



LEHIGH COUNTY AUTHORITY

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

Published: June 1, 2020

BOARD MEETING AGENDA – June 8, 2020

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

- *May 11, 2020 Board meeting minutes*
- *May 18, 2020 Board meeting minutes*

4. Public Comments

5. Action / Discussion Items:

FINANCE AND ADMINISTRATION

- *LCA 457(b) Plan & OPEB Trust Administrators (Resolutions 6-2020-1 & 6-2020-2) (Approval) (pink)*

WATER

WASTEWATER

- *Allentown Division – Kline's Island WWTP: Sodium Hypochlorite System Installation Project – Construction Phase (Approval) (goldenrod)*
- *Suburban Division – Park Pump Station (PPS): Force Main Bypass Trials and Initial Inspection – Arcadis Professional Services Agreement (Approval) to be distributed at a later date*
- *Suburban Division – Western Lehigh Manhole Rehabilitation Project (Approval) (green)*

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

Meetings begin at Noon at LCA's Main Office, unless noted otherwise below.

June 22, 2020

July 13, 2020

July 27, 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

May 11, 2020

The Regular Meeting of the Lehigh County Authority Board of Directors was called to order at 12:01 p.m. on Monday, May 11, 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, Jeff Morgan, Amir Famili, Linda Rosenfeld, Richard Bohner and Ted Lyons were present through ACT for the duration of the meeting. Board member Scott Bieber, Norma Cusick, and Kevin Baker joined the meeting while it was in progress.

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

Chairman Nagle announced that the Board received their packets prior to the meeting.

REVIEW OF AGENDA

Liesel Gross requested the deletion of an agenda item. The Kline's Island WWTP Sodium Hypochlorite System Installation Project will be discussed at a future meeting. There is no need for an Executive Session after today's meeting. Chairman Nagle reminded the Board and Staff that the next Board meeting is next Monday, May 18th and there will be an Executive Session to discuss personnel and matters of potential litigation after the regular meeting on Monday, May 18, 2020.

APPROVAL OF MINUTES

April 27, 2020 Meeting Minutes

Richard Bohner noted a few grammatical errors. On a motion by Richard Bohner, seconded by Linda Rosenfeld, the Board approved the minutes of the April 27, 2020 Board meeting as corrected (7-0).

PUBLIC COMMENTS

None.

ACTION AND DISCUSSION ITEMS

Suburban Division – Western Lehigh Service Area: 2020 Sewer Modeling

Phil DePoe gave an overview of the Western Lehigh Sewer Partnership hydraulic model that has been calibrated using 2019 flow meter and rainfall data. The model will be used to support long-term Act 537 planning for the Western Lehigh sewer service area. The Authority intends to retain Arcadis to use the calibrated model to analyze scenarios that will support decision-making regarding future system improvements. Mr. DePoe reviewed costs associated with the flow model calibration and preliminary modeling work completed in prior phases of this project. The next phase of modeling will utilize \$53,000 of funds authorized for this prior work, and requires an additional authorization of \$89,000 to complete the project.

Mr. DePoe reviewed and described each of the five tasks included in the proposed modeling project. Task 1 relates to the evaluation of scenarios to provide additional wastewater storage or conveyance capacity to relieve hydraulic restrictions in the interceptor that serves the Trexlertown area. This work is critical and will be completed by the end of June 2020. The remaining four tasks will be completed by November 2020 and will support regional Act 537 planning work that will begin in 2021. A proposal was attached from Arcadis describing each of the tasks in detail. There was some Board discussion.

On a motion by Norma Cusick, seconded by Linda Rosenfeld, the Board approved the Professional Services Authorization to Arcadis in the amount of \$89,000.00 to provide hydraulic sewer modeling services for the Western Lehigh sewer service area (8-0).

Kline's Island Sewer System – Interim Act 537 Plan

Liesel Gross gave a presentation on the Kline's Island Sewer System Interim Act 537 plan and reviewed the background of the project. Since August 2019, the fifteen municipalities that use the regional sewer system have been collaborating with the Pennsylvania Department of Environmental Protection (DEP) on plans to address future sewer capacity requirements. The municipalities and DEP have agreed to complete the planning work in two stages. The first is to develop an Interim Act 537 Plan, which describes the planning activities that will take place over the next five years from 2021 to 2025. During this five-year period, the municipalities will also be working on their sewer system rehabilitation projects to reduce inflow and infiltration (I&I). New sewer system connections during the five-year planning period will be approved by DEP based on a connection management plan that is also specified in the Interim Act 537 Plan. The planning work to be completed by 2025 includes: developing flow and growth projections through 2050; completing the sewage billing metering evaluation program; comprehensive flow monitoring to collect updated data on system flows and I&I by municipality; updating the regional hydraulic model to support evaluation of conveyance system requirements; evaluation of treatment alternatives to address current and future flows; analysis of alternatives including engineering, financial, legal, administrative, climate change, and other evaluations; and development of a final long-term sewage facilities plan to address the region's future sewage capacity needs.

Phil DePoe reviewed the connection management plan approved by DEP for new connections in 2020 along with the projected new flows from each municipality for the 2021 to 2025 planning period. Sewage planning modules will be tracked to ensure that new connections to the sewer system do not exceed these allocations over the next five years.

Mr. DePoe reviewed other details regarding the Interim Act 537 Plan. He explained the Authority and City of Allentown will submit an updated permit amendment application to DEP for the Kline's Island Wastewater Treatment Plant to increase the plant's rated hydraulic capacity to 44 million gallons per day (MGD). This is a 4 MGD increase from the current permit of 40 MGD and will cover the new connections expected during the five-year period. A recent engineering evaluation was completed to illustrate the treatment plant's hydraulic capacity, which will be included with the permit application when it is submitted to DEP.

Mr. DePoe stated that the COVID-19 pandemic emergency may impact the Interim Act 537 Plan by delaying the submission of comments from the municipal planning commissions, and delaying the public comment period, which is now scheduled to start on June 10, 2020. The municipalities' final approval of the Interim Act 537 Plan is expected to occur later this summer, and the plan will be submitted to DEP in September 2020. Mr. DePoe also noted that the long-term impacts of the

pandemic on the region's economic growth is not known, but may impact the long-term Act 537 planning process.

Liesel Gross noted that the approval process for the Interim Act 537 Plan involves all fifteen municipalities served by the system. Since the Authority is not a municipality, the Board of Directors is not required to approve the plan, but may choose to do so in order to illustrate commitment to the regional plan. The Authority will have significant responsibilities in the planning process and is expected to take a leadership role in developing the long-term Act 537 Plan. She noted that the Board should submit any questions they may have on the Interim Act 537 Plan in writing, so they can be incorporated into the final submission.

There was some Board discussion regarding the sewage planning module approval process.

Solicitor Mike Gaul noted that the Authority sees every planning module and will know if a developer or municipality requests sewer allocation for a new development that exceeds the amount approved by DEP via the connection management plan. Liesel Gross said that all planning modules are being tracked closely.

MONTHLY PROJECT UPDATES / INFORMATION ITEMS

Liesel Gross noted that the Audit will be completed by the end of May and will be on the agenda in June for discussion. For the upcoming May 18 meeting, there will be an update and retroactive emergency declaration for the water main break that occurred at 17th and Walnut Streets on April 29, 2020. Ms. Gross stated that a full report will be sent to the Board within the coming week. Chairman Nagle commended the staff in doing a great job of fixing this break quickly. Chairman Nagle reminded the Board that there will be an Executive Session regarding personnel matters and potential litigation at the May 18 meeting.

STAFF COMMENTS

None.

SOLICITOR'S COMMENTS

None.

PUBLIC COMMENTS / OTHER COMMENTS

None.

EXECUTIVE SESSION

None.

ADJOURNMENT

There being no further business, the Chairman adjourned the meeting at 1:16 p.m.

Richard Bohner
Secretary

REGULAR MEETING MINUTES

May 18, 2020

The Regular Meeting of the Lehigh County Authority Board of Directors was called to order at 12:01 p.m. on Monday, May 18, 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, Ted Lyons, Jeff Morgan, Linda Rosenfeld, Richard Bohner, Amir Famili, and Kevin Baker were present through ACT for the duration of the meeting. Board members Norma Cusick and Scott Bieber joined the meeting while it was in progress.

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

REVIEW OF AGENDA

Liesel Gross stated there are no changes to the agenda. The Emergency Declaration memorandum was sent to the Board separately last week and was also posted to the Authority's website. There will be an Executive Session after the regular meeting to discuss matters of potential litigation and personnel.

APPROVAL OF MINUTES

None. Minutes will be approved at the first meeting in June.

PUBLIC COMMENTS

None.

ACTION AND DISCUSSION ITEMS

Norma Cusick entered the meeting via ACT at 12:06 p.m.

Emergency Declaration – 36" Water Main Break at S. 17th & Walnut Streets

John Parsons reviewed the 36-inch water main break that occurred on April 29, 2020 at 17th and Walnut Streets in Allentown. He asked for approval of the Emergency Declaration because the costs of repair were in excess of \$50,000.00 and regular Authority purchasing requirements for materials and contractor services could not be followed during this event, in order to ensure a timely response to the emergency. Staff from the Distribution and Collection Department and the Water Filtration Plant isolated the leak within 90 minutes of the break. Mr. Parsons noted that the costs for final paving were shared with UGI because they had the opportunity to replace a 4-inch gas line prior to the roadway being restored. Since this same line experienced a cracked bell approximately 1300 feet north of this site in February 2020, the damaged pieces of the pipe were sent to US Pipe for analysis. The report is expected within a few weeks. There was some Board discussion. Linda Rosenfeld asked if this Emergency Declaration covers any damage to neighboring homes considering the amount of water that was leaked. Liesel Gross stated that the Emergency Declaration does not cover the expense of repairing any private property damage. Ted Lyons asked

how the line was isolated. John Parsons explained that several valves were closed that lead into the line and pumps that supply water to this line at the water filtration plant were shut down. Linda Rosenfeld commented that her home is served by this water line and she only experienced reduced water pressure for a period of about 30 minutes. Chairman Nagle commended the Staff and crews for their work to repair the line and acknowledged all the contributions and efforts for a job well done. Liesel Gross noted several departments that responded quickly and with excellent teamwork to support a unified response to this emergency.

On a motion by Linda Rosenfeld, seconded by Norma Cusick, the Board approved the Emergency Declaration for a total of \$125,112.00 (8-0).

MONTHLY FINANCIAL REVIEW

Ed Klein noted that the April 2020 financial report will be provided at a later date.

MONTHLY SYSTEM OPERATIONS OVERVIEW

John Parsons gave an overview of the April 2020 report. Jeff Morgan asked about the class of ductile iron pipe used for the water line at 17th and Walnut Streets. Mr. Parsons said the 36-inch water main is a Class 50 ductile iron pipe, which is a concern due to the reduced thickness of the pipe wall. Typical installation by current standards would require a Class 52 pipe material to be used; however, more information will be provided in the report from US Pipe regarding the condition of the pipe. Richard Bohner asked if the incidents of foreign materials that being flushed into the sewer system has gotten better since the Authority's last discussion on this matter. Mr. Parsons said the incidents of sewer backups has been reduced, which may be attributed to good communication with the public about what not to flush down the toilet, as well as return to more normal supply of toilet paper in the local stores.

