

On a motion by Linda Rosenfeld, seconded by Norma Cusick, the Board approved the Capital Project Authorization for the Pre-Design Phase in the amount of \$76,580.00 which includes the Professional Services Authorization to ARRO Consulting, Inc. in the amount of \$42,400.00 and the Professional Services Authorization to Odenheimer Co. in the amount of \$19,180.00 (8-0).

Suburban Division – Heidelberg Heights Consent Order & Agreement (Resolution No. 6-2020-3)

Liesel Gross summarized the challenges over the past few years with the Heidelberg Heights sewer system and the plant bypasses and other permit violations that have occurred during wet-weather events. The Authority has been working cooperatively with the Pa. Department of Environmental Protection (DEP) to develop a corrective action plan to address the system's challenges. She outlined the major components of the corrective action plan that was developed and presented to the Authority Board in 2019. There are three critical components of the plan: ongoing system monitoring to identify system leakage, annual capital projects to replace the public portion of the sewer collection system, and inspection of private service laterals and basements to identify leaking laterals and unauthorized connections. Ms. Gross explained that to officially approve the corrective action plan, DEP has prepared a Consent Order and Agreement which was attached to the Board's agenda packet. Ms. Gross noted that the Consent Order and Agreement must be approved by a Resolution of the Authority Board, which will serve as the Authority's commitment to complete the work outlined in the corrective action plan.

Amir Famili asked how the Authority would be able to recover the costs associated with the plan due to the small size of the system. Liesel Gross explained the system is part of the Authority's common rate system, which includes several other small sewer systems operated by the Authority. The costs to manage all systems are combined into the rate structure applied to the Authority's customers. Any rate adjustments needed to fund the corrective action plan will be reviewed as part of the development of the 2021 budget.

Chairman Nagle suggested obtaining a grant to help alleviate some of the costs. There was some Board discussion.

On a motion by Linda Rosenfeld, seconded by Norma Cusick, the Board approved resolution No. 6-2020-3 authorizing the agreement of the PA-DEP Consent Order for Heidelberg Heights Sewer System (8-0). A Roll call vote was taken:

Brian Nagle – yes
Linda Rosenfeld – yes
Ted Lyons – yes
Jeff Morgan – yes
Kevin Baker – yes
Norma Cusick – yes
Amir Famili – yes
Richard Bohner – yes
Scott Bieber – not present

Suburban Division – Asset Management Upgrade Project – Construction Phase

Chuck Volk described the project for the Spring Creek Pump Station Roof Replacement that consists of removing the roof decking and membrane. He noted the roof has been leaking for an extended period and can no longer be repaired through regular maintenance. He also noted that the bids came in lower than the engineer's estimate.

On a motion by Norma Cusick, seconded by Richard Bohner, the Board approved the Capital Project Authorization for the Construction Phase in the amount of \$93,950.00 which includes the Construction Contract to Munn Roofing Corporation in the amount of \$71,450.00 and the Professional Services Authorization for the Construction Phase Engineering to D'Huy Engineering in the amount of \$7,500.00 (8-0).

MONTHLY FINANCIAL REVIEW

Chairman Nagle announced that the May 2020 report was received via email the day before and asked Ed Klein to provide a brief review with highlights and any questions can be answered at another time after the Board has had more time to review the statements. Mr. Klein provided a brief review of the May 2020 financial report, highlighting variances in year-to-date performance against the budget and forecast.

Amir Famili suggested recalibrating the forecast due to the COVID19 pandemic emergency. Mr. Klein stated there is a plan to revisit the forecast, especially as it relates to capital expenses as many projects have been delayed due to the pandemic. Liesel Gross commented that revenues in the Allentown Division appear to be lower as a result of reduced commercial water sales during the pandemic. She noted the Authority is participating in a national study by Raftelis on the impact the COVID-19 pandemic on utility water sales. Chairman Nagle asked for an overall summary of the pandemic's impact on the Authority. Ms. Gross said a report could be prepared for the second meeting in July.

MONTHLY SYSTEM OPERATIONS OVERVIEW

John Parsons gave an overview of the May 2020 report highlighting the significant repairs and upgrades that occurred during that month.

STAFF COMMENTS

Liesel Gross commented on the Authority's COVID-19 pandemic response, noting that the advanced work that was done early in the process has made it easier to transition through each phase of the guidelines provided by the state Department of Health. Daily temperature screenings are being conducted for all employees and contractors who are working on-site and all who are able to work from home are continuing to do so. The Authority has made some minor adjustments to staffing schedules and safety protocols to prepare for the transition to the "green" phase on Friday, June 26th. She inquired about the Board's preferences regarding meeting format in the future when the restrictions in the region become more relaxed with respect to the allowable size of meetings and social gatherings. After some discussion, the Board agreed that meetings will continue to be held via Zoom until further notice.

Susan Sampson reported that starting on June 24th, the Authority's website will be updated to a new design that will allow for easier navigation for customer use and simplified administration for staff content updates.

Chairman Nagle commended the Staff for their great work during the COVID19 pandemic and the efforts of Chris Moughan to provide technology support to the Authority to allow for remote operations and Board meetings.

SOLICITOR'S COMMENTS

None.

PUBLIC COMMENTS / OTHER COMMENTS

None.

EXECUTIVE SESSION

Chairman Nagle announced that an Executive Session will be held after the regular meeting to discuss a matter of potential litigation.

ADJOURNMENT

There being no further business, the Chairman adjourned the meeting at 1:37 p.m.

Richard Bohner
Secretary



LEHIGH COUNTY AUTHORITY

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MEMORANDUM

TO: LCA Board of Directors
FROM: Liesel Gross
DATE: July 10, 2020
RE: Tentative Resolution to Allentown Water / Sewer Lease Disputes

Documents Attached:

1. Amendment to the Concession Lease Agreement
2. Amendment to the LCA Suburban Division Water Supply Agreement
3. Amendment to the Memorandum of Understanding – Capital Cost Recovery Charges
4. Stand-Alone Dispute Settlement Agreement

Overview:

Since entering into the 50-year Concession Lease Agreement (Lease) for the operation of the Allentown water and sewer systems in 2013, Lehigh County Authority and the City of Allentown have worked together to ensure the water and sewer service provided to all customers is maintained at a high standard for safety, environmental protection and reliability. Despite sharing this goal, various disputes have arisen over the years relating to the financial performance of the Lease. At the heart of the disputes is a concern about how the City's vast network of water and sewer system assets will be maintained, and who will pay for the necessary upgrades as the system ages. LCA estimates about \$150 million in system improvements are needed over the next 10 years, which is normal for a system the size and age of Allentown's. The disputes have come at a great cost to both LCA and the City in the form of high legal expenses and a strain on the partnership between the organizations.

For the past two years, LCA and City leaders have worked collaboratively to seek solutions to resolve the disputes and ensure the sustainability of the Lease for the benefit of LCA, the City and the public we serve. Today, we are pleased to share the results of this collaboration with the LCA Board for additional review. The attached documents contain the terms of a comprehensive and integrated tentative agreement that address a wide span of issues including:

- Application of Lease rates to City customers, with phase-in of new rates over a four-year period
- Future rate relief to be provided by LCA after financial metrics are met
- Revised water supply agreement to ensure equitable distribution of treatment costs to all users
- Refinements to the terms and methods for recovering the cost of capital projects
- Discussion of options to explore when the Lease expires in 2063
- And many other ancillary items that solidify the partnership approach between LCA and the City

This is an important agreement that recognizes the value of the partnership between LCA and the City. Access to safe and reliable water and sewer service is critical for a vibrant and growing region like ours!

Every drop matters. Every customer counts.

Review & Approval Process:

The agreements require three separate approvals in order to be placed into effect:

1. City Council
2. LCA Board of Directors
3. LCA Bondholders (via bondholder consent or bond refinancing)

Allentown City Council will be reviewing the agreements in the weeks ahead according to a meeting schedule to be posted on the City's website.

For the LCA Board review and potential approval, the following schedule has been developed:

July 13, 2020 – Introduction & Preliminary Review

At this meeting, LCA staff will review the attached documents in summary form to introduce the major components of the agreement. This will not be a detailed review, and we recommend holding detailed questions and public comments until the next meeting, when a comprehensive presentation of the agreement will be provided.

July 20, 2020 – Special LCA Board Meeting – Detailed Review

LCA staff will provide a detailed presentation of the Lease history, summary of challenges, and components of the agreements developed to resolve all outstanding disputes. This meeting will be dedicated for this purpose and public comment will be welcomed and recorded. Public comment may also be submitted by email to LCABoard@lehighcountyauthority.org.

July 27, 2020 – Third Review & Request for Approval

At this meeting, any public input received will be reviewed and Board questions answered. If the LCA Board is satisfied with the agreements, approval will be requested.

Following LCA Board and City Council reviews and potential approval, LCA staff and financial advisors will present details of the bond consent process, which will likely involve refinancing of 51% of the original lease bonds in order to achieve consent. This information will be presented, and approval sought from the LCA Board, in August.

**AMENDMENT TO THE ALLENTOWN WATER AND SEWER UTILITY
SYSTEM CONCESSION AND LEASE AGREEMENT**

Dated as of May 1, 2013

Between

CITY OF ALLENTOWN

AND

LEHIGH COUNTY AUTHORITY

THIS AMENDMENT to the Allentown Water and Sewer Utility System Concession and Lease Agreement (hereinafter referred to as the “Lease”) is made and entered into this ____ day of _____, 2020, by and between the CITY OF ALLENTOWN, a Home Rule City of the Third Class organized and existing under the laws of the Commonwealth of Pennsylvania (hereinafter referred to as “the City”) and the LEHIGH COUNTY AUTHORITY, a municipal authority organized and existing under the Municipality Authorities Act of 1945, as amended (hereinafter referred to as “LCA”).

WITNESSETH:

WHEREAS, the City and LCA entered into a certain Water Supply Agreement (the “Water Supply Agreement”), dated as of January 7, 2009; and

WHEREAS, the City and LCA (hereinafter sometimes referred to as the “Parties”) entered into a certain Allentown Water and Sewer Utility System Concession and Lease Agreement (the “Lease ”), dated as of May 1, 2013, pursuant to which the City leased its Water Plant and Distribution System and Sewer Utility System (the “System”) to LCA, as Concessionaire, and granted LCA the right to operate the System in order to provide utility services in accordance with the provisions of the Concession Lease Agreement; and

WHEREAS, the City and LCA entered into a certain Memorandum of Understanding with respect to Capital Cost Recovery Charges (hereinafter “CCRC” or “CCRCs”), dated July 1, 2015 (the “CCRC MOU”), because neither the Lease nor the Operating Standards associated therewith contained details on how to procedurally handle CCRCs and the Parties wished to establish, in writing, responsibilities and procedures in regard to the usage, development and application of CCRCs; and

WHEREAS, diverse and distinct disagreements and disputes arose between the City and LCA after the Lease was entered that are in various stages of resolution per the terms of Article 19 of the Lease, and which include those known by the Parties as the Fraudulent Inducement Claim, Monthly Billing Dispute, Roof Project Dispute, Employee

Benefits Claim, Employee Sick Leave Dispute, and the Surcharge Dispute, and which include all other current disputes not specified above (“the Disputes”); and

WHEREAS, the Parties specifically intend to memorialize the terms of the settlement of the Disputes by entering into the following Agreements contemporaneously, each of which shall be read and construed together as integral parts of the comprehensive, global settlement between the Parties to terminate their respective claims in the Disputes (the “Integrated Agreements”):

- A Stand-Alone Dispute Settlement Agreement (for the Disputes not otherwise addressed in the Amendments to the Water Supply Agreement, the Lease and the CCRC MOU);
- Amendment to the Water Supply Agreement;
- Amendment to the Lease; and
- Amendment to the CCRC MOU.

NOW THEREFORE, the Parties hereto, in consideration of the mutual promises and covenants contained herein and intending to be legally bound hereby, mutually agree to amend the Lease as follows:

1. The forgoing recitals are incorporated by reference herein as though more fully set forth at length, and undefined terms shall have the meaning set forth in the Lease.

2. Modification to CCRC

Since the Closing Date, LCA and the City have developed practices regarding the calculation of the CCRC in accordance with the Lease which are documented in the CCRC MOU.

In order to support improved cash flows for LCA and to support the use of alternative and lower-cost financing options for Major Capital Improvements, the Parties desire to adjust these practices by amending the definitions of the terms “Capital Cost Recovery Charge” and “Cost Recovery Period” beginning January 1, 2021 for new Major Capital Improvements for which no CCRC is currently in place as of the date of this Amendment. The City and LCA agree that previously approved CCRCs will remain in full force and effect and will not be subject to recalculation or adjustment in accordance with this Amendment.

Section 1.1 (Definitions) is amended to delete the definition of the term “Capital Cost Recovery Charge” and replace it with the following:

Capital Cost Recovery Charge means, for a particular Reporting Year, the annual amount that the Concessionaire may charge during the Cost Recovery Period with respect to the cost of a Major Capital improvement consisting of (i) the amounts required to pay

the principal of and interest on debt issued or incurred to finance in whole or in part the Major Capital improvement plus (ii) a return on equity in the amount of 5.445107% on any LCA existing cash reserves used in whole or in part to fund Major Capital Improvements.

Section 1.1 (Definitions) is amended to delete the definition of the term “Cost Recovery Period” and replace it with the following:

Cost Recovery Period means, in the case of cash or equity funded Major Capital Improvements, the period of time from the later of (i) January 1, 2016 or (ii) the implementation date of the Capital Cost Recovery Charge (as set forth in 4.5 (f)) to the earlier of (i) the 360th month following the implementation of the Capital Cost Recovery Charge or (ii) the last month of the useful life of the Major Capital Improvement. The Cost Recovery Period means, in the case of bond or loan funded Major Capital Improvements, the greater of the bond or loan repayment schedule or fifteen (15) years.

Section 4.5 (Major Capital Improvement Project Implementation) is amended to add new subsection (f), to read as follows:

CCRC Implementation Timing:

In the event that LCA uses solely debt (e.g. loans, bonds) to fund any MCIP, the CCRC incorporating such MCIP will be implemented on January 1st of the calendar year in which the debt payments are due, so long as this information is available and submitted to the City and the Substantially Complete Design review and approval (per Lease §§ 4, 5(b)(iv)) is completed prior to October 1st of the prior year.