Jennifer McKenna, Office of Compliance City of Allentown, commented that the water main break that occurred was the topic of discussion at a recent compliance meeting and the City was inquiring about similar topics as those discussed during this Authority meeting. She noted that the Class 50 pipe that was used in the 1983 installation of this water line was acceptable for use at the time by then-current standards.

STAFF COMMENTS

Liesel Gross reported that there will be another Emergency Declaration coming next month regarding the main break at 17th and Sumner streets in Allentown to a 12-inch spun-cast iron line. The repair has been made but there is significant road work that will need to be done. Ms. Gross also noted that the Authority is working to notify the public regarding the importance of flushing the interior plumbing of commercial properties that have been shut down due to the COVID-19 pandemic. Flushing the interior plumbing is required to bring freshwater into those buildings and remove any stagnant water that may be left in the pipes after a long period of no usage. Linda Rosenfeld asked if the decontamination services are aware of this water system flushing requirement. Ms. Gross noted that there are many cleaning companies offering services to help business prepare to reopen, and it would be a good idea to notify them as well.

SOLICITOR'S COMMENTS

Solicitor Gaul asked for confirmation of the motion made regarding the Emergency Declaration. Chairman Nagle asked for a vote to approve the Emergency Declaration, based on the motion made earlier in the meeting. The Board approved the Emergency Declaration (8-0).

PUBLIC COMMENTS / OTHER COMMENTS

None.

EXECUTIVE SESSION

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

ADJOURNMENT

There being no further business, the Chairman adjourned the meeting at 12:31 p.m.

Richard Bohner
Secretary



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MEMORANDUM

TO: LCA Board of Directors
FROM: Liesel Gross, CEO
DATE: June 1, 2020
RE: Changes to 457(b) Plan and OPEB Trust administrators

For the past 30 years, Lehigh County Authority (LCA) has offered employees the opportunity to plan for their retirement through additional pre-tax investment in a 457(b) plan, which is a form of retirement plan specific for government employees. LCA does not contribute toward this plan as it is supplemental to the defined-benefit pension plan that is administered by the Pennsylvania Municipal Retirement System. The 457(b) plan is similar to a more traditional 401(k) plan in that employees may select from a variety of mutual funds and invest in accordance with their personal plans for retirement and tolerance for market risk. LCA's 457(b) plan was established with International City Management Association Retirement Corporation (ICMA-RC) in January 1990.

In 2010, LCA established a trust account to manage future costs associated with other post-retirement employee benefits (OPEB) for employees hired before 2005. Retiree health care was discontinued for employees hired on or after January 1, 2005. The trust account was established with ICMA-RC and reported annually in LCA's audit statements.

At the June 8, 2020 LCA Board meeting, staff will ask for approval of two Resolutions to establish a new custodian for the 457(b) plan with Great West Trust Company and a new trust agreement with SEI Trust Company for the OPEB trust account. These Resolutions are attached to this memo.

While not specifically described in the Resolutions which are required to establish these new contracts, the change was initiated after exploring a partnership between BSI Corporate Benefits, LCA's health and welfare benefits consultant, and Legacy Planning Partners. Legacy is a firm located in Allentown that will serve as an independent financial advisor to LCA and our employees to allow for improved investment management, a service not currently provided by ICMA-RC.

The primary drivers for seeking a change include:

- Enhanced options for employees to invest in their retirement
- Enhanced customer service and financial planning support for employees
- Managed investment portfolio to increase performance on the OPEB investment
- Lower fees for employees, depending on their investment selections
- Enhanced plan administration support → reduced LCA staff administration of employee accounts

LCA staff is excited to offer these enhancements to employees. The 457(b) plan is fully funded by employee contributions, and the OPEB trust account is also fully funded for the group of eligible employees it covers. The primary impact of the recommended changes will be an enhancement in service to employees and potential improvement of fund performance.

Every drop matters. Every customer counts.

RESOLUTION No. 6-2020-1

(Duly adopted 8 June 2020)

A RESOLUTION OF LEHIGH COUNTY AUTHORITY APPROVING A CUSTODIAL ACCOUNT AGREEMENT ESTABLISHING A CUSTODIAL ACCOUNT FOR THE ADMINISTRATION OF THE LEHIGH COUNTY AUTHORITY 457(B) PLAN FUNDS AND APPOINTING THE GREAT-WEST TRUST COMPANY, LLC, TO SERVE AS CUSTODIAN OF THE CUSTODIAL ACCOUNT.

WHEREAS, the Lehigh County Authority (the "Authority") has employees rendering valuable services; and

WHEREAS, on January 8, 1990, by Resolution No. 1-90-1, the Authority established a 457(b) Deferred Compensation Plan (the "457(b) Plan") for the Authority's eligible employees and appointed ICMA Retirement Corporation to administer the investment of funds; and

WHEREAS, the Authority wishes to continue its 457(b) Plan and desires to appoint the Great-West Trust Company, LLC, to hold 457(b) Plan funds pursuant to the terms of the Custodial Account Agreement attached hereto.

NOW THEREFORE, be it resolved by the Board of this Authority, as follows:

1. The Board approves the Custodial Account Agreement in the form and substance attached hereto, with such additions or modifications as deemed necessary or appropriate by Authority officials executing the document, which approval shall be conclusively evidenced by the execution thereof.
2. Funds which are a part of the 457(b) Plan will continue to be held for the benefit of the employees and their eligible dependents under and in accordance with the 457(b) Plan.
3. All Resolutions, or parts of Resolutions, inconsistent with this Resolution are hereby repealed insofar, but only, insofar, as the same are inconsistent herewith.
4. If any section, subsection, sentence, clause or phrase of this Resolution is, for any reason, held to be illegal or unconstitutional, such decision shall not affect the validity of the remaining portions of this Resolution.

On motion of _____, seconded by _____,
this Resolution was adopted the 8th day of June 2020.

Tally of Votes: Yeas _____ Nays _____



I, Michael A. Gaul, Solicitor of Lehigh County Authority, do hereby certify that the foregoing is a true, correct and complete copy of a resolution which was duly adopted by the Authority at a public meeting of the Authority held on 8 June 2020, after notice thereof had been duly given as required by law, at which meeting a quorum was present and voting and which resolution No. 6-2020-1 is now in full force and effect on the date of this certification.

_____	_____
Michael A. Gaul, Esquire	Date
Lehigh County Authority Solicitor	

Attest:

_____	_____
Lisa A. Miller	Date
Executive Administrative Support Specialist	

CUSTODIAL ACCOUNT AGREEMENT

Establishing

The

CUSTODIAL ACCOUNT

By and Between

Lehigh County Authority

And

Great-West Trust Company, LLC

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THIS CUSTODIAL ACCOUNT AGREEMENT is made between Lehigh County Authority, in its capacity as the sponsoring employer of the Plan described below (hereinafter called the "Employer"), and Great-West Trust Company, LLC, a trust company chartered under the laws of the State of Colorado having a place of business in Greenwood Village , Colorado (hereinafter called the "Custodian").

WITNESSETH:

WHEREAS, the Employer has established or adopted for its eligible employees the Lehigh County Authority 457(b) Plan (hereinafter called the "Plan");

WHEREAS, the box checked immediately below describes the type of Plan so established or adopted by the Employer;

☒ Code section 457(b) governmental

WHEREAS, the Employer is authorized under the terms of the Plan to appoint a Custodian; and

WHEREAS, the Employer, if applicable, has appointed _____ as Plan Administrator, as defined by ERISA. If not so appointed, the Employer shall be the Plan Administrator. If applicable, the Plan Administrator is authorized under the Plan to appoint a custodian to hold plan funds; and

WHEREAS, the Employer or Plan Administrator, as applicable, desires the Custodian to hold Plan funds and the Custodian is willing to hold such funds pursuant to the terms of this Custodial Account Agreement; and

NOW, THEREFORE, in consideration of the promises and mutual covenants herein contained, the parties hereto do hereby mutually declare and agree as follows:

Section 1: Establishment of Custodial Account.

(a) In order to carry out the purposes of the Plan, a Custodial Account (hereinafter called the "Custodial Account") is hereby created and established. The Custodian accepts this Custodial Account and agrees to act as Custodian hereunder, but only on the terms and conditions set forth in this Custodial Account Agreement. This Custodial Account shall be effective on the date this Custodial Account Agreement is executed by the Custodian.

(b) The Custodial Account shall include only those assets that the Custodian initially accepts and assets that are subsequently added pursuant to the provisions of Sections 3 and 4 of this Custodial Account Agreement. Only assets actually received by the Custodian will become part of the Custodial Account. The Employer, or Plan Administrator, as applicable, acknowledges and agrees that it is responsible for effectuating the transfer of any assets held by a prior Custodian or custodian to the Custodian. All assets so received, together with the income therefrom and any other increment thereon, shall be held by the Custodian pursuant to the terms

of this Custodial Account Agreement without distinction between principal and income and without liability for the payment of interest thereon.

Section 2: General Duties of the Employer; Indemnification.

(a) The Employer shall control and manage the operation of the Plan. The Employer shall be responsible for determining benefit rights under the Plan, instructing the Custodian in the disbursement of benefits, investment management, soliciting stock voting instructions from Plan participants, directing the Custodian in voting proxies, and performing those plan administration functions specified in the Plan.

(b) The Custodian shall be fully protected and shall incur no liability in acting in reliance upon the instructions or directions of the Plan Administrator, the Employer or its designees, including any investment manager(s) that the Employer identifies to the Custodian as persons authorized to direct the investment of the Plan's assets (each, an "Investment Manager") and Plan participants in the case of a participant-directed individual account plan. For purposes of this Custodial Account Agreement, any reference herein to directions or instructions from the Employer shall include directions or instructions from any such designees.

(c) The Employer shall indemnify and save harmless the Custodian, its affiliates, and their officers, agents and employees (each, an "Indemnified Person") for and from any Liability, as defined below, that may be imposed on, incurred by, or asserted against any Indemnified Person in connection with or arising out of (i) any matter as to which the Custodian has complied with directions or instructions as contemplated by this Custodial Account Agreement or has refrained from acting in the absence of directions or instructions as contemplated by this Custodial Account Agreement, (ii) any matter to which the Custodian has acted in accordance with its applicable standard of care under this Custodial Account Agreement, or (iii) any breach of any statutory or other duty owed to the Plan by the Employer, the Plan Administrator, any Investment Manager or any delegate of any of them. In addition to and in no way in limitation of the foregoing indemnification, the Employer hereby agrees to indemnify and hold harmless the Custodian from and against any Liability to which the Custodian may be subject by reason of any act or omission of any prior, subsequent or existing custodian of the Plan. "Liability" means any liability, loss, cost, damage, penalty, fine, obligation or expense of any kind whatsoever (including, without limitation, reasonable attorneys', accountants', consultants' or experts' fees and disbursements).

(d) The Custodian, its affiliates, and their officers, agents and employees may bring action against the Employer to contribute to the satisfaction of any Liability to the extent that the Liability (i) is not subject to indemnification under subsection (c) and (ii) is caused by the culpable conduct of the Employer, the Plan Administrator, an Investment Manager, or their respective agents.

(e) The Custodian shall have no obligation to undertake, defend or continue to maintain any action or proceeding arising in connection with the Plan, unless and until the Employer requests the Custodian to do so and agrees in writing to indemnify the Custodian against the Custodian's costs, expenses and liabilities (including, without limitation, attorneys' fees and expenses) relating thereto, to be primarily liable for such payment and to make periodic payments in respect of such fees and expenses during the course of such proceedings. If the Employer thereafter does not pay such costs, expenses and liabilities in a reasonably timely

manner, the Custodian shall discontinue participation in such action or proceeding and charge the assets of the Custodial Account to the extent sufficient for any unpaid fees and expenses.

(f) Under no circumstances will the Custodian be liable for any indirect, incidental, consequential or special damages (including, without limitation, lost profits) of any form incurred by any person or entity, whether or not foreseeable and regardless of the type of action in which such a claim may be brought. No action, regardless of form, arising out of or pertaining to the Custodian's services hereunder may be brought more than six years after the cause of action has accrued. Subject to the exclusion of liability for indirect, incidental, consequential or special damages, the Custodian will be liable for direct damages suffered by the Plan, the Employer and the Plan Administrator to the extent such direct damages result from the Custodian's fraud, gross negligence, or willful misconduct in performing its duties as set out in this Custodial Account Agreement.

(g) The foregoing rights of indemnification and contribution shall not limit any rights or remedies that may be available to the Custodian under law.

(h) If the Employer is a governmental entity, the foregoing rights of indemnification and contribution are subject to any indebtedness limitations applicable under the entity's governing laws.

Section 3: General Duties of Custodian.

(a) The Custodian shall receive, hold, invest and reinvest the assets of the Custodial Account pursuant to the provisions of this Section and Section 4 in accordance with the directions received by it from Employer or Plan Administrator, as applicable, or its designees and shall have no duty to determine any facts or the propriety of any action taken or omitted by the Custodian in good faith pursuant to instructions from the Plan Administrator, Employer, or its designees.

(b) The Custodian shall be responsible only for such assets as are actually received by it as Custodian hereunder. The Custodian shall have no duty or authority to ascertain whether any contributions should be made to it pursuant to the Plan or to bring any action to enforce any obligation to make any contribution, nor shall it have any responsibility concerning the amount of any contribution or the application of the Plan's contribution formula.

(c) The duties and obligations of the Custodian hereunder shall be limited to those expressly imposed upon it by this Custodial Account Agreement, notwithstanding any reference contrary in the Plan, and no further duties or obligations of the Custodian shall be implied. For example, the Custodian shall have no duty to determine the prudence of any Plan investment directed to be made by the Plan Administrator or its designees, to diversify Plan investments, or to make any investment decisions. The Custodian shall not be liable for any loss to, or diminution of the Plan assets, or for any other loss or damage that may result from the discharging of its duties hereunder if it acts in good faith and in accordance with the terms of this Custodial Account Agreement and in accordance with the applicable federal or state laws, rules, and regulations.

(d) Custodian and its agents shall perform their responsibilities in a manner consistent with that of a professional custodian acting in the jurisdiction in which the assets are located.

Section 4: Power and Duties of Custodian with Respect to Custodial Account Assets.

The Custodian shall have the following powers and duties regarding the Custodial Account:

(a) To hold title to the assets of the Custodial Account, which may include entering into depository arrangements for the safekeeping of assets and records relevant to the ownership of such assets with any bank or banks and/or depositories as the Custodian may choose and the right to hold such assets in nominee name and in any other book entry or any other data processing form.

(b) To invest the assets of the Custodial Account in investment options selected by the Employer for which an affiliate of Custodian (hereinafter called "Recordkeeper") provides recordkeeping services pursuant to an election made by the Employer with Recordkeeper including, but not limited to, funds invested through a self-directed option. Additionally, the Custodian may invest in "qualifying employer securities", as that term is defined under ERISA Section 407, if applicable, only in accordance with the directions received from the Employer. The Custodian shall have no duty or responsibility to determine the appropriateness of any Plan investment (including but not limited to whether "qualifying employer securities" meet the applicable percentage limitations under ERISA Section 407) or to cause such investments to be changed.

(c) To make transfers among investment vehicles or disbursements from the Custodial Account as directed by the Employer, its designees, or Participants as allowed by the terms of the Plan. The Custodian shall be indemnified by the Employer and entitled to rely on such direction and shall have no responsibility to ascertain whether the Plan permits such a transfer or disbursement.

(d) To delegate to Recordkeeper, affiliates or others, any or all of its duties arising out of this Agreement, including but not limited to, recordkeeping and reporting. Also, the Custodian may utilize the services of outside custodians to hold on the Custodian's behalf any of the Plan's assets invested in securities, which assets may be held in the custodian's nominee name.

(e) To vote securities proxies as directed by the Employer or its designees.

Section 5: Additional Services.

(a) If applicable, the Custodian shall provide the additional reporting and administrative services as set forth in the applicable Appendix to this Custodial Account Agreement (the "Additional Services"). The provision of any Additional Services shall be subject to the terms and conditions of this Custodial Account Agreement, except as otherwise specified in the applicable Appendix. Capitalized terms in the applicable Appendix that are not defined in such Appendix but are defined in this Custodial Account Agreement shall bear the definition set forth in this Custodial Account Agreement. If there is any conflict or inconsistency between the terms of an applicable Appendix and this Custodial Account Agreement, the terms of the applicable Appendix shall prevail.

(b) The Employer acknowledges and agrees that: (i) the Additional Services are provided exclusively for the purpose of assisting the Employer in monitoring and administering the Plan's investments; (ii) the Custodian is not undertaking any discretionary responsibility for the management or administration of the investments by performing the Additional Services; (iii) the provision of the Additional Services is not intended to be a primary basis for any investment decision; and (iv) the Custodian is not acting in a fiduciary capacity with respect to the Additional Services. Accordingly, the Custodian shall not be liable for any investment losses arising from any reliance on the Additional Services or any information provided in connection with them.

(c) Notwithstanding any other provision of this Custodial Account Agreement, to the maximum extent permitted by applicable law, the Custodian's aggregate liability with respect to the Additional Services (whether arising in contract, tort or otherwise) will in no event exceed the annual cap set forth in the applicable Appendix.

(d) Either party may terminate the applicable Appendix for the provision of any or all of the Additional Services upon 90 days' written notice.

(e) In performing the Additional Services, the Custodian may obtain and rely on information provided by the Employer, the applicable Investment Manager, or any of their authorized persons or third parties and shall not be obliged to inquire into the accuracy or completeness of that information.

(f) If any person (other than an affiliate or subcontractor of the Custodian) fails to provide the Custodian with any information or notice that is reasonably required for the provision of the Additional Services, the Custodian shall, once it is aware of such failure, use reasonable efforts to find alternative sources of information. The Custodian shall promptly notify the Employer if such failure or the use of alternative sources of information may materially affect the performance of the Additional Services but shall not otherwise be responsible for any impact that such failure or the use of alternative sources of information has on the Additional Services.

Section 6: Payment of Taxes.

The Custodian shall pay out of the Custodial Account income taxes levied or assessed under existing or future laws against the Custodial Account (including all Plan participant accounts) upon direction by a regulatory authority or agency or the Plan Administrator.

Section 7: Disbursement of Custodial Account Assets.

(a) Upon receipt of written direction of the Employer, Plan Administrator or designee thereof, the Custodian shall make payments from the Custodial Account to such persons in such manner and in such amounts as the Employer or Plan Administrator, as applicable, shall direct in writing, and amounts paid pursuant to such direction shall no longer constitute a part of the Custodial Account. Notwithstanding the foregoing, the Employer or Plan Administrator, as applicable, expressly reserves the right to provide direction directly to Recordkeeper regarding payments of Plan benefits or other disbursements.

(b) Unless the Plan is corporate non-qualified plan, or a Code section 457(b) non-governmental plan, as indicated in the preambles to this Custodial Account Agreement, at no time

prior to the satisfaction of all liabilities with respect to Plan participants and beneficiaries under this Custodial Account shall any part of the corpus or income of the Custodial Account be used for, or diverted to, purposes other than for the exclusive benefit of Plan participants or beneficiaries. If the Plan is a corporate non-qualified plan or a Code section 457(b) non-governmental plan, the availability of the assets held hereunder for purposes other than the benefit of Plan participants or beneficiaries shall be determined in accordance with the terms of the Plan and the terms of any Plan trust for which the assets under this Custody Account are maintained.

Section 8: Expenses and Compensation of Custodian.

The Custodian shall be compensated in accordance with the fee schedule provided to the Employer. If the Custodian proposes an amended written fee schedule and the Employer fails to object thereto within 90 days of its receipt, the amended fee schedule shall be deemed accepted. The Custodian reserves the right to liquidate custodial account assets in satisfaction of its fees hereunder in the event of non-payment by the Employer.

The Employer acknowledges and agrees if the Plan's assets pass through a bank account held by Custodian, it may earn credits and/or interest on Plan assets awaiting investment or pending distribution. Any credits or interest earned by Custodian are aggregated with credits and/or interest earned by its Affiliates and will be used to defray the aggregate expenses for the maintenance of bank accounts. Custodian will not retain credits and/or interest earned in excess of such maintenance expenses.

Credits and/or interest are earned from the use of (i) uninvested contributions received too late in the day or not received in good order to be invested same-day and (ii) proceeds from investment option redemptions where distribution checks have not been presented for payment by participants. Credits and/or interest (i) begin to accrue on contributions, on the date such amounts are deposited into the bank account and end on the date such amounts are invested pursuant to Plan participant or Plan representative instructions and (ii) begin to accrue on distributions, on the date the check is written or on the wire date, as applicable and end on the date the check is presented for payment or when the wire clears again the account, as applicable. Earnings of credits and/or interest are at the rate the bank provides from time to time.

Section 9: Expenses of the Plan and Custodial Account.

The Employer shall pay, or if not paid by the Employer and the Plan so permits, the Employer shall direct the Custodian to pay from the Custodial Account, the reasonable expenses relating to the Plan and Custodial Account that are permitted by law to be paid from the Custodial Account.

Section 10: Reports of the Custodian.

The Custodian has accepted this Custodial Account with the understanding that the Employer or Plan Administrator, as applicable, has entered or is entering into a service agreement with Recordkeeper whereby Recordkeeper will provide recordkeeping services for all Plan assets held pursuant to this Custodial Account Agreement.. The recordkeeping reports will constitute the

reports of the Custodian.

Section 11: Resignation, Removal and Substitution of Custodian.

(a) The Custodian may resign at any time by giving at least 90 days' written notice to the Employer (unless the Employer deems notice of a shorter duration to be adequate). The Employer may remove the Custodian at any time by giving at least 90 days' written notice to the Custodian (unless the Custodian deems notice of a shorter duration to be adequate).

(b) In the event the contract providing a funding medium or providing for recordkeeping services is discontinued or terminated with Recordkeeper, this Custodial Account Agreement shall be terminated as well as of the date of discontinuance or termination of such contract with no further notice required from either party to the other.