In the event that LCA uses solely equity (e.g. cash, securities) to fund a MCIP, the CCRC incorporating such MCIP will be implemented on January 1st of the calendar year so long as the Substantially Complete Design approval (per Lease §4,5(b)(iv)) is completed prior to October 1st of the previous year. When a CCRC is implemented in accordance with this provision, the CCRC will be adjusted based on final actual project costs calculated after project completion, and a one-time CCRC adjustment shall be made to reflect the variance between the cost estimated at the time of Substantially Complete Design and the final project cost.

In the event that LCA uses a combination of debt and equity to fund a MCIP, LCA shall provide a CCRC proposal (Lease §4.5(c)) to include the timing of the incorporation of the CCRC and the Cost Recovery Period to be applied, for the City's consideration and in accordance with the terms of any memoranda of understanding regarding CCRC's that the Parties may execute from time to time. At no time will a CCRC be implemented for a

project that will provide annual cost recovery to LCA that is less than the debt service payment due for debt that is issued to fund any portion of the project.

These changes will begin in 2021 and apply to new MCIP for which no CCRC is currently in place. LCA and the City agree that previously approved CCRCs will remain in force as previously approved and will not be subject to recalculation or adjustment in accordance with this agreement.

3. **Modification of Definition of “Major Capital Improvement”- Aggregation**

The definition of the term “Major Capital Improvement” in Section 1.1 of the Lease states: “... Capital improvements to the System may be *aggregated* and treated as a single capital improvement under clause (d) of this definition when (i) such capital improvements are undertaken to replace water mains or sewer lines and (ii) construction of each such capital improvement commences in the same calendar year...” [Emphasis added.]

Section 1.1 (Definitions) is amended to add the following to the definition of the term “Major Capital Improvement”:

The following types of capital improvements shall not be deemed to be an "aggregation" of individual project components and are therefore considered to be a MCI so long as all other terms of the definition are met:

A. The equipment/components (equipment), structures or treatment units which are included in the capital improvement have the same primary function or purpose in a treatment process.

The equipment, structures, or treatment units contemplated above must be in the same physical location. For purposes of this clarification, the "same physical location" means under the same roof or in adjacent buildings for interior equipment, structures or treatment units or, for exterior capital improvements, such equipment, structures or treatment units must be physically and operationally performing with similar equipment, structures or treatment units as part of the same treatment process.

A MCI may be a single structure or treatment unit that has multiple types of equipment/components that all must be constructed at the same time and are ancillary, integral, and necessary to the complete and functional operation of the equipment or treatment unit which was the MCI's primary focus. The acceptable auxiliary components to the primary equipment or treatment unit would generally include electrical, mechanical, and control components; all connected valving, piping, gauges and similar items; and smaller connected support equipment. With the exception of the replacement

of an existing building or the construction of a new building, the acceptable auxiliary components would not include structural elements such as walls, windows, lighting, office or administrative areas, laboratory areas, heating/ventilating/air conditioning (HVAC), personnel areas, and roofs, unless replacement was unavoidable during construction activities and identified in the project design. For clarification purposes, the dewatering building at the wastewater treatment plant is not considered a single structure as equipment in the structure serve more than one purpose or function.

If a treatment process requires that a certain number of pieces of equipment, structures, or treatment units need to be in service to provide required treatment of water, sewage, or their byproducts, then the MCI shall be constructed as a continuum allowing for completion of a single unit and proceeding to the next. . The Authority will be required to detail the planned progression of construction activities, including a description of the factors influencing the proposed progression schedule, as part of the MCI Conceptual Design (Section 4.5(a) of the Lease) and MCI Substantially Complete Design (Section 4.5(b) of the Lease) and the project must proceed accordingly.

B. Full-scale addition or replacement of water meters, meter reading units, or related equipment (including leak sensors) located at customer properties ("customer metering devices" or "CMDs"), when such work is completed as part of a single project. For replacement projects, LCA's determination of the need for replacements will be based on testing of meter accuracies outlined in the then current edition of American Water Works Association publication, M6 – Water Meter- Selection, Installation, Testing, and Maintenance. Unless a large-scale decline in meter accuracy is observed, testing of CMDs would not be conducted with the intended purpose of possibly developing a replacement project until the CMDs intended to be included had reached their life expectancy as determined by the CMD manufacturer(s).

4. Funding for Preliminary Tasks Relating to Event Driven Capital Improvements

Section 1.1 (Definitions) is amended to add the following definition of the term “Event Driven Capital Improvements”:

Event Driven Capital Improvements means large capital improvements required to address future regulatory mandates which are not currently required, such as treatment of pharmaceuticals at the Wastewater Treatment Plant. Responding to such mandates is expected to require significant preliminary work including feasibility analyses, engineering evaluations, financial assessments, environmental reviews, and legal reviews prior to designing and implementing system improvements to address the new requirement. LCA and the City seek to establish a funding source for these preliminary tasks to ensure resources are available to initiate the work, and to ensure regulatory compliance can be maintained as requirements change over time.

Beginning in 2021, LCA will annually contribute at least \$250,000 but no more than \$500,000 into a dedicated escrow Reserve Account for Event Driven Capital Improvements (“Reserve Account”). LCA will continue to make annual contributions to the Reserve Account until the balance reaches \$2,000,000. LCA will provide an annual financial report on the reserve account balance, contributions and uses.

In determining whether a regulatory change or other mandate may be considered as an Event Driven Capital Improvement that is eligible for the use of the funding from the Reserve Account, an estimate of the project scope will be made by an engineering firm or LCA staff, as applicable, depending on the type of regulatory change being evaluated. If LCA is expected to incur \$10,000,000, as adjusted annually for inflation, or more in costs to comply with the new regulation or mandate, the use of Reserve Account funds to address preliminary planning tasks will be allowed. However, the Parties may agree to use Reserve Account funds for preliminary tasks related to smaller projects, subject to LCA's submission of a cost and funding proposal for such projects as identified in the Service Charge Adjustment - Change of Law MOU.

For each Event Driven Capital Improvement identified and agreed upon by the Parties, LCA will use up to \$750,000 from the Reserve Account to pay for pre-planning, studies, engineering and other reviews as described above. If more than \$500,000 is invoiced and paid in a calendar year from the reserve account on an applicable project, LCA will use the current year's contribution towards those expenses in lieu of funding the Reserve Account. The use of funds from this reserve account will not be subject to cost recovery through any resulting CCRC or Change of Law fee that may be applicable for the remainder of the project costs.

5. Renewal/Non-Renewal of the Lease at the End of Lease Term

Section 1.1 (Definitions) is amended to add a definition of the term “Final Cumulative Cash Balance” as follows:

“Final Cumulative Cash Balance” refers to the Cumulative Cash Balance that exists on December 31st of the calendar year prior to the termination of the Lease Term, as reported in the Concessionaire’s annual audited financial statements for that year.

Section 1.1 (Definitions) is amended to add a definition of the term “Master Plan” as follows:

“Master Plan” means LCA’s most recently prepared Comprehensive Planning Study required under the Operating Standards Capital Improvements Section A.9.1 and Section B.5.4.2.

The Parties agree to amend the Lease as follows:

Section 16.4 (Consequences of Termination and Reversion) is amended to add a new Paragraph (n):

(n) **Extension of or Rebidding of Lease; Sale of System.** LCA may continue as the Operator and Concessionaire or may purchase the System through a competitive bidding or other sale process established by the City.

(i) **Negotiated Lease Extension-Preconditions.** As a precondition to any negotiated extension of the Lease, the parties shall have received a favorable opinion of counsel as set forth in subsection (iii) hereof. Upon receipt of such favorable opinion, LCA shall, not less than three years before the Termination date, submit to the City a written request for an extension of the Lease. In evaluating LCA's request for an extension, the City shall consider whether LCA has performed satisfactorily in meeting the requirements of the Lease. Evaluation by the City of such satisfactory performance shall consist of the following factors: (1) LCA's compliance in all material respects with the Lease, the Operating Standards and all regulatory requirements applicable to LCA's operation of the System, along with timely responses to any non-compliance with these requirements (for purposes hereof, a response shall be deemed timely if it is delivered by LCA in accordance with the requirements of the Lease and applicable law); (2) LCA's completion of capital improvements to the System in substantial compliance with the Master Plan and requirements of the Lease; (3) LCA's submission of timely responses to any Notices of Violation ("NOVs") from the City or a regulatory agency (for purposes hereof, a response shall be deemed timely if it is delivered by LCA in accordance with the requirements of the Lease and applicable law); and (4) the existence of any outstanding or unresolved Operational Liquidated Damages claims by the City.

(ii) **Procedure for Approval or Denial of a Request for Extension of the Lease.** Within 60 days of receipt of the renewal request from LCA, the City shall provide a written response informing LCA whether its request for renewal has been approved or denied. In the case of a denial by the City of LCA's request for a renewal, the City shall set forth in the written response the specific deficiencies which formed the basis for its denial.

In the event LCA's request for renewal is denied by the City, LCA may submit within 90 days of receipt of the written denial a written action plan for remediation of the specified deficiencies. This plan shall include completion dates for all action plan items such that all action plan items are completed, functional, and on-line six (6) months prior to expiration of the Lease or as otherwise agreed to by the Parties. The City shall review LCA's remediation plan and, if acceptable, shall approve LCA's Lease renewal request, such approval to not be unreasonably withheld. Approval shall not be considered unreasonably withheld if it is based on a determination that LCA's written action plan will not result in the remediation of all of the specified deficiencies identified by the City in its written denial.

Any dispute arising out of or relating to a request for renewal of the Lease by LCA hereunder shall be resolved as set forth in Article 19 of the Lease.

(iii) **Legal Determination of Lease Extension.** Upon written request of LCA, delivered not later than five years before the Termination Date, the Parties shall engage a mutually acceptable law firm from the top 50 Pennsylvania firms by size, with no physical presence in the Lehigh Valley, as published by the Pennsylvania Law survey or similar publication to provide a legal opinion as to the legality of an extension of the Lease. Said firm shall not have served as counsel to the City or LCA during the previous ten (10) years. Such opinion shall be required from the selected law firm within sixty (60) days of retention. Should such opinion confirm that the Parties may extend the Lease, LCA shall be entitled to submit a written request for a renewal in accordance with subsection (i) hereof. The term of any renewal will be negotiated between the Parties but shall be no less than thirty years nor longer than fifty years.

The costs of the law firm selected by the Parties to deliver the opinion hereunder shall be shared equally by the Parties. All other costs incurred by the Parties in connection with the delivery of the opinion specified herein shall be the sole responsibility of the Party that incurred such cost.

(iv) **Bidding for New Lease or Sale of System.** If the Lease is not renewed pursuant to subsection (i) hereof, the City in its sole discretion may elect to commence a new competitive bidding process or other process for the sale, lease, or other transaction involving a disposition of the System, and LCA shall not be precluded from participating in a competitive bidding process, so long as it complies with all uniform bidding requirements established by the City applicable to all prospective bidders.

The City will be responsible for paying all costs in connection with a new competitive bidding or other process to sell or lease the System, including, but not limited to, the costs of preparing legal documents, making presentations, providing information, and developing programmatic activities. LCA shall assist the City in such manner as the City may require, consistent with Article 16 of the Lease, including coordination with the City for site visits of the System by prospective purchasers.

In the event the City determines to enter into a new bidding process for the sale, lease, or other transaction involving a disposition of the System, there will be no inclusion of Uncompleted Work in the bid documents and any bidder will be required to complete the "Five-Year Capital Improvements" within 5 years of the Transition date.

In the event LCA does not submit a written request in accordance with subsection (i) hereof or LCA's request is not considered acceptable under subsection (ii) hereof, the City may begin its due diligence and preparation of documents such that a Request for Qualifications and Statement of Interest for prospective lease concessionaires and/or purchasers may be issued no earlier than thirty (30) months prior to the Termination date. The bidding or sale process will be conducted on a schedule such that an award can be

made and contracts finalized so that the successful bidder will have at least 6 months for transition purposes.

(vii). **Discussion of Alternative Service Delivery Options.** By mutual agreement and no later than three years prior to the Termination date, the City and LCA will enter into good faith discussions to evaluate and consider regional or consolidated service delivery options to benefit the customers and municipalities served by the System. These discussions will include an evaluation of regional approaches to providing water and sewer services to the City, portions of the LCA's non-City service area that receive water and/or sewer service from the System, and other municipalities that receive water and/or sewer service from the System that may wish to enter these discussions.

(ix) **Extension of Lease; Completion of Improvements.** If LCA continues as the Operator and Concessionaire subsequent to the termination of the Lease (Termination) through a negotiated Lease extension, LCA shall use Final Cumulative Cash Balance generated under the Lease to complete the capital improvements set forth in its next five (5) year Capital Plan and in the capital improvements recommended for the first five years of the most recent Master Plan (collectively the "Five-Year Capital Improvements"). There shall be no charge to the City rate payers for the Five-Year Capital Improvements so long as accumulated cash remains available for future capital improvements.

6. Billing Frequency

Quarterly billing frequency for City ratepayers with meter sizes 5/8", 3/4" and 1" will not change as a result of this Settlement Agreement except as follows:

After the second full calendar year following the implementation of rates enacted under Paragraph 7 of the Amendment to the Lease Schedule 3, LCA may, at its discretion, undertake a study to determine whether other billing options would be beneficial for LCA and City ratepayers. Issues that will be studied include a review of collections performance, affordability, benefits of various billing options and frequencies, solicited customer preferences and other factors.

If, after review and discussion with the City, LCA determines that implementation of changes to its billing frequencies will be beneficial, any billing frequency changes will occur with no implementation costs passed on to the City ratepayers.

7. Phased Adjustments to Rates

The City and LCA agree that an adjustment of rates to the fixed charges for water and sewer meter sizes 5/8", 3/4" and 1" is necessary to provide funding for capital

improvements required to properly maintain the System in a timely manner so as to continuously meet regulatory requirements and maintain the structural integrity and functional operation of the facilities and infrastructure. Larger meter sizes (1.5“, 2“, 3“, 4“, 6“, and 8“) were previously converted.

In balancing the financial needs for capital improvements and impacts on rate payers, the adjustment of rates will be transitioned and implemented over a four-year period. The rate adjustment will be introduced in increments of 50% for the period October 1, 2020 to December 31, 2020 and the year 2021, 75% for the years 2022 and 2023, and the full 100% adjustment in 2024 (the “Transition Period.”)