(c) If no successor custodian is appointed within 90 days of such written notice of resignation or removal, the current Custodian shall be authorized to petition a court of competent jurisdiction for a declaration appointing a successor custodian and to charge the Custodial Account for the reasonable costs, fees, and expenses of such legal process, or if it so elects, shall remit all assets in its custody to any Plan Trustee(s).

(d) Upon the appointment of a successor custodian, the resigning or removed Custodian shall execute, acknowledge, and deliver all documents and written instruments necessary to transfer and deliver the Custodial Account and all rights and privileges therein to the successor custodian. Upon the appointment of a successor custodian, the resigning and removed Custodian shall be discharged from further accountability for the Custodial Account and shall be under no further duty, obligation or responsibility for the disposition by such successor custodian of the Custodial Account or any part thereof.

Section 12: Amendment and Termination of Custodial Account.

(a) The Employer or Plan Administrator, as applicable, and the Custodian may mutually agree at any time to amend this Custodial Account Agreement and the Custodial Account created hereby to any extent deemed advisable. No amendment to this Custodial Account Agreement shall be effective unless mutually agreed to in writing by the Employer or Plan Administrator, and the Custodian; provided, however, that Custodian's fee schedule may be amended as provided in Section 8.

(b) The Employer or Plan Administrator, as applicable, may at any time revoke this Custodial Account Agreement and terminate the Custodial Account hereby created. Such revocation and termination shall become effective upon receipt by the Custodian or its delegate of a written instrument of such revocation and termination executed by the Employer or Plan Administrator, as applicable. Upon such termination, the Custodian shall distribute or transfer the assets of the Custodial Account pursuant to and upon written direction of the Employer or Plan Administrator, as applicable.

Section 13: Miscellaneous Provisions.

(a) The Custodial Account Agreement and the Custodial Account hereby created

shall be governed, construed, administered and regulated in all respects under the laws of the United States and the State of Colorado.

(b) The titles of the Sections in this Custodial Account Agreement are for convenience of reference only and in case of any conflict, the text of this instrument, rather than such titles, shall control.

(c) In case any provisions of this Custodial Account Agreement shall be held illegal or invalid for any reason, their illegality or invalidity shall not affect the remaining parts of this Custodial Account Agreement, and this Custodial Account Agreement shall be construed and enforced as if the illegal and invalid provisions had never been a part of the Custodial Account Agreement.

(d) This Custodial Account Agreement may be executed in any number of counterparts, each of which shall be deemed an original. The counterparts shall constitute one and the same instrument and may be sufficiently evidenced by any one counterpart.

(e) This Custodial Account Agreement shall be binding upon the respective successors and assigns of the Employer or Plan Administrator, as applicable, and the Custodian.

(f) Neither the gender nor the number (singular or plural) of any word shall be construed to exclude another gender or number when a different gender or number would be appropriate.

(g) Communications to the Custodian shall be sent to the Custodian's address indicated herein. No communication shall be binding upon the Custodian until it is received by the Custodian or its delegate. Communications to the Employer shall be sent to the Employer's principal offices or such address as the Employer may specify in writing.

Great-West Trust Company, LLC
8525 East Orchard Road
Greenwood Village, CO 80111
Attention: Trust Officer

IN WITNESS WHEREOF, this Custodial Account Agreement has been executed on the dates indicated below and is effective on the execution date of the Custodian. The persons executing this Custodial Account Agreement represent that they are duly authorized to do so.

EMPLOYER

BY: _____

ITS: _____

DATE: _____

GREAT-WEST TRUST COMPANY, LLC

BY: _____

ITS: _____

DATE: _____

RESOLUTION No. 6-2020-2

(Duly adopted 8 June 2020)

***A RESOLUTION OF LEHIGH COUNTY AUTHORITY APPROVING A TRUST AGREEMENT
WITH SEI PRIVATE TRUST COMPANY TO APPOINT SEI PRIVATE TRUST COMPANY
AS SUCCESSOR DIRECTED TRUSTEE TO HOLD AND ADMINISTER THE LEHIGH
COUNTY AUTHORITY INTEGRAL PART TRUST.***

WHEREAS, the Lehigh County Authority (the "Authority") has employees rendering valuable services; and

WHEREAS, on February 22, 2010, by Resolution No. 2-2010-2, the Authority adopted a retiree health savings plan (the "Plan") to provide welfare benefits to covered employees and their eligible dependents; and

WHEREAS, the Plan is funded by assets held in the Lehigh County Authority Integral Part Trust (the "Trust") established on March 10, 2010 by the Declaration of Trust of the Lehigh County Integral Part Trust (the "Declaration") with the Authority named as trustee; and

WHEREAS, on April 23, 2010, the Authority entered into an Administrative Services Agreement with the International City Management Association Retirement Corporation ("ICMA-RC") to facilitate the investment administration of the asset management; and

WHEREAS, the Authority wishes to continue the Trust and desires to appoint SEI Private Trust Company, a federal chartered savings association regulated by the Office of the Comptroller of the Currency, ("SEI"), as a successor directed trustee to hold and administer the Trust pursuant to the terms of the Trust Agreement attached hereto.

NOW THEREFORE, be it resolved by the Board of this Authority, as follows:

1. The Board approves the Trust Agreement in the form and substance attached hereto, with such additions or modifications as deemed necessary or appropriate by Authority officials executing the document, which approval shall be conclusively evidenced by the execution thereof.
2. Funds which are a part of the Trust will continue to be contributed to the Trust, which is held for the benefit of the employees and their eligible dependents under and in accordance with the Plan.
3. All Resolutions, or parts of Resolutions, inconsistent with this Resolution are hereby repealed insofar, but only, insofar, as the same are inconsistent herewith.

4. If any section, subsection, sentence, clause or phrase of this Resolution is, for any reason, held to be illegal or unconstitutional, such decision shall not affect the validity of the remaining portions of this Resolution.

On motion of _____, seconded by _____,
this Resolution was adopted the 8th day of June 2020.

Tally of Votes: Yeas _____ Nays _____



I, Michael A. Gaul, Solicitor of Lehigh County Authority, do hereby certify that the foregoing is a true, correct and complete copy of a resolution which was duly adopted by the Authority at a public meeting of the Authority held on 8 June 2020, after notice thereof had been duly given as required by law, at which meeting a quorum was present and voting and which resolution No. 6-2020-2 is now in full force and effect on the date of this certification.

_____ Michael A. Gaul, Esquire Lehigh County Authority Solicitor	_____ Date
--	---------------

Attest:

_____ Lisa A. Miller Executive Administrative Support Specialist	_____ Date
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Declaration of Trust of the Lehigh County Authority Integral Part Trust

THIS TRUST AGREEMENT (the "Agreement") is made and entered into as of _____ by and between the Lehigh County Authority, a local governmental instrumentality under the laws of the Commonwealth of Pennsylvania (the "Employer") and SEI Private Trust Company, a federal chartered savings association regulated by the Office of the Comptroller of the Currency ("SPTC").

WHEREAS, the Employer has heretofore adopted one or more post-retirement welfare benefit plans which are named in Exhibit A attached hereto (the "Plan") the purpose of which is to provide welfare benefits for those employees of the Employer and their eligible dependents covered by the Plan;

WHEREAS, an administrator ("Administrator") has been appointed to administer the Plan and the claims thereunder;

WHEREAS, the Employer established and serves as the trustee under the Declaration of Trust of the Lehigh County Authority Integral Part Trust dated March 10, 2010 (the "Trust") for the exclusive purpose of funding post-retirement welfare benefits for employees and their eligible dependents under and in accordance with the Plan.

WHEREAS, funds which are a part of the Trust and will continue to be contributed to the Trust, which is held for the benefit of the employees and their eligible dependents under and in accordance with the Plan;

WHEREAS, it is an essential function and integral part of the exempt activities of the Employer to assist retirees by making contributions to and accumulating assets in the Trust for post-retirement welfare benefits under the Plan; and

WHEREAS, the Employer wishes to continue the Trust and desires to appoint SPTC as a successor directed trustee to hold and administer the Trust, and SPTC is willing to accept the appointment of successor trustee and to hold and administer such Trust, pursuant to the terms of this Agreement.

NOW, THEREFORE, in consideration of the premises and of the mutual covenants contained herein, the Employer and SPTC agree as follows:

ARTICLE I – RESTATEMENT OF TRUST AND APPOINTMENT OF SUCCESSOR TRUSTEE

1.1 The Trust is hereby amended and restated in its entirety with the terms set forth in this Agreement.

1.2 Employer, acting as the current trustee (“Discharging Trustee”) under the Trust is hereby discharged and SPTC is hereby appointed as the successor directed trustee (SPTC is hereinafter referred to as “Trustee”).

1.3 The Discharging Trustee is directed to immediately transfer the Trust’s assets to Trustee, as will be outlined by the transfer instructions, which will follow upon the execution of this Agreement.

1.4 The parties to this Agreement acknowledge and agree that:

(a) Trustee shall not be liable at any time by reason of, or in consequence of, any acts, omissions or defaults with respect to the administration of the Trust by Discharging Trustee;

(b) Trustee shall be responsible for the administration of such assets only from the date it receives such assets of the Trust delivered to it by and from Discharging Trustee;

(c) Trustee shall have no responsibility to conduct an examination into the acts or omissions of acts of Discharging Trustee; and

(d) Trustee shall have no responsibility to institute, defend or participate in any legal action taken by any parties to or beneficiary of the Trust, current or future, instituted on behalf of the Trust, those parties or beneficiaries. Should Trustee be involved in any such action, all costs will be borne by the Trust.

ARTICLE II - CONTRIBUTIONS

2.1 *Receipt of Contributions.* The Trustee shall receive any contributions paid to it in cash or in the form of such other property as it may from time to time deem acceptable and which shall have been delivered to it. All contributions so received, together with the income therefrom and any other increment thereon shall be held, invested, reinvested and administered by the Trustee pursuant to the terms of this Agreement without distinction between principal and income. The Trustee shall not be responsible for the calculation or collection of any contribution under the Plan, except as required by applicable law, rule or regulation to which the Trustee is subject, but shall be responsible only for property received by it pursuant to this Agreement.

2.2 *Compliance with Laws.* The Plan, this Agreement and the Trust thereunder are intended to meet all of the applicable requirements of federal, state and local laws, statutes and ordinances and applicable statements of the Governmental Accounting Standards Board (“GASB”).).

ARTICLE III - PAYMENTS FROM TRUST

3.1 *Payments Directed by Plan Administrator.* The Trustee shall from time to time at

the Administrator's direction make payments out of the Trust to the persons or entities to whom such monies are to be paid in such amounts and for such purposes as may be specified in the Administrator's directions. To the extent permitted by law, the Trustee shall be under no liability for any payment made pursuant to the direction of the Administrator. Any direction of the Administrator shall constitute a certification that the distribution or payment so directed is one which the Administrator is authorized to direct.

3.2 *Impossibility of Diversion.* It shall be impossible at any time for any part of the Trust to be used for, or diverted to, purposes other than to provide the benefits contemplated under the Plan for the exclusive benefit of covered employees and their dependents, except that any taxes and administration expenses for which the Trust is liable may be made from the Trust as provided for herein. Notwithstanding the foregoing, the Trust may reimburse the Employer for insurance premiums and other payments made by it pursuant to the terms of the Plan. Additionally, upon satisfaction of all liabilities under the Plan, any remaining amount of Employer contributions and earnings thereon shall be returned to the Employer.