More specifically, the Parties agree that **Schedule 3** of the Lease is hereby amended as follows:

The column of rates labeled as “Daily Charge (Quarterly Bills)” is retitled as “Previous Daily Charge (“PDC”)” and the column of rates labeled as “Monthly Bills” is retitled as “Current Daily Charge (“CDC”).”

The CDC will continue to be adjusted in accordance with Section 7.1(e) of the Lease during the Transition Period. After the completion of the fourth year of the transition, the CDC will be in full effect and will continue to be adjusted in accordance with Section 7.1(e) of the Lease. At that time, the PDC column will be deleted from the Schedule of Service Charges.

Transition Phase 1A: From October 1, 2020 to December 31, 2020, the Schedule of Service Charges for fixed charges will equal the PDC plus 50 percent (50%) of the difference between the CDC and PDC. Expressed as a formula, the rate will be calculated as follows:

$$\text{Phase 1A Daily Charge} = 2020 \text{ PDC} + [(2020 \text{ CDC} - 2020 \text{ PDC}) \times (0.50)]$$

Transition Phase 1B: For calendar year 2021, the Schedule of Service Charges for fixed charges will equal the PDC plus any applicable increase under Section 7.1(e) (“2021 PDC”) plus 50 percent (50%) of the difference between the CDC plus any applicable increase under Section 7.1(e) the 2021 CDC and the 2021 PDC. Expressed as a formula, the rate will be calculated as follows:

$$\text{Phase 1B Daily Charge} = 2021 \text{ PDC} + [(2021 \text{ CDC} - 2021 \text{ PDC}) \times (0.50)]$$

Transition Phase 2: For calendar year 2022, rates will equal the PDC plus any applicable increase under Section 7.1(e) (“2022 PDC”) plus 75 percent (75%) of the difference between the CDC plus any applicable increase under Section 7.1(e) (“2022 CDC”) and the 2022 PDC. Expressed as a formula, the rate will be calculated as follows:

$$\text{Phase 2 Daily Charge} = 2022 \text{ PDC} + [(2022 \text{ CDC} - 2022 \text{ PDC}) \times (0.75)]$$

Transition Phase 3: For calendar year 2023, rates will equal the PDC plus any applicable increase under Section 7.1(e) (“2023 PDC”) plus 75 percent (75%) of the difference between the CDC plus any applicable increase under Section 7.1(e) and the 2023 PDC. Expressed as a formula, the rate will be calculated as follows:

$$\text{Phase 3 Daily Charge} = 2023 \text{ PDC} + [(2023 \text{ CDC} - 2023 \text{ PDC}) \times (0.75)]$$

Transition Phases 1A, 1B, 2 and 3 as described above shall only apply to meter sizes 5/8”, 3/4” and 1”. For all other meter sizes, (1.5”, 2”, 3”, 4”, 6”, and 8”) the full CDC will be in effect for all transition years.

Transition Phase 4: For calendar year 2024, the full CDC plus any applicable increase under Section 7.1(e) will be in effect for all meter sizes.

LCA will be responsible for completing all calculations and will provide the calculations and all support documents to the City for review and approval. City will provide confirmation of the calculations prior to the adjusted rates being posted or included in any public documents. Rates will be calculated and rounded to five (5) decimals.

In the event that this Amendment shall not become effective by October 1, 2020 the rate provisions of this paragraph 7 shall be effective retroactive to October 1, 2020

8. Rate Relief

The Parties agree to amend the Lease as follows:

Section 1.1 (Definitions) is amended to add a definition of the term “Cumulative Cash Balance” as follows:

“Cumulative Cash Balance” is the Concessionaire’s unrestricted cash balance as currently reported as “Current Assets / Cash & Cash Equivalents” for LCA’s “City Division Fund” in its annual audited financial statements for the prior year, but reduced by the amount of funding required to meet the Trust Indenture requirement for an Operation and Maintenance Reserve Fund (“O&M Reserve Fund”), which is funded through Current Assets / Cash & Cash Equivalents. Therefore, the Cumulative Cash Balance is calculated following payment of all operating expenses, non-operating expenses including debt service payments, Lease related obligations and expenses, and any funding provided to capital improvements. Excluded from the Cumulative Cash Balance are any cash balances that serve as reserves required to satisfy the terms and

obligations of Concession Lease Agreement and any amendments thereof and any reserves required by the Trust Indenture. The Cumulative Cash Balance will be reported to the City annually upon completion of the annual financial audit along with the Concessionaire's financial statements as required by the Lease and any other documentation required to calculate the Cumulative Cash Balance,

A determination of the potential for rate relief (Rate Relief) will be made annually in time to be included in LCA's forthcoming budget and rate schedules which would include the determined rates for the forthcoming year for the City rate payers. LCA shall potentially provide Rate Relief to City ratepayers if LCA's Cumulative Cash Balance is at least two (2) times the average annual capital improvements cost as shown in the then-current 5-year Capital Plan ("Cash Balance Metric"). If the Cash Balance Metric is equal to 2.0 or greater than 2.0, Rate Relief can be implemented provided one of the following conditions (Financial Metrics) have also been satisfied:

A). LCA's 2013 and 2018 Revenue Bonds issued in connection with the Lease acquisition and System improvements ("the Bonds") have been paid in full under the terms and rate schedule in place at the date of signing, without refinancing; or

B) The Bonds are outstanding, are current in debt service payments, all requirements with respect to the Bonds have been met, including full funding of all required reserve amounts, the Debt Service Coverage Ratio is at least 1.70, and any Capex Loans issued prior to the signing have been paid, without refinancing; or

C) In the event the Bonds and any bonds issued by LCA to refund the Bonds ("Refunding Bonds") are outstanding, the Bonds and/or Refunding Bonds are current in debt service payments, all requirements of any indenture or loan agreement with respect to the Bonds and/or Refunding Bonds have been met, including full funding of all required reserve amounts, the Debt Service Coverage Ratio is at least 1.70, and any Capex Loans issued prior to the signing have been paid, without refinancing.

Provided that both the Cash Balance Metric and the Financial Metrics are met, Rate Relief shall be provided and equal to fifty percent (50%) of the difference between LCA's Cumulative Cash Balance and two (2) times the average annual capital improvements cost as shown in the then-current 5-year Capital Plan.

The form of Rate Relief will be determined annually between the Parties and may include: (a) elimination or reduction of the CCRC to be applied in the following calendar year, or a portion thereof; (b) elimination or reduction of a Change of Law or DRBC charge to be applied in the following year, or a portion thereof; (c) reduction in the water volume or sewer flow charge to be applied in the following year from the charge that is allowable under the terms of the Lease, with a calculation showing that that reduction will provide the rate relief specified; and/or (d) reduction in the water or sewer fixed charge to be applied in the following year from the charge that is allowable under the terms of the lease. At no time will LCA eliminate or reduce the rate applied to any water

or sewer signatory that is based on actual cost recovery calculations, including but not limited to LCA's purchase of water for its Suburban Division and all municipal sewer signatories with similar cost recovery provisions.

If LCA takes any such action to provide Rate Relief via the methods described above and LCA's financial condition changes such that Cash Balance Metrics or Financial Metrics are no longer able to be met, LCA shall have the right to implement the full rates allowable under the terms of the Lease as if rate relief had not been provided the previous year.

In determining whether the Cash Balance Metrics or Financial Metrics have been met, the portion of any bonds or other borrowing that might be used to expand Kline's Island Wastewater Treatment Plant for the benefit of municipalities other than the City of Allentown will not be considered in the application of the Rate Relief terms of this Agreement. It is expected that such funding will be paid by the beneficiaries of any such capacity expansion project(s).

9. City Water / Sewer Fund Payment

To support the City's administration of the Lease along with the City's other related water and sewer expenses including regulatory review and permitting, among others, LCA will contribute \$400,000 annually to the City for such expenses beginning in 2021. Payment terms including cost escalation, payment due dates, and interest charges for past-due payments will be identical to those of the Annual City Payment in Section 3.24 of the Lease; however, LCA shall not be required to pre-fund this payment via the use of an escrow account.

This \$400,000 payment shall be in addition to the Annual City Payment in the sum of \$500,000 as defined in Section 1.1 of the Lease Concession Agreement.

10. Modification to Operating Standards- Water Distribution Leak Detection

The City and LCA agree to amend **Schedule 4 (Operating Standards)** to the Lease with respect to the Water Distribution Leak Detection investigations requirements as follows:

Schedule 4 (Operating Standards), Part A (Water System Operating Standards), Section 6.10.2. a (Leak Detection) is hereby amended, beginning for the year 2021 and continuing for four years through the year 2024, to increase the requirement for water distribution leak detection from 110 miles of pipe per year minimum to 165 miles per year.

Schedule 4 (Operating Standards), Part A (Water System Operating Standards), Section 6.10.2. a (Leak Detection) is further amended to add the following paragraphs:

Every four (4) years, with the first being 2024 and the second 2028, representatives of the City and LCA will review leak detection history and repairs, main breaks with consideration for weather conditions, water audits as presented in the “Annual Consulting Engineer’s Report for the Allentown Water and Sewer Utility System Concession,” sinkhole history, and similar concerns which might affect or impact continuation or modification of the replacement mileage. As a result of this review, the City and LCA shall agree upon the requirement for water main replacement and leak detection quantities for the following four-year period. The annual mileage determination will never be less than one (1) mile per year or more than two (2) miles per year but may be set at increments of one quarter mile per year between those limits as may be agreed by the Parties.

Should LCA fail to comply with the leak detection quantity requirements that is in effect during a given year within the four-year period and as had been agreed to by the Parties, the requirements under Schedule 4, Part A, Section 6.19 of the Operating Standards shall return to the initial conditions under the Lease in the following Calendar year and this section of the Agreement shall become null and void.

11. Modification to Operating Standards- Water Distribution Pipeline Replacement

The City and LCA agree to amend **Schedule 4 (Operating Standards)** to the Lease with respect to the Water Distribution Pipeline Replacement requirement as follows:

Schedule 4 (Operating Standards), Part A (Water System Operating Standards), Section 6.19. 2 (Evaluation and Replacement Requirements) is hereby amended to reduce the annual requirement for water distribution pipeline replacement to one (1) mile from at least two (2) miles of pipe beginning for the year 2021 and continuing for four years through the year 2024.

The City agrees to assist and coordinate with LCA to ensure cost-effectiveness of the projects through evaluation of the proximity of projects, similar types of projects, coordination with City programs and other prioritization protocols under the Pipeline Replacement Program.

LCA shall complete a minimum of the required one (1) mile of water main replacement in the calendar year 2021. For the remainder of the four-year period, LCA may combine the individual annual water main replacement projects so long as at least

four (4) miles of water main replacement will have been completed in the four-year period.

Every four (4) years, with the first being 2024 and the second 2028, representatives of the City and LCA will review leak detection history and repairs, main breaks with consideration for weather conditions, water audits as presented in the “Annual Consulting Engineer’s Report for the Allentown Water and Sewer Utility System Concession,” sinkhole history, and similar concerns which might affect or impact continuation or modification of the replacement mileage. As a result of this review, the City and LCA shall agree upon the requirement for water main replacement and leak detection quantities for the following four-year period. The annual mileage determination will never be less than one (1) mile per year or more than two (2) miles per year but may be set at increments of one quarter mile per year between those limits as may be agreed by the Parties. The annual required mileage of leak detection in Section A 6.10.2 will be adjusted proportionally to the annual mileage of the pipe replacement.

Should LCA fail to comply with the water main replacement requirements that are in effect during a given year within the four-year period and as agreed by the Parties, the requirements under Sections A.6.19 of the Operating Standards shall return to the initial conditions under the Lease Concession in the following Calendar year and this section of the Agreement will become null and void.

12. Sewer Collection System Improvements

The availability of sewer system capacity is of critical importance for the economic growth, vitality, and environmental protection goals of all municipalities whose sewage is treated at the City's Wastewater Treatment Plant. Within the City's sewer collection system, which is among the oldest and most extensive in the region, extraneous flows from inflow and infiltration ("I&I") must be addressed in order to meet these goals.

In 2018, the City detailed its plans to complete certain rehabilitation projects ("I&I Projects") as part of its response to the United States Environmental Agency Administrative Orders. This work is expected to be completed during calendar years 2020 through 2024 using the Administrative Order Fund as described in the Lease. During this time period a Flow Characterization Study ("FCS") will also be completed using flow metering and hydraulic modeling tools to better define the sewer rehabilitation and capacity expansion needs of the entire sewer collection system including the City and all municipalities whose sewage flows to the City's Wastewater Treatment Plant.

Following the City's completion of the I&I Projects and FCS, but no sooner than 2024, LCA will establish a Sewer Collection System Improvement Fund and will contribute \$650,000 per year to fund rehabilitation projects in the City's sewer collection system. Projects funded through the Sewer Collection System Improvement Fund will address areas identified via the FCS as having excess I&I. The City and LCA will jointly

review the results of the FCS to determine the projects and prioritization of work to be completed. In the event that the City and LCA disagree on these priorities, the City will make a final determination of the project scope and prioritization. Projects funded by the Sewer Collection System Improvement Fund may include additional sanitary sewer evaluation studies in addition to actual rehabilitation projects. In any calendar year, project costs which exceed that year's accumulated balance in the Sewer Collection System Improvement Fund will be treated as a Major Capital Improvement for purposes of cost recovery through a Capital Cost Recovery Charge.

Contributed money not spent in any calendar year will be retained in the Sewer Collection System Improvement Fund for use in subsequent years, and LCA will continue to contribute to the Sewer Collection System Improvement Fund annually. After all projects identified via the FCS have been completed, any funds remaining in the Sewer Collection System Improvement Fund will be returned to LCA's City Division project reserves and all subsequent sewer system rehabilitation projects will be completed in accordance with the terms of the Lease.

The Sewer Collection System Improvement Fund will be used exclusively for the restoration of existing sewers and may not be used for expansion of service or capacity projects.

Nothing in this agreement serves to supersede or modify any terms or conditions included in the Lease or Operating Standards regarding the sewer system operation or the rights, obligations and liabilities of the Parties.