ARTICLE IV - INVESTMENTS

4.1 *General.* The Trustee shall invest and reinvest the principal and income of the Trust and keep the Trust invested, without distinction between principal and income, in such securities or in such property, real or personal, tangible or intangible, as directed by the Employer and /or any properly designated investment advisor ("Advisor) or investment manager ("Investment Manager") of the Trust, including but not limited to insurance policies, stocks, common or preferred, trust and participation certificates, interest in investment companies whether so-called "open-end mutual funds" or "closed-end mutual funds," leaseholds, fee titles, bonds, or notes and mortgages, and other evidences of indebtedness or ownership, irrespective of whether such securities or such property shall be of the character authorized by any state law from time to time for trust investments. Trustee reserves its right to reject any investment, including those identified in this paragraph 4.1, that would not comply with Trustee's current standard administrative or operational processes or that deviates from investment products or solutions offered through Trustee or its affiliates.

4.2 *Establishment of Funding Policy.* The Administrator shall, pursuant to the Plan, establish and carry out a funding policy consistent with the purposes of the Plan and the requirements of applicable law, as may be appropriate from time to time. As part of such funding policy, the Administrator shall from time to time direct the Trustee to exercise its investment authority so as to provide sufficient cash assets in an amount determined by the Administrator, Advisor or the Investment Manager, under the funding policy then in effect, to be necessary to meet the liquidity requirements for the administration of the Plan.

4.3 *Trustee's Adherence to Funding Policy.* The Trustee's discretion in investing and reinvesting the principal and income of the Trust, if any, shall be subject to Section 4.4 hereof and the funding policy, and any changes thereof from time to time, as the Administrator may, pursuant to the Plan, adopt from time to time and communicate to the Trustee in writing.

4.4 *Investment Managers or Investment Advisors.* Discretionary authority for the management and control of the assets of the Plan from time to time held in Trust may be retained, allocated or delegated, as the case may be, for one or more purposes, by the Administrator or to and among an Investment Manager(s) or Advisor(s). Employer has entered into a separate application and agreement in its capacity as “Investor” with the Trustee for the provision of custody services and a tri-party agreement between itself, SIMC and appointed Advisor for the provision of investment management services (together the “SEI Agreement”), the terms of which are incorporated herein by reference. To the extent that the terms of the SEI Agreement conflict with the terms of this Agreement, the provisions of this Agreement shall prevail.

4.5 *Representations of the Employer.* The Employer represents and warrants to Trustee the following: (1) there are no Plan documents or instruments that establish limits on the investments in which the Plan may invest which have not been provided to the Trustee; (2) the Employer will provide the Trustee with any updates to any Plan document or instrument within thirty (30) days of the execution of such update; (3) the Employer has identified all persons with authority to instruct the Trustee and has identified all independent fiduciaries, Advisors and Investment Managers and the assets that they control; (4) the Employer shall provide Trustee with thirty (30) days’ notice of a change of any person who has authority to direct the Trustee, or any change in any independent fiduciary, Advisors or Investment Manager (other than SEI Investments Management Corporation (“SIMC”) or portfolio managers selected by SIMC as a part of its investment products); (5) the Plan maintains and follows reasonable procedures for complying with the terms of the Plan, Trust and applicable laws, statutes and ordinances; (6) the Employer shall not issue a direction to the Trustee to act, or not to act, in any manner which would result in a violation of the Plan, Trust or applicable laws, statutes and ordinances ; and (7) the Employer shall provide the Trustee with notification of the following (if applicable to the Employer): (a) any bankruptcy filed by the Employer; or (b) any formal civil or criminal charges filed against the Employer or its officers or directors by either federal, state or local authorities or regulators.

4.6 *Duties of Employer.* It shall be the duty of the Employer, subject to the provisions of the Plan, to pay over to Trustee from time to time its contributions to the Trust as provided in the Plan and to keep accurate books and records with respect to the employees and their compensation. As to any contribution made to the Trust or any investment directed by the Employer that is not in cash, Trustee shall be entitled to request that Employer provide a written representation that such contribution or investment satisfies the applicable requirements of the Plan and applicable federal or state laws or local ordinances.

ARTICLE V - POWERS OF TRUSTEE

5.1 *General Powers.* Without in any way limiting the powers and discretion conferred upon any Advisor or Investment Manager, the Trustee, in addition to all powers and authorities under common law, statutory authority and other provisions of this Agreement, shall have the following powers and authorities with respect to the assets of the Trust subject to its control, and, upon the direction of the Employer, Administrator, Advisor or Investment Manager, as the case

may be, the Trustee shall make, execute, acknowledge and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to enable it to carry out such powers and authorities. In addition to the powers provided under applicable law and this Agreement, Trustee is specifically authorized to exercise its powers either directly or indirectly, through or by any of its affiliates, including but not limited to SEI Investments Company, SEI Investments Distribution Co., and SIMC:

- (a) To purchase, or subscribe for, any securities or other property and to retain the same in trust;
- (b) To sell, exchange, convey, transfer, grant options to purchase, or otherwise dispose of any securities or other property held by the Trustee, by private contract or at public auction, and any sale may be made for cash or upon credit, or partly for cash and partly upon credit. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity, expediency, or propriety of any such sale or other disposition;
- (c) To deliver notices, prospectuses, proxies and other material relating to Plan investments to the Administrator, Advisor or any Investment Manager appointed pursuant to the terms of Section 4.4 above, and to vote upon any stocks, bonds, or other securities solely as directed by the Administrator, Advisor or an Investment Manager, as the case may be; to give general or special proxies or powers of attorney with or without power of substitution; to exercise any conversion privileges, subscription rights, or other options, and to make any payments incidental thereto; to oppose, or to consent to, or otherwise participate in, corporate reorganizations or other changes affecting corporate securities, and to delegate discretionary powers, and to pay any assessments or charges in connection therewith; and generally to exercise any of the powers of an owner with respect to stock, bonds, securities or other property held as part of the Trust;
- (d) To accept and retain for such time as it may deem advisable any securities or other property received or acquired by it as Trustee hereunder, whether or not such securities or other property would normally be purchased as investments hereunder;
- (e) To acquire real estate by purchase, exchange or as the result of any foreclosure, liquidation, or other salvage as the result of any foreclosure, liquidation or other salvage of any investment previously made hereunder; to hold such real estate in such manner and upon such terms as the Trustee may deem advisable; and to manage, operate, repair, develop, improve, partition, mortgage or lease for any term or terms of years any such real estate or any other real estate constituting a part of the Trust, upon such terms and conditions as the Trustee deems proper, using other trust assets for any of such purposes if deemed advisable;
- (f) To invest funds of the Trust in night deposits or savings accounts bearing a reasonable rate of interest in a Trustee's bank;

- (g) To invest in Treasury Bills and other forms of United States government obligations;
- (h) To purchase units or certificates issued by an investment company or pooled trust or comparable entity, including any investment company in which the Trustee or an affiliate of the Trustee may act as investment advisor and/or custodian or any other function permitted by law and for which the Trustee or an affiliate of the Trustee receives a fee;
- (i) To deposit monies in federally insured savings accounts or certificates of deposit in banks or savings and loan associations;
- (j) To transfer money or other property to an insurance company issuing an insurance contract or policy on behalf of the Plan;
- (k) To invest the funds of the Trust in common or collective investment trusts, for which the Trustee, or its affiliate, may act as trustee or investment advisor; and
- (l) To do all such acts, take all such proceedings, and exercise all such rights and privileges, although not specifically mentioned herein, as the Trustee may deem necessary to administer the Trust, and to carry out the purposes of this Trust.

5.2 Additional Powers. In addition, the Trustee is hereby authorized:

- (a) To cause any securities or other property held as part of the Trust to be registered in the Trustee's own name or in the name of one or more of the Trustee's nominees or a nominee of any affiliate, and to hold any investments in bearer form, but the books and records of the Trustee shall at all times show that all such investments are part of the Trust;
- (b) To borrow or raise money for the purposes of the Trust in such amount, and upon such terms and conditions, as the Trustee shall deem advisable; and for any sum so borrowed, to issue a promissory note as Trustee, and to secure the repayment thereof by pledging all, or any part, of the Trust; and no person lending money to the Trustee shall be bound to see to the application of the money lent or to inquire into the validity, expediency, or propriety of any borrowing;
- (c) To keep such portion of the Trust in cash or cash balances as it deems advisable, from time to time, without liability for interest thereon;
- (d) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(e) To settle, compromise, or submit to arbitration any claims, debts, or damages to or owing to or from the Trust, to commence or defend suits or legal or administrative proceedings, and to represent the Trust in all suits and legal and administrative proceedings;

(f) To employ suitable agents, custodian, subcustodians and counsel including but not limited to entities which are affiliates of the Trustee and to pay their reasonable expenses and compensation as expenses of the Trust, which agents or counsel may or may not be agents or counsel for the Employer;

(g) Trustee may: receive credit or other compensation from an affiliate of Trustee for services the Trustee may perform; may exchange services with any affiliate; and if so permitted by the Trust and applicable law, may cause or permit the Trust, or any part of it, to be held, maintained, or managed in accounts or deposits administered in any jurisdiction inside or outside the United States of America; and

(h) To do all such acts, take all such proceedings, and exercise all such rights and privileges, although not specifically mentioned herein, as the Trustee may deem necessary to administer the Trust, and to carry out the purposes of this Trust.

5.3 *Fees and Expenses.* The Trustee may be paid such reasonable compensation in accordance with its standard schedule of charges as shall from time to time agreed upon in writing by the Employer and the Trustee. In addition, the Trustee shall be reimbursed for any reasonable expenses, including reasonable counsel and accounting fees, incurred by the Trustee in the administration of the Trust. In the event that Trustee shall be called upon to render any extraordinary services, it shall be entitled to additional compensation therefore. Such compensation and expenses shall be paid from the Trust unless the Employer elects to pay such compensation and expenses.

5.4 *Demand Deposit Account.* Cash received by Trustee that, due to trading or cash movement deadlines, remains uninvested in the Trustee's demand deposit account ("DDA") may also generate float that Trustee will retain as compensation. The DDA will generally invest in short-term money market instruments or investment funds that receive prevailing market rates for similar types of investments or the DDA may receive fee credits in lieu of interest. The following timelines shall generally apply to transactions of the Trust that require the use of the DDA and may generate float:

(a) Disbursements: Account funds equal to the gross disbursement amount are generally transferred from the Trust to the DDA the next business day if the disbursement request is received by Trustee in good order and by Trustee's established cut-of times. Funds generally remain on deposit in the DDA and may generate float until the payee presents the check for payment or funds are electronically transferred to an account pursuant to the instructions received by Trustee.

(b) Funds Received By Trustee: Funds received by Trustee for the benefit of the Trust are generally invested in the Trust if the funds are received on or before the trade deadlines established by the Trustee. Funds received after the trade deadlines established by Trustee are generally invested in the DDA overnight and are generally invested in the Trust on the next business day.