13. Neither the City nor LCA may assign this Agreement without the express prior consent of the other party.
14. This Agreement shall be binding on the Parties' respective successors and assigns.
15. This Amendment, the Lease, the Stand-Alone Dispute Settlement Agreement, the Amendment to the Water Supply Agreement, and the Amendment to the CCRC MOU (herein above defined collectively as the "Integrated Agreements") constitute and contain the entire agreement between the Parties. The Parties intend that the Integrated Agreements be a complete and exclusive statement of the terms of their agreement. The Integrated Agreements supersede and replace all prior negotiations and proposals, whether written or verbal, between the Parties concerning the subject matter contained herein.
16. This Agreement shall not be changed, modified or amended except by agreement in writing signed by both Parties.

17. The Parties agree to be bound by this Agreement and agree to execute any and all documents necessary to implement its terms, as agreed, including, but not limited to, an Amended and Restated Allentown Water and Sewer Concession Lease Agreement.

18. The Parties acknowledge that the Integrated Agreements are contingent upon obtaining the consent of a majority of the holders of the Bonds, and agree to cooperate in securing such consent (whether through the submission of requests for consent from existing bondholders or through the issuance of refunding bonds by LCA to effectuate such consent). In the event LCA determines in its sole discretion to effectuate such bondholder consent through the issuance of refunding bonds, the City agrees to cooperate with LCA in the issuance of such bonds, and shall execute all instruments, certificates, agreements, and other documents necessary or appropriate in connection with the issuance of the refunding bonds; provided, however, that the City shall not be required to act as guarantor of such bonds or otherwise pledge its full faith, credit and taxing power in connection therewith. The Parties agree that the securing of such consent is a necessary prerequisite to the effectiveness of the Integrated Agreements and the failure to obtain such consent by September 30, 2020 shall result in the Integrated Agreements becoming null and void and of no effect; provided, however that LCA may extend such deadline by up to 60 days by providing notice of such extension to the City no later than September 18, 2020. The effectiveness of each distinct and separate agreement comprising the Integrated Agreements is contingent upon the effectiveness of all other agreements comprising the Integrated Agreements.

19. By this Agreement, the Mayor of the City of Allentown and the Chief Executive Officer of LCA are authorized to implement all administrative, financial and operational requirements of this Agreement, subject to existing administrative processes and delegated responsibilities.

20. This Agreement may be executed in counterparts, each of which when executed and delivered shall constitute a duplicate original, but both counterparts together shall constitute a single Agreement.

21. The terms and provisions of this Amendment to the Lease shall be effective on the date of the last signature hereto.

22. Except as expressly modified herein, the terms and provisions of the Lease shall remain in full force and effect.

IN WITNESS WHEREOF, the parties have executed this Amendment to the Lease or caused this Amendment to the Lease to be executed by their duly authorized representatives the day and year first above-written.

ATTEST:

THE CITY OF ALLENTOWN:

By: _____

Witness: _____

Name: Ray O'Connell

Name: _____

Title: Mayor of the City of Allentown

Title: _____

Date: _____

LEHIGH COUNTY AUTHORITY:

By: _____

Witness: _____

Name: Liesel Gross

Name: _____

Title: Chief Executive Officer

Title: _____

Date: _____

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AMENDMENT TO WATER SUPPLY AGREEMENT

Dated as of January 7, 2009

Between

CITY OF ALLENTOWN

AND

LEHIGH COUNTY AUTHORITY

THIS AMENDMENT to the Water Supply Agreement (hereinafter “Water Supply Agreement”) is made and entered into this ____ day of _____, 2020, by and between the CITY OF ALLENTOWN , a Home Rule City of the Third Class organized and existing under the laws of the Commonwealth of Pennsylvania (hereinafter referred to as “the City”) and the LEHIGH COUNTY AUTHORITY, a municipal authority organized and existing under the Municipality Authorities Act of 1945, as amended (Hereinafter referred to as “LCA”).

WITNESSETH:

WHEREAS, the City and LCA entered a certain Water Supply Agreement (the “Water Supply Agreement”), dated as of January 7, 2009 for (a) long-term supply of water from the City's water treatment plant, and (b) an interim supply of water from Schantz Spring; all for use by LCA's commercial, industrial, and residential customers in its Central Lehigh Division via certain facilities owned by LCA; and

WHEREAS, the City and LCA (hereinafter sometimes referred to as the “Parties”) entered into a certain Allentown Water and Sewer Utility System Concession and Lease Agreement (the “Lease ”), dated as of May 1, 2013, pursuant to which the City leased its Water Plant and Distribution System and Sewer Utility System (the “System”) to LCA, as Concessionaire, and granted LCA the right to operate the System in order to provide utility services in accordance with the provisions of the Lease; and

WHEREAS, the City and LCA entered into a certain Memorandum of Understanding with respect to Capital Cost Recovery Charges (hereinafter “CCRC” or “CCRCs”), dated July 1, 2015 (the “CCRC MOU”), because neither the Lease nor the Operating Standards associated therewith contained sufficient details on how to procedurally handle CCRCs under the Lease and the Parties wished to establish, in writing, responsibilities and procedures in regard to the usage, development and application of CCRCs; and

WHEREAS, the City and LCA entered into a certain Memorandum of Understanding with respect to Change of Law as defined in the Lease (hereinafter "Change of Law"), dated January 9, 2017 (the "Change of Law MOU"), which covers up-front costs, operational costs and project costs LCA's suburban customers will be responsible for either as Water Filtration operating costs or capital improvement to include Major Capital Improvements; and

WHEREAS, diverse and distinct disagreements and disputes arose between the City and LCA after the Lease was entered that are in various stages of resolution per the terms of Article 19 of the Lease, and which include those known by the Parties as the Fraudulent Inducement Claim, Monthly Billing Dispute, Roof Project Dispute, Employee Benefits Claim, Employee Sick Leave Dispute, and the Surcharge Dispute, and which include all other current disputes not specified above ("the Disputes"); and

WHEREAS, the Parties specifically intend to memorialize the terms of the settlement of the Disputes by entering into the following Agreements contemporaneously each of which shall be read and construed together integral parts of the comprehensive, global settlement between the Parties to terminate their respective claims in the Disputes (the "Integrated Agreements"):

- A Stand- Alone Dispute Settlement Agreement (for the Disputes not otherwise addressed in the Amendments to the Water Supply Agreement, the Lease and the CCRC MOU;
- Amendment to the Water Supply Agreement;
- Amendment to the Lease; and
- Amendment to the CCRC MOU.

NOW THEREFORE, the Parties hereto, in consideration of the mutual promises and covenants contained herein and intending to be legally bound hereby, mutually agree to amend the Water Supply Agreement as follows:

1. The forgoing recitals are hereby incorporated by reference herein as though more fully set forth at length.

2. The defined term, "O&M Cost" in Section 1 of the Water Supply Agreement shall be deleted in its entirety.

3. The defined term, "Adjusted Rate" in Section 1 of the Water Supply Agreement shall be deleted in its entirety and replaced with:

"Adjusted Rate" means the rate per 1,000 gallons as adjusted in accordance with the provisions of Sections 7(a) of this Agreement, based upon any increase in the: (a) Operating Cost Portion; and (b) the Capital Cost Recovery Portion.

4. The defined term, "Peripheral Cost" in Section 1 of the Water Supply Agreement shall be deleted in its entirety.

5. Section 1 of the Water Supply Agreement shall be amended by adding the following defined term:

"Lease" means the Allentown Water and Sewer Utility System Concession and Lease Agreement entered into between the City and LCA on May 1, 2013 and all subsequent amendments, revisions, and/or supplements thereto.

6. Section 4 (**Long-Term Water Supply**), Paragraph (b) (**Supply**), Subparagraph 2 of the Water Supply Agreement is hereby deleted in its entirety and replaced with the following:

The City is obligated to sell, and LCA is obligated to purchase, 7 million gallons of water per day ("MGD"). In the event that LCA's Central Lehigh Division ("Central Division") total annual water usage (the sum of the water produced by the Central Division's wells and water received from LCA's City Division) falls below 9.35 MGD, the parties' obligation as described above shall be modified to require the City to sell and LCA to purchase the volume of water equal to the Central Division's total annual water usage less 2.35 MGD. LCA's minimum purchase obligation in the event the Central Division's total annual water usage falls below 9.35 MGD shall be determined annually but shall not fall below 5 MGD. Should there be a repair or replacement required for the Water Line or Pump Station, LCA will advise the City and an adjustment shall be made in calculating the minimum purchase obligation. In no case shall LCA's daily water purchase exceed 1.5 times the then current minimum purchase obligation volume as set forth in this paragraph without City consent.

7. Section 4 (**Long-Term Water Supply**), Paragraph (c) (**Term of Long-Term Water Supply**) is hereby deleted in its entirety and replaced with the following:

Term of Long-Term Water Supply. The term of the Long Term Water Supply shall terminate on the date of termination pursuant to the terms of Section 2.1 of the Lease provided, however, in the event the term of the Lease is extended under Section 16.4 (n) of the Lease, as amended, the Long Term Water Supply shall renew automatically at the end of the term and any succeeding terms for a period of five years unless the City or LCA provides written notice of intent to terminate Long Term Water Supply, at least six months before the expiration of the term.

8. Sections 7(a), 7(b), 7(c) and 7(d) (**Payment of Rates**) of the Water Supply Agreement are hereby deleted in their entirety and replaced with the following and Section 7 (e) shall be designated as Section 7 (b):

7 (a) The Adjusted Rate paid for water purchased or obligated to be purchased under the terms of this Agreement will have two components: The Operating Cost Portion and the Capital Cost Recovery Portion as those terms are defined in this Section. The rates shall become effective as set forth herein.

(i) Operating Cost Portion: The Operating Cost Portion of the Adjusted Rate for water purchased (or obligated to be purchased) will be calculated in February each year and applied retroactively to January 1st of that year based on the prior calendar year's actual cost to operate and maintain the Filtration Plant, including Raw Water (as such term is defined in the Lease) intake facilities (hereinafter "Intakes"), and finished water storage. Only the pump facilities, piping with valves, measuring devices, and similar items directly integral to the Intakes, storage facilities, and Filtration Plant to the point of discharge shall be included. Distribution system costs shall not be included in the calculation of the Operating Cost Portion.

The costs included in the Operating Cost Portion calculation will include all costs currently captured in LCA's Filtration Plant operating budget plus annual capital costs that are not recoverable through the Capital Cost Recovery Portion, including those capital costs paid through operating revenues or reserves or annual debt service costs associated with projects that are not recoverable through the Capital Cost Recovery Portion. These capital costs will be those projects identified in LCA's five-year capital plan as falling in the categories of annual projects, studies, general improvements, and indenture report improvements. If LCA changes its budget or capital plan categories such that other categories are used to capture these costs, LCA will advise the City and provide an update of the Attachment noted below to illustrate the calculation of the Operating Cost Portion of the Adjusted Rate. The calculation will also include the total billable water volume from the prior year as reported to the City annually in October for other rate-making purposes (July 1 to June 30, hereinafter "Total Billable Water Volume"). An example of this rate calculation is included in an Attachment entitled "LCA-City WSA – Operating Cost Portion – 2020 Rate Example."

The Operating Cost Portion of the Adjusted Rate shall become effective on October 1, 2020. In the event that this Amendment shall not become effective by October 1, 2020 the provision of this paragraph 8 (i) shall be effective retroactive to October 1, 2020.

(ii) Capital Cost Recovery Portion: The Capital Cost Recovery Portion of the Adjusted Rate will be calculated as follows: LCA will pay a proportionate share of Major Capital Improvements and Changes of Law (as such terms are defined in the Lease) associated with water treatment, Intakes, and storage facilities using methodologies established for the development of the Capital Cost Recovery Charge and Changes of Law charges defined in and included in the Lease and applied to City rate payers. When calculating such charges for the applicable projects, not captured in operating costs (associated with water treatment, Intakes and finished water storage), LCA's annual use of City Division water will be included in the Total Billable Water Volume to calculate the rate applied to all users including LCA. However, LCA shall have the right to pre-pay these project costs or pay in a time period shorter than the Cost Recovery Period, as such term is defined in and specified in the Lease. In the event LCA exercises this right, the Capital Cost Recovery Portion of the Adjusted Rate will be reduced by the amount that LCA has pre-paid. LCA will advise the City of any pre-payment and will provide the then current/ updated adjusted costs and schedule of payments.”

The Capital Cost Portion of the Adjusted Rate shall become effective on January 1, 2021.

9. Except as modified herein, all terms and conditions of the Water Supply Agreement shall remain in full force and effect. Capitalized terms used herein but not defined herein shall have the meanings set forth in the Water Supply Agreement and the Lease.

10. Assignment

Neither the City nor LCA may assign this Agreement without the express prior consent of the other party.

11. Binding Agreement

This Agreement shall be binding of their respective successors and assigns.

12. Integration

The Stand- Alone Dispute Settlement Agreement, the Amendment to the Water Supply Agreement, the Amendment to the Lease and the Amendment to the CCRC MOU (herein above defined collectively as the “Integrated Agreements”) constitute and contain the entire agreement between the Parties. The Parties intent that the Integrated Agreements to be a complete and exclusive statement of the terms of their agreement. The Integrated

Agreements supersede and replace all prior negotiations and proposals, whether written or verbal, between the Parties concerning the subject matter contained herein.

13. Bondholder Consent Required

The Parties acknowledge that the Integrated Agreements are contingent upon obtaining the consent of a majority of the holders of the Bonds, and agree to cooperate in securing such consent (whether through the submission of requests for consent from existing bondholders or through the issuance of refunding bonds by LCA to effectuate such consent). In the event LCA determines in its sole discretion to effectuate such bondholder consent through the issuance of refunding bonds, the City agrees to cooperate with LCA in the issuance of such bonds, and shall execute all instruments, certificates, agreements, and other documents necessary or appropriate in connection with the issuance of the refunding bonds; provided, however, that the City shall not be required to act as guarantor of such bonds or otherwise pledge its full faith, credit and taxing power in connection therewith. The Parties agree that the securing of such consent is a necessary prerequisite to the effectiveness of the Integrated Agreements and the failure to obtain such consent by September 30, 2020 shall result in the Integrated Agreements becoming null and void and of no effect; provided, however that LCA may extend such deadline by up to 60 days by providing notice of such extension to the City no later than September 18, 2020. The effectiveness of each distinct and separate agreement comprising the Integrated Agreements is contingent upon the effectiveness of all other agreements comprising the Integrated Agreements.

14. Modification in Writing

This Agreement shall not be changed, modified or amended except by agreement in writing signed by both Parties pursuant to Section 21.e of the Water Supply Agreement.

15. Documents to Implement

The Parties agree to be bound by this Agreement and agree to execute any and all documents necessary to implement the terms, as agreed.

16. Authorized to Sign

By this Agreement, the Mayor of the City of Allentown and the Chief Executive Officer of LCA are authorized to implement all administrative, financial and operational requirements of this Agreement, subject to existing administrative processes, authorizations and delegated responsibilities.

17. Counterparts

This Agreement may be executed in counterparts, each of which when executed and delivered shall constitute a duplicate original, but both counterparts together shall constitute a single Agreement

18. Effective Date

The terms and provisions of this Amendment to the Water Supply Agreement shall be effective on the date of the last signature hereto.

IN WITNESS WHEREOF, the Parties have executed this Amendment to the Water Supply Agreement or caused this Amendment to the Water Supply Agreement to be executed by their duly authorized representatives the day and year first above-written.

ATTEST:

THE CITY OF ALLENTOWN:

By: _____ Witness: _____
Name: Ray O'Connell Name: _____
Title: Mayor of the City of Allentown Title: _____
Date: _____

LEHIGH COUNTY AUTHORITY:

By: _____ Witness: _____
Name: Liesel Gross Name: _____
Title: Chief Executive Officer Title: _____
Date: _____

AMENDMENT TO MEMORANDUM OF UNDERSTANDING

(Capital Cost Recovery Charges)

Dated July 1, 2015

Between

CITY OF ALLENTOWN

AND

LEHIGH COUNTY AUTHORITY

THIS AMENDMENT to the Memorandum of Understanding (*Capital Cost Recovery Charges*) dated July 1, 2015 (hereinafter, "CCRC MOU") is made and entered into this ____day of _____, 2020, by and between the CITY OF ALLENTOWN, a Home Rule City of the Third Class organized and existing under the laws of the Commonwealth of Pennsylvania (hereinafter referred to as "the City") and the LEHIGH COUNTY AUTHORITY, a municipal authority organized and existing under the Municipality Authorities Act of 1945, as amended (hereinafter referred to as "LCA").

WITNESSETH:

WHEREAS, the City and LCA entered a certain Water Supply Agreement (the "Water Supply Agreement"), dated as of January 7, 2009; and

WHEREAS, the City and LCA (hereinafter sometimes referred to as the "Parties") entered into a certain Allentown Water and Sewer Utility System Concession and Lease Agreement (the "Lease "), dated as of May 1, 2013, pursuant to which the City leased its Water Plant and Distribution System and Sewer Utility System (the "System") to LCA, as Concessionaire, and granted LCA the right to operate the System in order to provide utility services in accordance with the provisions of the Lease; and

WHEREAS, the City and LCA entered into a certain Memorandum of Understanding with respect to Capital Cost Recovery Charges as defined in the Lease (hereinafter "CCRC" or "CCRCs"), dated July 1, 2015 (the "CCRC MOU"), because neither the Lease nor the Operating Standards associated therewith contained sufficient details on how to procedurally handle CCRCs under the Lease and the Parties wished to establish, in writing, responsibilities and procedures in regard to the usage, development and application of CCRCs the Lease; and

WHEREAS, diverse and distinct disagreements and disputes arose between the City and LCA after the Lease was entered into that are in various stages of resolution per the terms of Article 19 of the Lease, and which include those known by the Parties as the Fraudulent Inducement Claim, Monthly Billing Dispute, Roof Project Dispute, Employee

Benefits Claim, Employee Sick Leave Dispute, and the Surcharge Dispute, and which include all other current disputes not specified above ("the Disputes"); and

WHEREAS, the Parties specifically intend to memorialize the terms of the settlement of the Disputes by entering into the following Agreements contemporaneously each of which shall be read and construed together integral parts of the comprehensive, global settlement between the Parties to terminate their respective claims in the Disputes (the "Integrated Agreements.")

- A Stand-Alone Dispute Settlement Agreement (for the Disputes not otherwise addressed in the Amendments to the Water Supply Agreement, the Lease, and the CCRC MOU);
- Amendment to the Water Supply Agreement;
- Amendment to the Lease; and
- Amendment to the CCRC MOU.

NOW THEREFORE, the parties hereto, in consideration of the mutual promises and covenants contained herein and intending to be legally bound hereby, mutually agree to amend the CCRC MOU as follows:

1. The forgoing recitals are hereby incorporated by reference herein as though more fully set forth at length.
2. City waives its right to withhold approval of any proposed Capital Cost Recovery Charge (CCRC) that includes for any Reporting Year during the Cost Recovery Period a CCRC that is greater than 200% of the CCRC for any other Reporting Year under Section 7.1(f) of the Concession Lease Agreement. No other provisions of the foregoing paragraphs are amended hereby. The waiver granted hereby is continuing and shall apply to each and every request for a proposed CCRC by LCA submitted after the date hereof. The City shall not revoke the waiver granted by this Section 2 for the term of the Lease.
3. The paragraph entitled "**Equity Funding**" on page 5 of the CCRC MOU is deleted in its entirety and replaced with the following:

Any CCRC calculated for a MCIP funded by LCA in whole or in part through the use of LCA's existing cash reserves will allow for a return on equity in the amount of 5.445107% on the use of those reserves.

Any other reference to return on equity, "equity funding rate of return," and/or "equity rate of return" in the CCRC MOU shall be interpreted consistent with the foregoing amendment.

4. Page 7 of the CCRC MOU is amended by adding the following procedural instructions for addressing Major Capital Improvement Project funding scenarios directly following the heading "**Capital Cost Recovery Charge (CCRC) Timeline**":

CCRC Implementation Timing:

In the event that LCA uses solely debt (e.g. loans, bonds) to fund any MCIP, the CCRC incorporating such MCIP will be implemented on January 1st of the calendar year in which the debt payments are due, so long as this information is available and submitted to the City and the Substantially Complete Design review and approval (per Lease §§ 4, 5(b)(iv)) is completed prior to October 1st of the prior year.

In the event that LCA uses solely equity (e.g. cash, securities) to fund a MCIP, the CCRC incorporating such MCIP will be implemented on January 1st of the calendar year so long as the Substantially Complete Design approval (per Lease §4,5(b)(iv)) is completed prior to October 1st of the previous year. When a CCRC is implemented in accordance with this provision, the CCRC will be adjusted based on final actual project costs calculated after project completion, and a one-time CCRC adjustment shall be made to reflect the variance between the cost estimated at the time of Substantially Complete Design and the final project cost.

In the event that LCA uses a combination of debt and equity to fund a MCIP, LCA shall provide a CCRC proposal (Lease §4.5(c)) to include the timing of the incorporation of the CCRC and the Cost Recovery Period to be applied, for the City's consideration and in accordance with the terms of this MOU. At no time will a CCRC be implemented for a project that will provide annual cost recovery to LCA that is less than the debt service payment due for debt that is issued to fund any portion of the project.

These changes will begin in 2021 and apply to new MCIP for which no CCRC is currently in place. LCA and the City agree that previously approved CCRCs will remain in force as previously approved and will not be subject to recalculation or adjustment in accordance with this agreement.

5. The CCRC MOU is amended to delete the terms "Placed in Service Date," "PISD," and "Carrying Charge" in their entirety from the following paragraphs and pages of the CCRC MOU:

A. "Placed in Service Date" and "PISD":

	¶/Page
Substantially Complete Design CCRC	2 of 18
Finalized CCRC	2 of 18
Determination of Placed in Service Date (PSID)	3 of 18
Carrying Charges	6 of 18
Inclusion of CCRCs on Water and Sewer Bills	6 of 18

Capital Cost Recovery Charge (CCRC) Timeline	7 of 18
Part S-1a- Sewer Project Annual Debt Service Payment (SPADSP)	9 of 18
SCCRC Calculation Example	11 of 18
Part W-1a- Carrying Charge (CC)	15 of 18
WCCRC Calculation Example	16 of 18
Multi- Project/Yar Annual Debt Service Payment Example	18 of 18

B. "Carrying Charge"

	¶/Page
Substantially Complete Design CCRC	2 of 18
Sewer Signatory Adjustments to CCRC for MCIP in Sewer System	4 of 18
Carrying Charges	6 of 18
Capital Cost Recovery Charge (CCRC) Timeline and Example	7 of 18
Part S-1a- Sewer Project Annual Debt Service Payment (SPADSP)	9 of 18
Carrying Charge (CC)	12 of 18
Part W-1- Water Project Annual Debt Service Payment (WPADSP)	14 of 18
Part W-1a- Carrying Charge (CC)	15 of 18
Carrying Charge (CC)	16 of 18
Water Project Annual Debt Service Payment (WPADSP)	17 of 18

The Parties acknowledge that the deletion of these terms will create internal inconsistencies throughout the CCRC MOU, and agree to execute an Amended and Restated Memorandum of Understanding at the earliest convenient opportunity.

6. Assignment.

Neither the City nor LCA may assign this Agreement without the express prior consent of the other party.

7. Binding Agreement

This Agreement shall be binding on the Parties, their respective successors and assigns.

8. Integration

The Stand-Alone Dispute Settlement Agreement, the Amendment to the Water Supply Agreement, the Amendment to the Lease, and the Amendment to the CCRC MOU (herein above defined collectively as the "Integrated Agreements") constitute and contain the entire agreement between the Parties. The Parties intend the Integrated Agreements to be the complete and exclusive statement of the terms of their agreement. The Integrated Agreements supersede and replace all prior negotiations and proposals, whether written or verbal, between the Parties concerning the subject matter contained herein.

9. Bondholder Consent Required

The Parties acknowledge that the Integrated Agreements are contingent upon obtaining the consent of a majority of the holders of the Bonds, and agree to cooperate in securing such consent (whether through the submission of requests for consent from existing bondholders or through the issuance of refunding bonds by LCA to effectuate such consent). In the event LCA determines in its sole discretion to effectuate such bondholder consent through the issuance of refunding bonds, the City agrees to cooperate with LCA in the issuance of such bonds, and shall execute all instruments, certificates, agreements, and other documents necessary or appropriate in connection with the issuance of the refunding bonds; provided, however, that the City shall not be required to act as guarantor of such bonds or otherwise pledge its full faith, credit and taxing power in connection therewith. The Parties agree that the securing of such consent is a necessary prerequisite to the effectiveness of the Integrated Agreements and the failure to obtain such consent by September 30, 2020 shall result in the Integrated Agreements becoming null and void and of no effect; provided, however that LCA may extend such deadline by up to 60 days by providing notice of such extension to the City no later than September 18, 2020. The effectiveness of each distinct and separate agreement comprising the Integrated Agreements is contingent upon the effectiveness of all other agreements comprising the Integrated Agreements.

10. Modification in Writing

This Agreement shall not be changed, modified or amended except by agreement in writing signed by both Parties.

11. Documents to Implement

The Parties agree to be bound by this Agreement and agree to execute any and all documents necessary to implement the terms, as agreed.

12. Authorized to Sign

By this Agreement, the Mayor of the City of Allentown and the Chief Executive Officer of LCA are authorized to implement all administrative, financial and operational requirements of this Agreement, subject to existing administrative processes, authorizations and delegated responsibilities.

13. Counterparts

This Agreement may be executed in counterparts, each of which when executed and delivered shall constitute a duplicate original, but both counterparts together shall constitute a single Agreement.

14. Effective Date

The terms and provisions of this Agreement shall be effective on the date of the last signature hereto.

15. Terms Not Modified Remain in Effect

Except as expressly modified by the Integrated Agreements, the terms and provisions of the CCRC MOU shall remain in full force and effect.

IN WITNESS WHEREOF, the Parties have executed this Amendment to the CCRC MOU or caused this Amendment to the CCRC MOU to be executed by their duly authorized representatives the day and year first above-written.

ATTEST:

THE CITY OF ALLENTOWN:

By: _____ Witness: _____
Name: Ray O'Connell Name: _____
Title: Mayor of the City of Allentown Title: _____
Date: _____

LEHIGH COUNTY AUTHORITY:

By: _____ Witness: _____
Name: Liesel Gross Name: _____
Title: Chief Executive Officer Title: _____
Date: _____

STAND ALONE DISPUTE SETTLEMENT AGREEMENT

Between

CITY OF ALLENTOWN

AND

LEHIGH COUNTY AUTHORITY

THIS SETTLEMENT AGREEMENT AND MUTUAL RELEASE (“Agreement”), dated the _____ day of _____ 2020, is made and entered into by and between City of Allentown, a Pennsylvania city of the third class duly organized and existing under the laws of Pennsylvania and the City of Allentown Home Rule Charter (“City”), and the Lehigh County Authority, a Pennsylvania municipal authority organized and existing under the Pennsylvania Municipality Authorities Act (“LCA” or “Authority”), (each individually a “Party”, and collectively, the “Parties”).

WITNESSETH:

WHEREAS, the Parties entered into a certain Water Supply Agreement (the “Water Supply Agreement”), dated as of January 7, 2009; and

WHEREAS, the Parties entered into the Allentown Water and Sewer Utility System Concession and Lease Agreement dated as of May 1, 2013, as amended and supplemented from time to time (collectively, the “Lease”) pursuant to which the City leased its Water Plant and Distribution System and Sewer Utility System (the “System”) to LCA, as Concessionaire, and granted LCA the right to operate the System in order to provide utility services in accordance with the provisions of the Lease; and

WHEREAS, the Parties entered into the Capital Cost Recovery Charges Memorandum of Understanding, dated July 1, 2015 (the CCRC MOU) with respect to Capital Cost Recovery Charges as defined in the Lease (hereinafter “CCRC” or “CCRCs”), , because neither the Lease and the Operating Standards associated incorporated therein contained details on how to procedurally handle CCRCs and the Parties wished to establish, in writing, responsibilities and procedures in regard to the usage, development and application of CCRCs; and

WHEREAS, the Parties wish to ensure that the exceptional quality of drinking water and treated sewage effluent are continuously and safely maintained; and,

WHEREAS, the System serves residents and businesses of the City and surrounding communities and is vital to the stability, growth, and development of the entire service area; and,

WHEREAS, the Parties wish to ensure funding is available for all necessary capital improvements to the System for the full term of the Lease; and,

WHEREAS, the Parties want to ensure that all aspects associated with the operation and maintenance of water and sewer services continue to fully comply with requirements of the Lease, the Operating Standards attached thereto as Schedule 4, and all regulatory requirements; and,

WHEREAS, diverse and distinct disagreements and disputes arose between the City and LCA after the Lease was entered that are in various stages of resolution per the terms of Article 19 of the Lease, and which include those known by the Parties as the Fraudulent Inducement Claim, Monthly Billing Dispute, Roof Project Dispute, Employee Benefits Claim, Employee Sick Leave Dispute, and the Surcharge Dispute, and which include all other current disputes not specified above (the “Disputes”); and,

WHEREAS the Parties, after significant negotiations, and wishing to avoid further litigation with respect to the Disputes, have agreed to settlement terms and conditions for the above-referenced Disputes; and,

WHEREAS, the Parties specifically intend to memorialize the terms of the settlement of the Disputes by entering into the following Agreements contemporaneously each of which shall be read and construed together as integral parts of the comprehensive, global settlement between the Parties to terminate their respective claims in the Disputes (the “Integrated Agreements.”)