(c) Exceptions. Exceptions to the manner and timeframes for processing transactions in the Trustee's DDA may include, but are not limited to, electronic or technological failures of any kind, acts of God, nature or war, failure of the authorized representative(s) of the Plan or the Payee to provide written instruction to the Trustee regarding the disposition of the Trust's funds in the DDA, changes in the Trustee's standard operating procedures, or other acts or failures that are outside of the Trustee's control. The Trustee shall furnish upon the Employer's request (but not more frequently than annually), a report that indicates the outstanding checks against the Trust. The Employer shall instruct the Trustee regarding the handling of any outstanding checks against the Trust within a reasonable period of time following receipt of such report. If approved in advance by the Administrator, the Trustee shall also be entitled to reimbursement for reasonable expenses incurred by Trustee hereunder, including fees for professional services. Such compensation and expenses shall be paid directly by the Employer to the Trustee; but in the event of failure to make such payment, the Trustee shall be entitled to retain such compensation out of the Trust itself or the income thereof.

5.5 *Execution and Reporting*. Employer hereby authorizes securities transactions to be effected through or with a registered broker-dealer which may be an affiliate of Trustee. Such transactions may be effected at the direction of the Administrator, or, to the extent authorized by Section 28(e) of the Securities Exchange Act of 1934, as amended, at the direction of individual investment managers. The registered broker-dealer may receive and retain compensation for effecting transactions. Employer will be furnished with monthly statements of transactions and security positions.

ARTICLE VI - TRUSTEE'S DUTIES

6.1 *General*. The Trustee shall discharge its duties under this Agreement solely in the interest of the participants covered under the Plan and their dependents and for the exclusive purpose of providing benefits to such persons and defraying reasonable expenses of administering the Trust, with the care, skill, prudence and diligence under the circumstances then prevailing that a prudent man acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims, and by diversifying the investments of the Trust so as to minimize the risk of large losses, unless under the circumstances it is clearly prudent not to do so, all in accordance with the provisions of this Agreement as may be from time to time amended; but the duties and obligations of the Trustee as such shall be limited to those expressly imposed upon it by this Agreement notwithstanding any reference herein to the Plan, or the provisions thereof, it being hereby expressly agreed that the Trustee is not a party to the Plan.

6.2 *Advice of Counsel; Indemnification.* The Trustee may consult with counsel (who may be counsel for the Employer or for the Trustee in its corporate capacity), and the Trustee shall not be deemed to be imprudent by reason of its taking or refraining from taking any action in accordance with the opinion of counsel. The Employer agrees, to the extent permitted by law, to fully and forever indemnify and hold the Trustee harmless from and against any claims, damages, losses, costs and expenses, including reasonable attorney's fees, that the Trustee may incur in the administration of the Trust, unless arising from the Trustee's own gross negligence or willful breach of the provisions of this Agreement. Such indemnification shall survive the removal or resignation of the Trustee and the termination of this Agreement.

6.3 *Accounts and Records.* The Trustee shall keep accurate and detailed accounts of all investments, receipts, disbursements, and other transactions hereunder as may be required by all applicable laws and regulation and all such accounts and other records relating thereto shall be open to inspection and audit at all reasonable times by any person designated by the Administrator or the Employer. The Trustee shall furnish to the Administrator a written statement of account within 60 days after the end of the Trust's year end setting forth all receipts and disbursements. The Administrator shall acknowledge receipt thereof in writing and advise the Trustee of his approval or disapproval thereof. Failure by the Administrator to disapprove any such statement of account within 30 days after its receipt thereof shall be deemed approval thereof. The approval by the Administrator of the statement of account shall serve to release and discharge the Trustee from any liability or accountability to the Employer as respects the propriety of the Trustee's acts or transactions shown in the statement of account, except with respect to any acts or transactions as to which the Administrator shall file written objections with the Trustee within the 30-day time period prescribed.

6.4 *Limitation on Trustee's Liability.* The Administrator shall administer the Plan as provided therein, and the Trustee shall not be a party to the Plan nor shall it be responsible in any respect for administering the Plan nor shall the Trustee be responsible for the adequacy of contributions to the Trust to meet or discharge any payments or liabilities under the Plan. The Trustee shall be entitled conclusively to rely upon any notice, instruction, direction or other communication of the Administrator and any Advisor or Investment Manager appointed pursuant to Section 4.4 of this Agreement.

ARTICLE VII - RESIGNATION, REMOVAL AND SUCCESSION OF TRUSTEE

7.1 *Resignation.* The Trustee may resign at any time by giving 30 days' notice in writing to the Employer at the address provided herein.

7.2 *Removal.* The Employer may remove the Trustee at any time upon 30 days' notice in writing to the Trustee at the address provided herein.

7.3 *Successor Trustee.* Upon the resignation or removal of the Trustee, the Employer shall appoint a successor trustee who shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon acceptance of such appointment by the successor trustee, the

Trustee shall assign, transfer and pay over to such successor trustee the funds and properties then constituting the Trust. The Trustee is authorized, however, to reserve such reasonable sum of money, as it may deem advisable, for payment of its fees and expenses in connection with the settlement of its account or otherwise, and any balance of such reserve remaining after the payment of such fees and expenses shall be paid over to the successor trustee within a commercially reasonable period of time.

7.4 *Report by Trustee.* Within 60 days after the resignation or removal of the Trustee, the Trustee shall furnish to the Administrator a written statement of account with respect to the portion of the year for which the Trustee served. The Administrator, forthwith upon his receipt of such statement of account, shall acknowledge receipt thereof in writing and advise the Trustee of his approval or disapproval thereof. Failure by the Administrator to disapprove any such statement of account within 30 days after its receipt thereof shall be deemed approval thereof. The approval by the Administrator of the statement of account shall serve to release and discharge the Trustee from any liability or accountability to the Employer as respects the propriety of the Trustee's acts or transactions shown in the statement of account, except with respect to any acts or transactions as to which the Administrator shall file written objections with the Trustee within the 30-day time period prescribed.

7.5 *Waiver of Notice.* In the event of any resignation or removal of the Trustee, the Trustee and the Employer may, in writing, waive any notice of resignation or removal as may be provided hereunder.

ARTICLE VIII - AMENDMENT AND TERMINATION OF AGREEMENT

8.1 *Amendment.* Any or all of the provisions of this Agreement may be amended at any time and from time to time, in whole or in part, by an instrument in writing signed by both parties. No such amendment, unless specifically permitted by the Plan or applicable law, regulation or ordinance, shall authorize or permit any part of the Trust (other than such part as is required to pay taxes and administration expenses) to be used for or diverted to purposes other than for the exclusive benefit of the participants and their dependents and to defray reasonable expenses of the Trust; no such amendment shall cause or permit any portion of the Trust to revert to or become the property of the Employer; and no such amendment which affects the rights or duties of the Trustee may be made without the Trustee's written consent.

8.2 *Termination.* This Agreement may be terminated at any time by the Employer, and upon such termination, or upon the dissolution or liquidation of the Employer, the Trust shall be paid out by the Trustee as and when directed by the Administrator or the Employer, in accordance with the provisions of Article II hereof and the terms of the Plan. Upon satisfaction of all liabilities of the Plan, any remaining amounts shall be returned to the Employer.

ARTICLE IX - GENERAL

9.1 *Anti-Money Laundering Requirements.* The Employer acknowledges that Trustee

prohibits investments by or on behalf of the following persons (each, a “Prohibited Client”): (1) a person whose name appears on the List of Specially Designated Nationals and Blocked Persons maintained by the U.S. Office of Foreign Assets Control (“OFAC”); (2) a foreign shell bank, as defined by the Bank Secrecy Act, as amended by the USA Patriot Act; or (3) a person or entity resident in or whose funds are transferred from or through an account in a Non-Cooperative Country or Territory, as defined by the Financial Action Task Force.

The Employer represents and agrees: (1) that all evidence of identity provided is genuine and all related information furnished is accurate; (2) to provide any information deemed necessary by Trustee in its sole discretion to comply with its anti-money laundering program and related responsibilities from time to time; (3) that the Employer represents and covenants that neither it, nor any person controlling, controlled by, or under common control with, the Employer or the Trust, or any person having a beneficial interest in Trust, is a Prohibited Client and that it is not currently or will not open an account with Trustee on behalf of or for the benefit of any Prohibited Client. The Employer agrees to promptly notify Trustee of any change in information affecting this representation and covenant.

The Employer acknowledges that investments by the Employer may be refused and/or a request for redemption may be delayed or declined if Trustee reasonably believes it does not have satisfactory evidence of the Employer’s or the Trust’s identity.

The Employer acknowledges that, if, following its account opening, Trustee reasonably believes that Employer or the Trust is a Prohibited Client, has otherwise breached its representations and covenants hereunder, or has engaged in a transaction that the Trustee reasonably believes to be suspicious, Trustee may freeze the Employer’s account, prohibit additional investments, decline any redemption requests and/or segregate the assets constituting the investment, redeem or sell the assets, or take any other action reasonably believed to be necessary by Trustee in its sole discretion. Employer shall have no claim against Trustee, or its affiliates, for any damages as a result of the aforementioned actions.

8.9.2 *Prospectus and Disclosure Documents Acknowledgement.* Receipt of a current prospectus or disclosure document for one or more of the mutual funds or other investment accounts sponsored by an affiliate is acknowledged by the parties hereto. It is further acknowledged that Trustee and its affiliates may be additionally compensated by the Trust for services rendered as a service provider, including Adviser, administrator, transfer agent and/or underwriter, and that such compensation is described in further detail in such prospectus or disclosure document and is in addition to compensation received as a Trustee hereunder

9.3 *Source of Funds and Multiple Plans.* This Trust shall constitute the sole source of funds which may be, used to pay the welfare benefits awarded under the Plan, and neither the Employer nor the Trustee shall be liable in any way or in any manner for any such benefits or payments beyond those monies which have been contributed to this Trust. If the Employer adopts more than one plan and designates the Trust as part of such other Plan, the Employer shall be responsible for separately accounting for each separate plan’s interest in the Trust.

9.4 *Limited Effect of Plan and Trust.* Neither the establishment of the Plan nor the Trust nor any modification thereof, nor the creation of any fund or account, nor the payment of any welfare benefits, shall be construed as giving to any person covered under the Plan or other person any legal or equitable right against the Trustee, the Employer or any officer or employee thereof, except as may otherwise be provided in the Plan or in the Trust. Under no circumstances shall the term of employment of any participant be modified or in any way affected by the Plan or this Trust.

9.5 *Protective Clause.* Neither the Employer nor the Trustee shall be responsible for the validity of any contract of insurance issued in connection with the Plan or Trust or for the failure on the part of the insurer to make payments provided by such contract, or for the action of any person which may delay payment or render a contract null and void or unenforceable in whole or in part.

9.6 *Construction of Trust.* This Trust shall be construed and enforced according to the laws of the Commonwealth of Pennsylvania without regard to its choice of laws principles, except as otherwise preempted by applicable federal law. If any provision of this Trust shall be held illegal or invalid for any reason, such determination shall not affect the remaining provisions of the Trust.

9.7 *Tax Exemption.* The Employer represents and warrants that it is a governmental entity exempt from federal income tax under the Internal Revenue Code of 1986 and that the Trust hereunder is also tax exempt.