- Stand-Alone Dispute Settlement Agreement (for the Disputes those not otherwise addressed in the Amendments to the Water Supply Agreement, the Lease and the CCRC MOU);
- Amendment to the Water Supply Agreement;
- Amendment to the Lease, the terms of which are intended to be incorporated into an Amended and Restated Lease Agreement but will not be subject to further negotiation by the Parties; and
- Amendment to the CCRC MOU.

NOW THEREFORE, the parties hereto, in consideration of the mutual promises and covenants contained herein and intending to be legally bound hereby, mutually agree as follows:

1. Incorporation of Recitals

The foregoing recitals are incorporated herein and by this reference made a material part of this Agreement.

2. Conditional Nature of this Agreement

This Agreement is intended to memorialize the Parties' pending negotiations regarding the Disputes between the Parties, including those related to the Lease. Because this Agreement, by its terms, proposes amendments to numerous provisions of the Lease, any effect or enforceability of this Agreement is conditional on (i) the execution and delivery by the Parties of an amendment to the Lease (the "Lease Amendment") which, by its terms, is in accord with this Agreement; (ii) the execution and delivery by the Parties of an amendment (the "WSA Amendment") to that Water Supply Agreement dated as of January 7, 2009 (the "Water Supply Agreement"), between the City and LCA; (iii) the execution and delivery by LCA of an amending supplement (the "Supplemental Indenture") to that Trust Indenture dated as of August 1, 2013 (as heretofore amended and supplemented, the "Existing Indenture," and together with the Supplemental Indenture, the "Indenture"), from LCA to Manufacturers and Traders Trust Company, as trustee, pursuant to which the holders of a majority in aggregate principal amount of the Bonds (including any Bonds that may be issued pursuant to such Supplemental Indenture) outstanding under the Indenture consent to the changes to the Lease contemplated hereby and embodied in the Lease Amendment; and (iv) any other amendments, supplements, agreements, instruments, certificates and other documents as may be necessary and appropriate to effectuate the terms of this Agreement.

Accordingly, the Parties enter into this Agreement on a conditional basis. In the event that the conditions above are not satisfied this Agreement shall be deemed null and void ab initio in its entirety and shall be of no force or effect whatsoever and shall be considered a joint statement by the Parties during compromise negotiations about their Disputes, and shall not be referred to or utilized for any purpose whatsoever. Provided, however, that should the conditions above not be satisfied due to a failure to obtain the necessary consent from the holders of a majority in aggregate principal amount of the Bonds outstanding under the Indenture, the Parties agree to continue to negotiate in good faith with regard to the terms of this Agreement or their other agreements in order to secure such consent.

3. Release from Liability, Waiver of Claims, and Withdrawal of the Disputes

Upon satisfaction of the conditions set forth in Section 2 above, and elsewhere in this Agreement, the Parties release one another from liability and thereby waive any right to all issues and claims included in and a part of the Disputes. Upon execution of the Integrated Agreements, the Disputes will be withdrawn by the Parties in their entirety unless otherwise specifically addressed in this Agreement. This Agreement shall be considered as having fully satisfied all Disputes and all claims in the Disputes, and by executing the Integrated Agreements, both Parties intend to fully release one another from all Disputes and all claims in the Disputes. Neither Party shall initiate future disputes or claims related to the matters described in the Disputes.

4. Claims for Employee Health Benefits

To ensure employee benefits are provided with no disruption, LCA and the City agree to the following:

- a.) The Parties will exchange confidential memoranda detailing specific employee information that is pertinent to this term of the Agreement to provide additional documentation for future administration of benefits. LCA's Human Resources Manager and Chief Executive Officer are designated as officials responsible and authorized to complete these administrative memoranda on LCA's behalf. The City's Director of Human Resources and Managing Director are designated as officials responsible and authorized to complete these administrative memoranda on the City's behalf.
- b.) LCA will not be liable for any retiree health care costs the City incurred prior to 2021 related to those employees who officially retired from the City rather than porting and taking their pension benefits to LCA.
- c.) Independent City and LCA calculations have been made and the Parties agree that an acceptable estimate of the valuation of future costs for the remaining liability for retiree health care for those employees who officially retired from the City rather than porting their retirement benefits to LCA is \$2,444,948. This figure excludes any employees who, as of the date of this Agreement, have left LCA employment prior to becoming eligible to retire from LCA, which is an eligibility requirement for benefits.
- d.) Both Parties recognize that the foregoing calculations were based on estimated figures and assumptions regarding employee utilization of City benefits through age 65 and estimated future premium increases. The Parties further understand that these assumptions may not be reflected in actual future costs and agree the final figure of \$2,444,948 will not be contested in the future.
- e.) City and LCA agree to share the cost of this estimated future liability. To achieve this cost sharing, LCA will pay to the City a sum of \$306,000 annually in calendar years 2021 through 2024 for a total payment of \$1,224,000. This payment will be made through equal payments of \$153,000 that will be added to each semi-annual component of the Annual City Payment LCA makes under the Lease to the City for these years. This cost will not be escalated by inflation.
- f.) This agreement is considered final and all other employees who transferred to LCA through the Lease transition who did not retire from the City, but who ported their retirement benefit from the City to LCA, shall not be eligible for retiree health benefits from the City. LCA's retiree health care offered to these employees will follow the

terms of any then-current LCA collective bargaining agreements and/or LCA employee policies in effect at the time of the employee's retirement.

5. Unreimbursed Sick Leave

LCA assumes 100% of the liability for the 55,189 hours of accumulated sick leave benefit that was held by Union employees and which transferred to LCA on the Closing Date of the Lease.

6. Roof Replacement Project Reimbursement

LCA will begin billing for the annual CCRC of the Roof Replacement Project in January 2021. The calculation of the CCRC for the Roof Replacement Project was previously reviewed, but the CCRC has not been applied due to the outstanding Dispute which is hereby resolved. The agreed upon amount of the annual CCRC for the Roof Replacement Project is \$78,807, which LCA will collect as a CCRC for a 30-year Capital Recovery Period beginning in the calendar year 2021 and ending in 2050.

7. Waiver of Approval of CCRC

City waives its right to withhold approval of any proposed Capital Cost Recovery Charge (CCRC) that includes for any Reporting Year during the Cost Recovery Period a CCRC that is greater than 200% of the CCRC for any other Reporting Year under Section 7.1(f) of the Concession Lease Agreement. The waiver granted hereby is continuing and shall apply to each and every request for a proposed CCRC by LCA submitted after the date of this Agreement. The City shall not revoke the waiver granted by this Section 7 for the term of the Lease.

8. Assignment

Neither the City nor LCA may assign this Agreement without the express prior consent of the other party.

9. Binding Agreement

This Agreement shall be binding of their respective successors and assigns.

10. No Admission of Liability

Nothing contained herein shall be construed as an admission by the Parties of any liability of any kind, all such liability being expressly denied.

11. Confidentiality; Right to Know Law

The Parties acknowledge that this Agreement is subject to the Pennsylvania Right to Know Law, 65 P.S. §67.101 et seq. (the “RTKL”). The Parties agree to cooperate in responding to any request under the RTKL that is received by either Party for records or information related to this Agreement. Except as required by the RTKL or other applicable law, the Parties agree that they will not directly or indirectly disclose, publish, make available to, or use for their own benefit or the benefit of any person or entity for any reason or purpose whatsoever, any “Confidential Information” of the City or LCA. For purposes of this Agreement, “Confidential Information” means and includes information, proposals, drafts and other details shared by the Parties during the negotiation of the terms of this Agreement. Confidential Information does not include information that is publicly known other than by any means in violation of this Agreement or any other duty owed to the Parties.

12. Non-Disparagement

The Parties agree that, unless required to do so by legal process, they will not make any disparaging statements or representations related to the matters described in the Disputes, either directly or indirectly, whether orally or in writing, by word or gesture, to any person whatsoever, about the other Party or his/her/its affiliates, directors, officers, employees, attorneys, agents, or representatives. For purposes of this paragraph, a disparaging statement or representation is any communication which, if publicized to another, would cause or tend to cause the recipient of the communication to question the business condition, integrity, competence, or good character of the Party about whom the communication is made.

13. Integration

The Stand- Alone Dispute Settlement Agreement, the Amendment to the Water Supply Agreement, the Amendment to the Lease and the Amendment to the CCRC MOU (herein above defined collectively as the “Integrated Agreements”) constitute and contain the entire agreement between the Parties. The Parties intend the Integrated Agreements to be a complete and exclusive statement of the terms of their agreement. The Integrated Agreements supersede and replace all prior negotiations and proposals, whether written or verbal, between the Parties concerning the subject matter contained herein.

14. Bondholder Consent Required

The Parties acknowledge that the Integrated Agreements are contingent upon obtaining the consent of a majority of the holders of the Bonds, and agree to cooperate in securing such consent (whether through the submission of requests for consent from existing bondholders or through the issuance of refunding bonds by LCA to effectuate such consent). In the event LCA determines in its sole discretion to effectuate such bondholder consent through the issuance of refunding bonds, the City agrees to cooperate with LCA in

the issuance of such bonds, and shall execute all instruments, certificates, agreements, and other documents necessary or appropriate in connection with the issuance of the refunding bonds; provided, however, that the City shall not be required to act as guarantor of such bonds or otherwise pledge its full faith, credit and taxing power in connection therewith. The City shall be reimbursed for any direct cost the City incurs for cooperating it incurs. The Parties agree that the securing of such consent is a necessary prerequisite to the effectiveness of the Integrated Agreements and the failure to obtain such consent by September 30, 2020 shall result in the Integrated Agreements becoming null and void and of no effect; provided, however that LCA may extend such deadline by up to 60 days by providing notice of such extension to the City no later than September 18, 2020. The effectiveness of each distinct and separate agreement comprising the Integrated Agreements is contingent upon the effectiveness of all other agreements comprising the Integrated Agreements.

15. Ratification

Except as specifically amended in the Integrated Agreements all terms and conditions of the Lease, the Operating Standards, the Water Supply Agreement, and any other agreements between the Parties shall remain in full force and effect, are hereby ratified and confirmed, and shall govern the terms of this Agreement.

16. Modification in Writing

This Agreement shall not be changed, modified or amended except by agreement in writing signed by both Parties.

17. Documents to Implement

The Parties agree to be bound by this Agreement and agree to execute any and all documents necessary to implement the terms, as agreed.

18. Headings and Interpretation

The Parties acknowledge that the headings provided in this Agreement are provided solely for the convenience of the reader, in order to assist the Parties in reading and understanding the Agreement. The headings provided are not intended to, and shall not be construed as, affecting the interpretation of the terms of this Agreement. This Agreement shall be interpreted and enforced according to its plain and ordinary meaning. Capitalized terms used but not defined herein have such meanings given them in the Lease. The Parties have been represented by counsel and this Agreement shall not be construed against any party on the basis of authorship.

19. Severability

In the event that any provision of this Agreement shall be held to be void, voidable, or unenforceable, the remaining portions hereof shall remain in full force and effect.

20. Attorneys' Fees and Costs

Each Party hereto shall bear its own attorneys' fees and costs in relation to this Agreement and any actions arising out of or relating to this Agreement, except as otherwise set forth in this Agreement.

21. Assignment and Authority

The Parties further represent and warrant to each other that no claims being released by this Agreement have been assigned to any third party, that the Parties have the power and authority to release the claims as provided herein, and that the person or parties executing this Agreement have power and authority to do so.

22. Review

Each of the Parties represents and warrants that it has had the opportunity to fully review the provisions of this Agreement with their respective counsel. This Agreement shall not be construed against the drafter of this Agreement but shall be interpreted as if jointly drafted by each and every Party. Each Party is signing and entering into this Agreement of its own free will to obtain the benefits of this Agreement.

23. Governing Law

This Agreement shall be construed in accordance with and be governed by the laws of the Commonwealth of Pennsylvania, County of Lehigh.

24. Authority to Sign

By this Agreement, the Mayor of the City of Allentown and the Chief Executive Officer of LCA are authorized to implement all administrative, financial and operational requirements of this Agreement, subject to existing administrative processes, authorizations and delegated responsibilities.

25. Counterparts

This Agreement may be executed in counterparts, each of which when executed and delivered shall constitute a duplicate original, but both counterparts together shall constitute a single Agreement

26. Effective Date

The terms and provisions of this Stand- Alone Dispute Settlement Agreement shall be effective on the date of the last signature hereto.

IN WITNESS THEREOF, the Parties **INTENDING TO BE LEGALLY BOUND** will execute all necessary documents to implement the terms as agreed. By this agreement, the Mayor of Allentown and the LCA Chief Executive Officer shall be authorized to implement all administrative, financial and operational requirements of this agreement, subject to existing administrative processes and delegated responsibilities. In addition, the Mayor of Allentown and the LCA Chief Executive Officer shall be authorized to execute a Lease Amendment, WSA Amendment, and any other documents that may be required to be amended to reflect the terms of this Agreement and take such actions upon which the effect and enforcement of this Agreement are conditional.

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Signatures Appear on the Next Page

ATTEST:

THE CITY OF ALLENTOWN:

By: _____

Witness: _____

Name: Ray O'Connell

Name: _____

Title: Mayor of the City of Allentown

Title: _____

Date: _____

LEHIGH COUNTY AUTHORITY:

By: _____

Witness: _____

Name: Liesel Gross

Name: _____

Title: Chief Executive Officer

Title: _____

Date: _____

MEMORANDUM

Date: July 13, 2020

To: Lehigh County Authority Board of Directors

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

Subject: Suburban Division – Lynn Township Sanitary Sewer Manhole Rehabilitation – Construction Phase

MOTIONS / APPROVALS REQUESTED:

No.	Item	Amount
1	Capital Project Authorization – Construction Phase	\$238,344
2	Contract Award (Construction): Standard Pipe Services, LLC	\$207,600
3	Professional Services Authorization: Keystone Consulting Engineers	\$13,244

BACKGROUND

This project is part of the Lynn Township Sanitary Sewer System Corrective Action Plan Amendment (“CAP”), which was submitted to DEP in September 2019. The CAP Amendment, which commits LCA to eliminating hydraulic overloads and bypasses at the Lynn Township Wastewater Treatment Plant, includes an updated sewer system condition assessment and an implementation schedule for corrective measures to mitigate wet weather I/I flows. Updated CCTV work and visual inspection of the entire system was performed in 2019, and the manhole inspection data was used to scope this capital repair project. The manhole inspection work revealed numerous deficiencies, including unsealed pipe penetrations, active joint and chimney leaks, broken frames and covers, broken risers, offset frames, recessed tops, missing gaskets, missing inflow dishes, and interior concrete deterioration.

PROJECT OVERVIEW

This project is the first large comprehensive sanitary sewage collection system rehabilitation project for the Lynn Township system since the system was acquired by LCA in 2012. The manhole rehabilitation work includes interior pipe penetration sealing and other interior concrete work, injection grouting of cracks and leaking joints, chimney lining, based section lining, full depth lining, grade adjustments, replacement of frames and covers, replacement of inflow dishes, exterior treatment, and bituminous sealing around the covers within roadways. Approximately 185 manholes are in the scope of work. The contractor will be responsible for temporary measures, including bypass pumping, in order to minimize sanitary sewer service disruption. Roadway restoration is included where required.

FUNDING

The Project will be funded by the LCA Suburban Division

BUDGET AMENDMENT

Not required

PROJECT STATUS

The project was designed by Keystone Consulting Engineers in early 2020. Board approval for construction phase is requested.

THIS APPROVAL – CONSTRUCTION PHASE

BIDDING SUMMARY

This project consists of one contract. The project was advertised for bid via PennBid in early June 2020 and bids were opened on June 26, 2020. Bids results are follows:

General Construction	
Bidder	Bid Amount
Standard Pipe Services, LLC	\$207,600
PIM Corporation	\$271,610
Mobile Dredging & Video Pipe, Inc.	\$640,225

Standard Pipe Services (SPS), based in Newark DE, has performed several projects for LCA related to different phases of WLI pipe inspection and rehabilitation efforts, and also completed CCTV inspection work for the Lynn Township wastewater collection system. SPS was recently awarded two LCA projects – the sewer main internal lining project in the City of Allentown and the manhole rehabilitation project in the Western Lehigh Interceptor. The contractor is well qualified to perform the scope of work and the bid documents are complete. Capital Works recommends award of the Lynn Township Manhole Rehabilitation Project to SPS.

PROFESSIONAL SERVICES

The design engineer, Keystone Consulting Engineers, will provide the following construction phase services:

- Attend pre-construction conference
- Provide on-site construction management, including scheduling review
- Provide daily construction inspection services (full time or part time depending on phase of work)
- Verify conformance with the specifications
- Prepare daily inspection reports
- Verify daily job material installation quantities
- Document installation (post construction photos)
- Attend progress meetings as required
- Prepare and verify punchlist completion

PROJECT SCHEDULE

Based on contract award following the July 13, 2020 board meeting, it is anticipated that the project will be completed by the end of the year.

FUTURE AUTHORIZATIONS

none

CAPITAL PROJECT AUTHORIZATION

PROJECT NO.:	SD-S-26	BUDGET FUND:	Suburban Div\Wastewater\Capital
PROJECT TITLE:	Suburban Division – Lynn Township Manhole Rehabilitation Project	PROJECT TYPE:	
THIS AUTHORIZATION:	\$238,344	<input checked="" type="checkbox"/>	Construction
TO DATE (W/ ABOVE)	\$252,644	<input type="checkbox"/>	Engineering Study
		<input type="checkbox"/>	Equipment Purchase
		<input type="checkbox"/>	Amendment

DESCRIPTION AND BENEFITS:

Lynn Township Manhole Rehabilitation Project:

This project is part of the continuing effort to reduce inflow and infiltration in the Lynn Township collection system as outlined in the Corrective Action Plan Amendment and involves leak repairs at manholes identified as deficient in a system-wide condition assessment. The rehabilitation work proposed for the approximate 185 manholes in this project includes the following:

- interior concrete work
- injection grouting
- chimney lining
- based section lining
- full depth lining
- grade adjustments
- replacement of frames and covers
- replacement of inflow dishes
- exterior treatment
- bituminous sealing around manhole frames within roadways

The work to be performed in this project should have a positive impact on reducing infiltration and inflow leakage at manholes in the Lynn Township collection system.

Previous Authorizations	
Design Phase – Keystone Consulting Engineers	\$14,300

REQUESTED THIS AUTHORIZATION	
Construction Phase	
Construction Contract – Standard Pipe Services, LLC	\$207,600
Construction phase Services – Keystone Consulting Engineers	\$13,244
Staff	\$7,500
Contingency	\$10,000
Total This Authorization	\$238,344

REVIEW AND APPROVALS:

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



Lehigh County Authority

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

PROFESSIONAL SERVICES AUTHORIZATION

Professional: KEYSTONE CONSULTING
ENGINEERS
5012 Medical Center Circle,
Allentown, PA 18106

Date: July 13, 2020

Requested By: Jason Peters

Approvals
Department Head: _____
Chief Executive Officer: _____

Suburban Division – Lynn Township manhole rehabilitation project

Previous Authorizations- Design Phase: \$14,300

This Authorization- Construction Phase: \$13,244

Keystone Consulting Engineers will provide but are not limited to the following construction related services:

- Attend pre-construction conference
- Provide on-site construction management, including scheduling review
- Provide daily construction inspection services (full time or part time depending on phase of work)
- Verify conformance with the specifications
- Prepare daily inspection reports
- Verify daily job material installation quantities
- Document installation (post construction photos)
- Attend progress meetings as required
- Prepare and verify punchlist completion

Cost Estimate (includes prior authorization; not to be exceeded without further authorization):
\$27,544

Time Table and Completion Deadline: As required to meet various critical deadlines as set forth in the proposal.

(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)

CERTIFICATES OF DEPOSIT						
30-Jun-20						
Fund	Bank	Location	Gross Amount	Date of Purchase	Date Due	Net Rate %
Cons Wtr (2)	Florida Capital Bank	Jacksonville, FL	249,000.00	5/15/2020	5/1/2022	0.500
WW Capac	Westfield Bank	Westfield, MA	249,000.00	5/15/2020	11/15/2021	0.350
LLRI CR	American National Bank - Fox Citi	Appleton, WI	245,000.00	5/20/2020	5/20/2022	0.400
Cons Wtr (2)	Quantum Naational Bank	Suwanee, GA	248,000.00	5/21/2020	5/23/2022	0.350
Cons Wtr (2)	Security State Bank	Scott City, KS	248,000.00	5/22/2020	5/23/2022	0.350
LLRI CR	Preferred Bank	Los Angeles, CA	245,000.00	5/22/2020	3/22/2022	0.350
Cons Wtr (2)	US Treasury Bills		244,682.38	5/22/2020	5/20/2021	-
Cons Wtr (2)	Maine Community Bank	Biddeford, ME	245,000.00	6/5/2020	6/6/2022	0.300

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

2. Developments

Water system construction is occurring in the following developments:
 5374/5392 Hamilton Blvd., 1 commercial lot, 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
 Mill Creek Hotel, 1 commercial lot with 205 room hotel & restaurant, UMT
 Ridings at Parkland, 53 residential units (sfd), NWT-NEW
 Schaefer Run Commons, Phase 1, 61 residential units (sfd), UMT

Water system plans are being reviewed for the following developments:
 749 Route 100, 1 industrial lot with warehouse, UMT
 1047 Cetronia Road, 8 unit apartment building, UMT
 1224 Weilers Road Townhouses, 144 townhouse units (sfa), UMT
 5329-5347-5357 Hamilton Blvd., 1 commercial lot, LMT
 5354 Hamilton Blvd., 1 commercial lot, LMT
 5420 Crackersport Road, 1 commercial lot, UMT
 8323/8449 Congdon Hill Drive, 2 industrial lots with warehouses, LMT
 ATAS International, 1 industrial lot, UMT

Cedarbrook Road Industrial Park, 2 industrial lots, LMT
Estates at Maple Ridge, 30 residential units (sfd), UMiIT
Jaindl Commercial Park North, 1 commercial lot, LMT
Laurel Field, Phase 5, 25 townhouses, UMT
Madison Village at Penn's View, 66 manufactured homes, 1 lot, water and sewer, LynnT
Mountain View Estates, 27 residential units (sfd), LMT
Ridings at Parkland – Phase 2, 38 residential units (sfd), NWT
Schoeneck Road, Lot 1, 1 lot warehouse, LMT
Shepherds Corner, 1 commercial lot, LMT
Towneplace Suites by Marriott, 91-room hotel, UMT

Sewage Planning Modules Reviewed in Prior Month:
None.

WATERACTION ITEM

DISCUSSION ITEMS

INFORMATION ITEMS

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

As part of the Pennsylvania Rapid Bridge Replacement Program, the replacement of the Cedar Creek Bridge on Hamilton Street has required the relocation of approximately 500 linear feet of water main. The design phase was approved at the December 2016 Board meeting and the construction phase at the January 2018 meeting. As of February 22, 2018, the contractor completed a majority of the relocation work for LCA's facilities; however, they were pulled off the site due to construction conflicts. As of March 22, 2019 the original LCA water line relocation scope of work was completed, however an additional relocation of a LCA sanitary sewer line was added to the original scope and agreement as of April 15, 2019 with an anticipated completion of April 26, 2019. LCA anticipates submitting all final paper work to the state for reimbursement in the very near future when the project has reached 100% completion. As of November 27, 2019 the project is still under construction due to delays caused by environmental timelines to preserve the high quality clear water fishery. It is anticipated that this work will be reimbursed 100% by the state and that the construction related activities. As of February 2020, the LCA utility relocation portion of this project is 100% complete; total project is approximately 75% complete. **(No Change)**

2. Allentown Division – Water Main Replacement Program Cycle 5

The project is for the replacement of 2-miles of aged and/or failing cast iron water main in multiple locations throughout the City, in accordance with the lease requirement, and using our engineer's risk prioritization protocol. The design engineer (Gannett Fleming) halted work on Cycle 5 following main replacement prioritization identification and preliminary project scoping until funds become available. Construction is not anticipated in 2020. **(No Change)**

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

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

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

The Water Filtration Plan (WFP) supplies water to residential and commercial customers in the City of Allentown, as well as wholesale water to surrounding communities. One of the critical elements at the WFP is the High Service Pumping System (HSPS), which is the primary means of conveying treated water into the distribution system. The HSPS has experienced regular failures of aging electrical components. The July 2017 Allentown Water Master Plan categorizes the pump variable frequency drives (VFDs) in very poor condition and notes that the VFDs are no longer supported by the manufacturer. This project will replace two of the existing VFDs and add a third VFD. This project is currently unfunded, but may be supported through a PENNVEST loan pending ongoing discussion with the City of Allentown. Board approval was granted at the 8/12/19 Meeting for the design phase of this project to ensure loan application timelines can be met - in the event an agreement can be reached. Contract drawings representing 90% design were received in mid-November. Since the discussions with Allentown were not concluded by

the 5/6/20 PENNVEST application deadline, the project is on hold. The next application deadline is 8/5/20. **(No Change)**

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

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

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

The project consists of installation of a new booster pumping station with SCADA and water main extension to pump water from the Lower Pressure System to the Upper Pressure System. The LCA Suburban Division will fund the project. Bids for the project were received on 6/29/18. Board approval for the construction phase of the project was granted at the 7/23/18 meeting. A preconstruction meeting was held on 8/28/19. Construction was substantially completed in February 2020. Current status is addressing punch list items not completed during start-up testing – construction is 99% complete. **(No Change)**

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

The project features the installation of a new booster pumping station and water main extension to interconnect the Central Lehigh Division (CLD) with the Upper Milford Division (UMD) allowing the abandonment of the UMD water supply facilities, and to provide water service to the proposed 123-lot Kohler Tract subdivision in Upper Milford Township. Costs are being shared between the LCA Suburban Division and the developer of the Kohler Tract (Jasper Ridge). Pumping station bids were opened on 4/25/19. Board approval for the construction phase of the project was granted at the 5/13/19 meeting and a preconstruction meeting was held on 6/25/19. The NPDES permit was issued on 3/9/20 and a premobilization teleconference was held on 3/19/20. Upper Milford Township has issued building permits. Construction is underway and is anticipated to be completed in October of 2020 – construction is 25% complete. **(No Change)**

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

The project will include setting up a surface water flow-monitoring network for the Little Lehigh Creek. The work is in response to the Watershed Monitoring Plan that was developed and reported to LCA by AI Guiseppe (SSM, Inc.) in 2017. In 2018, USGS selected the Delaware River Basin to pilot the National Next Generation Integrated Water Observing System (NGWOS). The Little Lehigh Watershed was picked as a targeted area of the NGWOS Project and additional surface water and ground water monitoring stations will be developed. USGS and LCA met on 11/19/2019 to discuss the proposed monitoring stations and the program in general. A follow up meeting was held on 12/16/2019. USGS and LCA have now found all three GW monitoring wells, LE860, LE 861 and LE862, who's usage had all been discontinued decades ago and their locations were presently unknown. USGS is now checking the viability of using them again. USGS has now completed the installation of (3) new SW Gauging Stations in the Little Lehigh Watershed and all (3) are collecting data. Additional SW flow monitoring stations are within the installation process. All six (6) Fybr sites are currently collecting flow data and the calibration process is expected to last several months. **(No Change)**

9. **Suburban Division – Buss Acres Pump Station Replacement Construction**

The project consists of the consolidation and replacement of two well stations with a single new pump station and a new water storage tank to replace two antiquated hydropneumatic pump stations. The new station will be a variable frequency drive controlled double pumping system with full SCADA control. The design will include radon reduction elements and also accommodate the future installation of additional radon removal equipment, to be implemented upon DEP's mandate of a regulatory limit. The project is in construction phase. The Notice to Proceed was issued to the contractors on 9/24/19. Construction began in February 2020 and is approximately 15% complete.