9.8 *Gender and Number.* Wherever any words are used herein in the masculine, feminine or neuter, they shall be construed as though they were also used in another gender in all cases where they would so apply, and whenever any words are used herein in the singular or plural form, they shall be construed as though they were also used in the other form in all cases where they would so apply.

9.9 *Headings.* The headings and sub-headings of this Trust have been inserted for convenience of reference and are to be ignored in any construction of the provisions hereof.

9.10 *Notice.* Any notice required under this Agreement shall be made to the parties at

the following addresses:

SEI Private Trust Company:
1 Freedom Valley Drive
Oaks, Pennsylvania 19456
Attention: General Counsel

Employer:

IN WITNESS WHEREOF, this Agreement has been executed the day and year first above written.

[EMPLOYER]

[TRUSTEE]

By _____
Name and Title

By _____
Name and Title

ATTEST: _____

ATTEST: _____

TRUST TAX I.D. NUMBER: _____

FORM W-9 By signing this Application, I (we) hereby certify under the penalties of perjury that the information on this Application is complete and correct, and that:

A. The Taxpayer I.D. Number or Social Security Number shown is mine.

B. (If no Taxpayer I.D. Number or Social Security Number has been provided above) I have applied or intend to apply, to the Internal Revenue Service or the Social Security Administration for a Taxpayer I.D. Number or Social Security Number, and I understand that if I do not provide the Number to SEI Private Trust Company within 60 days of the date of this Application, SEI Private Trust Company is required to withhold 20% of all reportable payments thereafter made to me until I provide this number.

C. ☐ If this box is checked, I am subject to backup withholding under the provisions of Section 3506(a)(1) of the Internal Revenue Code of 1986, as amended.

**EXHIBIT A
PLANS**

**Lehigh County Authority Health and Welfare Fund - Suburban Employees and Retirees
Other Post Employment Benefits**

MEMORANDUM

Date: June 8, 2020

To: Lehigh County Authority Board of Directors
From: Charles Volk, Chief Capital Works Officer
Subject: Allentown Division – KIWWTP: Sodium Hypochlorite System Installation Project - Construction Phase

MOTIONS / APPROVALS REQUESTED:

No.	Item	Amount
1	Capital Project Authorization – Construction Phase	\$1,287,196
2 ⁽¹⁾	Professional Services Authorization – D’Huy Engineering, Inc.	\$79,600
3 ⁽¹⁾	General Contract Award – Walabax Construction, Inc.	\$948,850
4 ⁽¹⁾	Electrical Contract Award – Diefenderfer Electric, Inc.	\$168,746

(1) Included in the Capital Project Authorization.

PROJECT BACKGROUND:

Chlorine gas has been used continuously at the Kline’s Island Wastewater Treatment Plant for both effluent disinfection and sludge thickening tank odor control for several decades. As determined by staff and supported by the KIWWTP Master Plan, the chlorination equipment (chlorinators, evaporators, related piping, and appurtenances) has reached the end of its useful service life and requires replacement. Several engineering alternatives to replace the aging chlorine gas system were evaluated by LCA staff and our engineer consultant, D’Huy Engineering, during the pre-design feasibility study phase. The alternatives included ultraviolet (UV) disinfection, on-site sodium hypochlorite (“hypo”) generation and utilization, bulk on-site storage and utilization of sodium hypochlorite, and replacing the gas system “in-kind” with new technology gas equipment. UV disinfection was by far the most expensive, and is not well suited for trickling filter type plants due to effluent turbidity levels typical with this treatment process. On-site generation of hypochlorite was discounted as well due to high capital and high O&M cost.

That left two primary alternatives for consideration – replacing the gas system in-kind with new technology equipment or bulk on-site hypochlorite storage and utilization. Note that conversion to sodium hypochlorite is listed in the KIWWTP Master Plan as a “near term” project (Project Proposal No. 6), which would eliminate the risks associated with chlorine gas disinfection.

The engineer’s opinion of probable construction cost for replacing and maintaining the gaseous chlorine system is \$1,076,560, with an estimated total project cost of \$1,326,000 after accounting for design, staff costs and other soft costs. The operation and maintenance cost based on current chemical supplies and risk management related costs are estimated at \$187,000 per year.

The engineer’s final design opinion of probable construction cost for the bulk hypochlorite system is \$1,070,600 (including alternates, description provided below), with a projected final total project

cost of \$1,407,681 after accounting for design, staff costs and other soft costs. The operation and maintenance cost based on increased chemical supply costs and reduced risk management expenses are \$179,000 per year.

BASIS OF DESIGN AND PROJECT SCOPE

The Project requires that the contractors maintain effluent disinfection and sludge thickening odor control operations during construction via installation of a temporary chlorination system, which will be followed by decommissioning of the existing gas chlorination system. The project scope includes new building addition at the Intermediate Sludge Thickening (IST) pump station, gas system demolition and building modifications in the existing chlorine building, installation of mixers in the existing chlorine contact tank, and installation of hypochlorite storage tanks, chemical feed pumps, and associated chlorination equipment at both locations.

The supply of the chlorine for both chlorination of the plant effluent and control of odor at the gravity thickener tanks is presently based in the Chlorination Building located at the east side of the facility. The proposed conversion away from gaseous chlorine for the plant effluent eliminates the source of chlorine solution for the gravity thickener tanks. Therefore, this created a need for sodium hypochlorite storage and conveyance facilities at the thickener tanks. The concept of pumping a concentrated, highly hazardous substance thousands of feet throughout the facility is not good design practice and presents an unacceptable safety and environmental hazard. These factors were taken into consideration when components of the new sodium hypochlorite facilities at the IST pump station were designed.

The effluent disinfection system hypo storage and conveyance equipment will be installed in the existing Chlorine Building at the location previously occupied by the gas chlorination system. For the Thickener Tank odor control system, the hypo storage tanks and associated conveyance equipment will be installed on the existing concrete slab above the IST pump station subgrade pump room. A new building adjacent to the existing pump station building will be erected on that slab. The building will be fully enclosed with roll-up doors for tank removal. The existing concrete slab at the pump station will require structural support columns and beams installed in the pump room below to accommodate additional loading from the hypo tanks.

The dry scrubber equipment and connecting exhaust ductwork to remove and filter an emergency gas chlorine leak located inside the chlorine building will be removed and abandoned under a general contract alternate item. The unit will be removed in-tact and has significant salvage value.

All components of this project are required in order to meet the project objective of converting the current use of gaseous chlorine to the use of sodium hypochlorite. It is not prudent from any engineering, operational, public health or treatment quality perspectives to divide the project into separate, smaller projects or phase them in any other way – all components of this conversion to sodium hypochlorite are required and must be expertly coordinated in order to provide continuity of service during the project.

FINANCIAL ANALYSIS:

This Project will be funded by the LCA Allentown Division.

By comparing the upfront project costs provided by the Authority's engineering consultants and the anticipated operations and maintenance expense over the 20-year life expectancy of the assets, and total present value analysis was calculated as shown below illustrating a \$32,000 net savings by implementing the bulk sodium hypochlorite system.

SUMMARY TABLE (\$USD)*GASEOUS CHLORINE SYSTEM*

Cost of Upgrading the Gaseous Chlorine System	1,326,000.00
Present Value of Annual O&M costs	<u>2,657,719.42</u>
Total Present Value of Gaseous Chlorine	<u>3,983,719.42</u>

SODIUM HYPOCHLORITE SYSTEM

Cost of Implementing a Sodium Hypochlorite System	1,407,681.00
Present Value of Annual O&M costs	<u>2,544,020.19</u>
Total Present Value of Sodium Hypochlorite	<u>3,951,701.19</u>

NET SAVINGS USING SODIUM HYPOCHLORITE	<u><u>32,018.23</u></u>
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Not calculated in this analysis is the employee and public safety enhancement by removing the gaseous chlorine system from the facility.

PROJECT STATUS:

Design work commenced in 2019 and was completed in early 2020. The project was advertised for bid in February 2020, a pre-bid meeting was held on 3/3/20 at KIWWTP, and bids were received on 4/14/20.

THIS APPROVAL – CONSTRUCTION PHASE:

The contract time for construction phase is 240 days from Notice to Proceed to substantial completion. Assuming construction phase authorization of the 6/8/20 board meeting, construction is anticipated to conclude in early spring 2021.

BIDDING SUMMARY:

Bids were opened on 4/14/20. The project consists of a General Construction (GC) Contract and an Electrical Construction (EC) Contract. Three alternates were included in the general contract for the following items: 1) furnishing and installing two mixers in the chlorine contact tank; 2) demolition of the dry air scrubber in the chlorine building; 3) concrete containment area coating. One alternate was included in the electrical contract for wiring of the mixers. The bid results are summarized below:

GENERAL CONTRACT:

Bidder	Base Bid Results	Bid Total w/ Alternates
Walabax Construction	\$820,500	\$998,500
Michael Ronca & Sons	\$921,000	\$1,117,000
JEV Construction	\$967,000	\$1,147,000
Blooming Glen Contractors	\$1,085,036	\$1,275,791

ELECTRICAL CONTRACT:

Bidder	Base Bid Results	Bid Total w/ Alternates
Diefenderfer Electrical	\$163,276	\$168,746
GS Developers	\$168,694	\$171,094
Phillips Bros.	\$174,522	\$178,722
Eastern Environmental Contractors	\$198,800	\$203,400
G.R. Noto Electrical Construction	\$199,749	\$208,649
A.N. Lynch Co.	\$205,000	\$211,600
BSI	\$208,850	\$214,850
Blooming Glen Contractors	\$258,468	\$262,563

The total of the base bids for both contracts is \$983,776. The total of the low GC and EC base bids plus alternates is \$1,167,246. The final design Engineer's Estimate for the total of the base bids was \$883,500, and for the base bids + alternates the engineer's total estimated project cost was \$1,070,600. A factor that may have influenced the bid prices coming in higher than the engineer's final design estimate is uncertainty regarding required provisions and supply chain complications associated with the current pandemic crisis.

The low bidder for the General Contract, Walabax Construction Inc. (Walabax), is based in Perkasio, PA and has significant similar experience in water and wastewater facility mechanical construction projects in eastern PA. Walabax is currently the General Contractor for the Wynnewood WWTP Upgrade Project and the project performance has been satisfactory. We have reviewed the project references provided with the bid and Walabax appears well qualified to complete this project. The documents submitted with the bid are complete and in accordance with the bidding requirements. Based upon the review of the bids, we recommend award of the General Contract to Walabax, subject to the receipt of the necessary bonds, insurance and other required documentation.

The low bidder for the Electrical Contract is Diefenderfer Electric (Diefenderfer) based in Allentown, PA. The company has significant similar project experience with water and wastewater facility electrical systems, including two completed projects at KIWWTP (2016 Dewatering MCC Replacement and 2017 Digester Cover Replacement) and one completed electrical contract in SD within the last 5 years. We have reviewed the project references provided with the bid and Diefenderfer appears well qualified to complete this project. The documents submitted with the bid are complete and in accordance with the bidding requirements. Based upon the review of the bids, we recommend award of the Electrical Construction contract to Diefenderfer, subject to the receipt of the necessary bonds, insurance and other required documentation.