10. Suburban Division – Water Meter Reading Equipment Upgrade

LCA's capital program includes the replacement of 20,000 transceiver units, and 10,000 units will be replaced in 2019 with the remaining to be replaced in 2020 under separate authorization. The new units have a 20-year battery life and are compatible with the new meter reading software purchased in 2017. This project will replace 100% of the remaining old style radio units over a two-year period. Construction phase services for the first round of 10,000 units was approved at the 5/13/19 Board meeting. Construction began in July 2019 and a change order was issued to the contractor for the installation of the remaining transceiver units that were originally scheduled for replacement in 2020, in order to expedite the completion of the work under the program and take advantage of favorable contract unit pricing. The project is substantially complete. Work has been suspended due to the Covid-19 virus. as soon as restrictions are lifted, the contractor will return to install remaining radios and replace any radios that are not working properly. **(No Change)**

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

This Project is focusing on the development of an additional well for the Madison Park North system. An engineer has been retained to assist with the development of a second well for Madison Park North. An agreement is in place with an adjoining property owner to Madison Park North to drill a test well on their property, in coordination with DEP guidelines. 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 conditionally approved by DEP in late September of 2019. The reconstruction of the test well was completed in mid-January of 2020. The next item to be completed will be a 72-hour sustained pump test, scheduled for this summer. If the test is successful, we will need to obtain approval from the Agricultural Lands Condemnation Approval Board prior to permitting and construction of the new well facilities. 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.

WASTEWATER

ACTION ITEMS

1. **Suburban Division – Lynn Township Manhole Rehabilitation Project – July 13, 2020**

This project involves the rehabilitation of manholes in the Lynn Township service area found to be structurally deficient &/or leaking. The project includes frame and cover replacement, interior pipe connection grouting, exterior concrete work and sealing of manholes, and sealing around manhole frames located within roadway surfaces that are found experiencing infiltration through the frame and cover. The purpose of the project is to eliminate inflow and infiltration into manholes in the system. The project scope includes approximately 185 manholes will be rehabilitated in 2020. The project is anticipated to be advertised for bid in early June 2020, bids will be opened on 6/26/20, and construction phase authorization will be requested at the 7/13/20 LCA board meeting. Construction will be completed by late fall of 2020.

2. **Suburban Division - Heidelberg Heights 2020 Sanitary Sewer Replacement Project – July 27, 2020**

In accordance with the adopted, executed Corrective Action Plan mandated by DEP, LCA is required to complete annual I/I mitigation projects to eliminate hydraulic overloads and bypass events at the Heidelberg Heights wastewater treatment plant. The Order requires that all original vitrified clay sewer main and lateral pipe be replaced within the next 5 years. This project was originally advertised for bid in March 2020 and bids were opened on 3/24/20. The low bid price exceeded this capital project construction budget for 2020, and the LCA board authorized rejection of bids at the 4/13/20 board meeting. The project scope was modified to reduce cost and the project was re-advertised for bid in June 2020, bids will be opened on 7/13/20, and board authorization of construction phase is to be requested at the 7/27/20 LCA board meeting. Construction will be completed by late fall of 2020.

DISCUSSION ITEMS

INFORMATION ITEMS

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

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

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

DEP has noted that the KIWWTP has been performing at a high level and meeting its permitted effluent quality limits during a period of prolonged wet weather since early 2018. This study will provide the basis for confirming the plant’s maximum monthly average that can be sustained during prolonged periods of wet weather – while remaining in full compliance with effluent quality requirements of the plant’s permit. Approval of the study was granted at the 8/26/19 Board Meeting. The study was completed in mid-October 2019 and a Part II Permit was sent to DEP on 10/18/19. The permit will be resubmitted in early 2021 upon action by DEP on the Interim Act 537 Plan (to be submitted in September 2020). Therefore, the original permit submission is

100% completed – awaiting Revision #1. This project is considered an AO expense under terms of the Lease and is City funded.

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

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

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

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

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

Following several months of discussion with the Pennsylvania Department of Environmental Protection (PA-DEP), all municipalities flowing into the Kline's Island Wastewater Treatment Plan have agreed to complete an Interim Act 537 Plan ("Interim Plan") by September 2020. This Interim Plan will primarily consist of projecting new connections to the regional sewer system from 2021 through 2025 and outlining steps to be taken during this timeframe to prepare a full Regional (Long-Term) Act 537 Plan ("Regional Plan"). This two-step planning process has been developed to allow all municipalities to work cooperatively toward a Regional Plan to meet future sewer capacity needs of the region, and to provide proper regulatory oversight and control of new connections to the system while the Interim Plan is in force from 2021 to 2025. To begin the process of compiling the Interim Plan, a consulting engineer has been preliminarily retained, and approval of their full Professional Service proposal was granted at the February 10, 2020 Board meeting. Costs associated with the development of the Interim Plan will be paid by the City of Allentown and reimbursed through existing intermunicipal agreements and by City customers through the use of the Administrative Order Fee. As of late June 2020, the Interim 537 Draft is 100% completed and was delivered to sixteen planning commissions on 3/16/2020. Planning commission meetings have occurred with public advertisement opening on 6/10/20 and will be closing on 7/10/20. Municipal resolution adoptions are anticipated in August with delivery to DEP by 9/14/20.

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

As part of the Interim Act 537 Plan, the municipalities served by the Kline's Island Sewer System have committed to completing a flow metering and modeling project beginning in 2021. The flow

metering data will be used to prepare modeling and identify the capital improvements needed to meet the future sewage capacity needs of the region through 2050. The flow metering will include a mix of temporary meters and the existing sewage billing meters. Data delivery and storage procedures, quality assurance, and flow analytics need implemented in 2020 for these sewage billing meters. Without this meter development program, the data cannot be used from these meters. Therefore, to prepare for 2021 flow metering, a consulting engineer has been preliminarily retained, and approval of their full Professional Service proposal was granted at the April 27, 2020 Board meeting. Costs associated with the development of the 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. **(No change)**

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

Future flow metering work is anticipated over the next several years for both the Western Lehigh service area as well as the entire regional Kline's Island Sewer System. In 2020, the Western Lehigh group will conduct flow metering for a period of eight months to gather additional data on inflow and infiltration and the impact of prior rehabilitation work. It is anticipated that more extensive flow metering will be required in 2021 and 2022 to develop a Regional Plan. Approval of a Professional Services Authorization and three-year contract with Flow Assessment Services was granted at the February 10, 2020 Board meeting. Also on February 10, 2020, the Board approved a Professional Services Authorization for Arcadis to provide quality assurance and data analysis services for the 2020 flow monitoring program. As of late June 2020, all temporary flow meters and rain gauges for the 2020 program have been installed (data collection is 50% completed). The initial QA/QC of the data has concluded and recommendations provided.

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

The Western Lehigh Sewer Partnership (WLSP) hydraulic model has been calibrated using 2019 flow meter and rainfall data and is available to support long-term Act 537 planning for the Western Lehigh Interceptor (WLI). Five separate modeling tasks will be performed in order to facilitate broader Kline's Island Sewer System (KISS) planning need discussions. The results of this 2020 modeling will help to inform further future modeling decisions and alternative analyses that will occur during the full KISS model calibration period in 2022. A consulting engineer has been preliminarily retained and full authorization was granted at the 5/11/2020 Board meeting. The full model results will be available by November of 2020. The project will be funded by the LCA Suburban Division.

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

The Park Pump Station and Force Main line were constructed in 1980 to provide wet weather relief to the Little Lehigh Creek Interceptor, which conveys wastewater from ten municipalities from outlying areas to the Kline's Island Wastewater Treatment Plant (KIWWTP). The force main consists of 8,715 linear feet of prestressed concrete cylinder pipe (PCCP) of various sizes (2,615' of 24"; 2,695' of 30"; and 3,405' of 36"), and connects with the 54" sanitary sewer interceptor that runs to KIWWTP. PCCP is particularly sensitive to deterioration due to hydrogen sulfide gas from wastewater, and corrosion of exposed reinforcing steel can result in structural degradation and pipe failure. An internal investigation of the pipe is required to assess the condition of the PCCP pipe and identify damage areas, in order to determine the locations and extent of rehabilitation needed to restore the level of service, prolong service life, and mitigate the risk of failure. LCA will conduct a limited manned inspection 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.

10. **Suburban Division – Park Pump Station Upgrade**

The Park Pump Station is to be upgraded to address mitigate risk of failure, restore station capacity, and prolong the service life of this critical facility. Design was completed in December 2017. The Park Pump Station Upgrade was advertised for bid in December 2017, pre-bid meeting was held on 1/4/2018, and bids were opened 2/1/2018. Construction phase was authorized at the 2/12/2018 Board meeting. Notice to proceed for the construction contracts was issued dated 3/26/2018. A pre-construction meeting was conducted in early April 2018, and construction was substantially completed in January 2020. Start-up and performance testing of the new mechanical and electrical equipment was successfully performed in January 2020, and the project is approximately 99% complete. Final project completion and contract closeout will be completed early Summer 2020. **(No Change)**

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

Wynnewood Terrace WWTP was constructed in 1980 by the developer to serve the Wynnewood Terrace subdivision, located in the Laury's Station area in North Whitehall Township. Sewer service is provided to approximately 217 residential and 2 commercial properties. LCA acquired the system in 2003.

The plant, while meeting effluent limits, has reached the end of its useful life. The plant is constructed of in-ground steel tanks that are in poor condition, with areas of corrosion and loss of structural integrity. The mechanical and electrical systems are also at the end of their service life and in need of replacement. The proposed project includes replacement of the existing treatment facility in entirety with new technology and concrete tanks appropriate for the wastewater flows and loading characteristics. The new facility shall meet the effluent limits criteria established in the respective DEP and DRBC permits, including new or additional limits that may be imposed during the permitting process. Design phase was authorized in February 2017 and was concluded in late Summer 2018. The DEP Part 2 Water Quality Management Permit was received in March 2018. The project was advertised for bid in August 2018, bids were opened in September 2018, and bids were authorized for award at the October 22, 2018 Board meeting. Construction work mobilized in early 2019 and is anticipated to finish in Summer 2020. Construction is approximately 95% complete. **(No Change)**

12. **Suburban Division - Lynn Township Corrective Action Plan**

Excessive inflow and infiltration (I&I) and high wet-weather flows into the Lynn Township sewer system has been ongoing and increasingly challenging to address. As noted in LCA's monthly operations reports, treatment plant bypasses and sanitary sewer overflows have occurred in this system and must be addressed. On 6/4/19 a meeting was held with DEP, Lynn Township and LCA representatives as a result of a hydraulic overload at the wastewater treatment plant, based on 2018 Chapter 94 Report monthly plant flows. At the meeting, DEP directed LCA to submit an amendment to the pre-existing Corrective Action Plan (originally submitted by Lynn Township Sewer Authority) to include an updated system condition assessment and an outline of steps to be taken to mitigate I/I flows and maintain NPDES permit compliance. The Corrective Action Plan (CAP) includes structural and non-structural initiatives and involves coordination with the host municipality. The framework for the CAP was shared with the Board in February 2019. A meeting was held at Lynn Township with DEP in June 2019 to discuss the Lynn Township CAP and Township sewer planning/growth issues, and DEP directed LCA to submit a CAP Amendment by the end of summer 2019. The CAP Amendment contained an updated sewer system condition assessment and a corrective plan to further mitigate I/I flows. Updated CCTV work of the entire system was substantially completed in August 2019, and the inspection data was summarized in the CAP Amendment and is being used to scope a capital repair project. The Lynn Township Board of Supervisors adopted a sewer system rules and regulations ordinance on 9/12/19, which gives LCA the authority to inspect private laterals and facilities for illegal connections and perform follow-up enforcement. A meeting with DEP and Lynn Township representatives was held on 1/15/20 to discuss the CAP Amendment and plan moving forward.

DEP sent a letter to LCA dated 6/8/20 granting 55 EDUs of sewer allocation relief for new connections to the system.

13. Suburban Division - Heidelberg Heights Corrective Action Plan

On 2/11/19, DEP submitted a notice of violation to LCA regarding bypasses and permit exceedances at the Heidelberg Heights wastewater treatment plant. As discussed with the LCA Board during several meetings in 2018, this small satellite system has been challenged by high groundwater levels and significant infiltration and inflow (I&I) of clear water into the sewer system during rain events. LCA staff met with DEP officials on March 6, 2019 to discuss the problems and, as a result, LCA prepared a comprehensive Corrective Action Plan (CAP) and submitted DEP on 5/5/19. A draft of the plan was attached for Board review at the 4/22/19 Board meeting. The final CAP was submitted to DEP on 4/29/19. The Heidelberg Heights Board of Supervisors approved the advertisement for adoption of a sewer system rules and regulations ordinance on 9/19/19, which gives LCA the authority to inspect private laterals and facilities for illegal connections and perform follow-up enforcement. The ordinance was adopted by the township the in October 2019. A Consent Order & Agreement (CO&A) was drafted by DEP and sent to LCA in May 2020, which incorporates the projects and schedule outlined in LCA's proposed CAP. The final CAP was adopted by resolution by the LCA board at the 6/22/20 meeting.

14. 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. **(No Change)**

15. Suburban Division - Trexlertown Wastewater Storage Facility

As part of the Western Lehigh service area's Sewer Capacity Assurance & Rehabilitation Program (SCARP), a conveyance capacity "bottleneck" was identified in the Trexlertown area of the Western Lehigh Interceptor, and this area was assigned a high priority due to occurrence of sanitary sewer overflows and basement backups in the vicinity. A parallel interceptor was originally conceived to run approximately from Cetronia Rd to Spring Creek Rd. The concept was modified to focus on providing storage capacity in the system for this area, due to concerns about downstream hydraulic impacts. This project is an interim solution to address local impacts of the system bottleneck, and will become part of the future long-term solution to alleviate regional conveyance capacity challenges. A pre-design feasibility study is being performed to

evaluate various engineering alternatives, including an “in-line” parallel storage tank, conventional concrete tank (flow equalization basin), or other options. Award of the pre-design feasibility study to HDR was authorized at the 10/21/2019 Board meeting. The study is on hold until modeling data is received from Arcadis. **(No Change)**