LCA is requesting authorization of the base bid General Contract plus two alternates for: 1) the mixers (priced at \$127,200), and 2) removal of the abandoned scrubber equipment (priced at \$1,150). We are also requesting authorization of Electrical Contract base bid plus alternate to wire the mixers and associated controls (priced at \$5,470). LCA is not recommending award of the General Contract alternate for the concrete containment area coating system (priced at \$49,650); we feel that cost is excessive and will pursue more economical coating options during construction.

PROFESSIONAL SERVICES:

D'Huy Engineering has been our design consultant on this project and will provide construction engineering services for the construction phase of the project. Their work will include:

1. Facilitate completion of the Agreement and other elements of the Contract with LCA.
2. Prepare for, attend and facilitate a pre-construction conference.
3. Prepare for and attend two job conference meetings.
4. Review and approve contractor's submittals. 36 discrete shop drawing submittals have been identified in the Contract Documents for this project.
5. Respond to Contractor requests for information (RFIs).
6. Process applications for payment and any necessary change orders.
7. Provide part-time construction observation over an estimated 30-week onsite construction period
8. Prepare punch list, final project close-out and certify final payment to contractors.

PROJECT SCHEDULE:

Based on construction phase authorization on 6/8/20, the project should be completed in early spring 2021.

FUTURE AUTHORIZATIONS: *none*

CAPITAL PROJECT AUTHORIZATION

PROJECT NO.: AD-S-A **BUDGET FUND:** Allentown Div\Wastewater\Capital

PROJECT TITLE: Allentown Division –KIWWTP Sodium Hypochlorite System Installation Project **PROJECT TYPE:**

☒ Construction
☐ Engineering Study
☐ Equipment Purchase

THIS AUTHORIZATION \$ 1,287,196
TO DATE (W/ABOVE) \$ 1,407,681

DESCRIPTION AND BENEFITS:

The scope of this project consists of the demolition and removal of the gas chlorination system at KIWWTP and the construction of building modifications and equipment installation to provide a sodium hypochlorite system for effluent disinfection and a sodium hypochlorite system for sludge thickening tanks odor control. Implementation of hypochlorite disinfection will eliminate serious health and safety concerns with gas chlorination, and replace gas chlorination equipment identified in the Master Plan to be at the end of its service life.

Previous Authorizations	
Design and Bid Phase	\$120,485

REQUESTED THIS AUTHORIZATION	
Construction Phase	
General Construction Contract Base Bid + Mixers + scrubber demo alternates – Walabax Constrction, Inc.	\$948,850
Electrical Construction Contract Base Bid + Mixers wiring alternate - Diefenderfer Electric, Inc.	\$168,746
Professional Services:	
Construction Administration/Engineering – D’Huy Engineering	\$79,600
Staff	\$40,000
Contingency	\$50,000
Total This Authorization	\$1,287,196

Total Estimated Project	\$1,407,681
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REVIEW AND APPROVALS:

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



Lehigh County Authority

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

PROFESSIONAL SERVICES AUTHORIZATION

Professional: D;HUY ENGINEERING, INC.
One East Broad St., Suite 310
Bethlehem, PA 18018

Date: June 8, 2020

Requested By: Charles Volk, P.E.

Approvals

Department Head: _____

Chief Executive

Officer: _____

Allentown Division – KIWWTP Sodium Hypochlorite System Installation, Construction Phase

D'Huy Engineering, Inc. will perform construction administration and engineering support services for the Sodium Hypochlorite System Installation project. Professional services will include the following:

Professional Services ⁽¹⁾
1. Pre-construction meeting coordination, attendance and follow-up
2. Prepare for and attend job conferences
3. Review and approve contractor submittals
4. Respond to Requests for Information (RFIs) from contractor
5. Process payment applications
6. Process change orders as required
7. Provide part-time construction observation
8. Substantial completion inspection & punchlist preparation
9. Contract closeout administration

(1) Reference the cover Memo for additional information.

Cost Estimate (not to be exceeded without further authorization): \$79,600

Time Table and Completion Deadline: As required to meet deadlines as set forth in the construction contract.

(For Authority Use Only)

Authorization Completion:

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

MEMORANDUM

Date: June 3, 2020

To: LCA Board
From: John Parsons
Subject: Park Pump Station - Force Main
Bypass Trials and Initial Inspection

MOTIONS / APPROVALS REQUESTED:

No.	Item	Amount
1	Capital Project Authorization – Condition Assessment	\$98,000
2 ⁽¹⁾	Professional Services Authorization – Arcadis, Inc.	\$63,000

(1) Included in the Capital Project Authorization.

PROJECT OVERVIEW:

The Park Pump Station (PPS) Force Main (FM) is 40 years old and it is not even ½ way to its expected lifespan. Due to its composition and periodic usage which allows air pockets to develop, the FM may have developed significant loss to the internal mortar coating and/or the external steel shell. This project will be aimed at initial inspections over select areas of the FM to see if a full-scale evaluation of the entire FM is warranted.

The LCA Flow Equalization Basin (FEB) will be used to hold back flows to allow for the FM to be turned off during the inspections. Since there is a several hour time delay between flows making their way from the FEB to the PPS, trials will need to be run in advance to determine the exact schedule that will be needed during the inspection days.

The initial inspection project will consist of: PPS Shutdown Trial Runs, FM Initial Inspection Planning, and FM Initial Internal Inspections. Based on the evaluations, a report will be generated that will provide findings and recommendations for moving forward to the next phase.

FINANCIAL:

For 2020, there is \$100,000 budgeted for such work in CIP 30489, Park Pump Station Force Main Upgrade. This Capital Project is being funded by the Suburban Division.

PROJECT SCHEDULE: The bypass trials and initial inspections are scheduled for mid-late summer, 2020. Depending on the results and recommendations of this project, a decision will be made as to whether or not the entire force main will be evaluated. If required, that work would be done in 2021.

FUTURE AUTHORIZATIONS-

1. Full-scale FM evaluation, if required.
2. Construction Phase, if required.

CAPITAL PROJECT AUTHORIZATION

PROJECT NO.:	<u>SD-S-20-1</u>	BUDGET FUND:	<u>Suburban Div\Wastewater\Capital</u>
PROJECT TITLE:	<u>Park Pump Station Force Main Bypass Trials and Initial Inspection</u>	PROJECT TYPE:	<input type="checkbox"/> Construction <input checked="" type="checkbox"/> Engineering Study <input type="checkbox"/> Equipment Purchase <input type="checkbox"/>
THIS AUTHORIZATION:	<u>\$98,000</u>		
TO DATE (W/ ABOVE)	<u>\$0</u>		

DESCRIPTION AND BENEFITS:

The Park Pump Station (PPS) Force Main (FM) is 40 years old and it is not even ½ way to its expected lifespan. Due to its composition and periodic usage which allows air pockets to develop, the FM may have developed significant loss to the internal mortar coating and/or the external steel shell. This project will be aimed at initial inspections over select areas of the FM to see if a full-scale evaluation of the entire FM is warranted.

The LCA Flow Equalization Basin (FEB) will be used to hold back flows to allow for the FM to be turned off during the inspections. Since there is a several hour time delay between flows making their way from the FEB to the PPS, trials will need to be run in advance to determine the exact schedule that will be needed during the inspection days.

The initial inspection project will consist of: PPS Shutdown Trial Runs, FM Initial Inspection Planning, and FM Initial Internal Inspections. Based on the evaluations, a report will be generated that will provide findings and recommendations for moving forward to the next phase.

Previous Authorizations	
None	\$0

Requested This Authorization	
Initial Trials and Inspection	
Staff	\$10,000
Engineering Consultant	\$63,000
Contractor	\$20,000
Contingency	\$5,000
Total This Authorization	\$98,000

Future Authorizations	
Dependent on Project Findings	\$

REVIEW AND APPROVALS:

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



Lehigh County Authority

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

PROFESSIONAL SERVICES AUTHORIZATION

Professional: ARCADIS US INC.
1128 Walnut St, 4th Floor
Philadelphia, PA 19107

Date: June 3, 2020

Requested By: John Parsons

Approvals

Department Head: _____

Chief Executive

Officer: _____

Park Pump Station (PPS) – Force Main (FM) Bypass Trials and Initial Inspection

This Authorization \$63,000

The PPS FM is currently 40 years old and is expected to be operational for the next 50 years. The FM is made of precast concrete cylinder pipe (PCCP), which is highly susceptible to corrosion. Between its material, age, and periodic use allowing air pockets to develop, the PCCP may have significant loss of the internal cement mortar coating and the external steel shell. This project will allow for an initial condition assessment of the FM to determine if a full inspection of the entire alignment is warranted.

Professional Services
1. PPS Shutdown Trials
2. FM Inspection Planning
3. Develop a Health and Safety Plan for all Confined Entry work
4. FM Internal Inspection
5. Analysis and Recommendations

Future Authorizations – Depending on the findings of the preliminary inspection, a full scale inspection of the entire alignment may become necessary. If that happens, another PSA will be provided.

Cost Estimate (not to be exceeded without further authorization): \$63,000

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:** _____



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MEMORANDUM

Date: June 8, 2020

To: Lehigh County Authority Board of Directors

From: Charles Volk, P.E., Chief Capital Works Officer

Subject: Suburban Division – Western Lehigh Interceptor Manhole Rehabilitation Project (Phase 1)

MOTIONS /APPROVALS REQUESTED:

No.	Item	Amount
1	<u>Capital Project Authorization – Construction Phase</u>	\$130,150
2	<u>Contract Award (construction):</u>	\$104,550
*	General Construction – Standard Pipe Services, LLC	
3	<u>Professional Services Authorization:</u>	\$8,150
*	<u>Construction Inspection – Keystone Consulting Engineers</u>	

() Included in the Capital Project Authorization*

PROJECT BACKGROUND:

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

PROJECT OVERVIEW:

An inspection of WLI manholes was performed by Arcadis in 2015, and manholes with active and potential leaks were identified. Capital Works and Arcadis performed an updated inspection of key manholes along the WLI in late 2019 and identified numerous deficiencies including:

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

- Interior joint and pipe leakage.

The rehabilitation work proposed in this project includes the following:

- Raise manhole tops to at or above the floodplain elevation (up to 2' elevation adjustment) and repair concrete– 6 each
- Install new water-tight frames and covers – 39 each
- Injection grout cracks and leaks – 11 each

The work to be performed as part of this project should have a positive impact on reducing infiltration and inflow from manholes and help mitigate sanitary sewer overflows in the Western Lehigh Interceptor service area.

FINANCIAL:

The Project will be funded by the LCA Suburban Division.

PROJECT STATUS

Design was completed in early Spring and the project was advertised for bid in April 2020. Bids were opened on 5/12/20. The bids were reviewed by Capital Works staff.

THIS APPROVAL: Construction Phase

BIDS

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

Table 1 – Bid Results	
Construction Phase	
Contractor	Total Bid Amount
Standard Pipe Services, LLC (SPS)	\$104,550
PIM Construction	\$138,925
Anrich, Inc.	\$182,400
Joao & Bradley Construction Co., Inc.	\$221,550

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 similar work for LCA's Lynn Township wastewater collection system. SPS was recently awarded a sewer main internal lining project in the City of Allentown, which is set to begin shortly. The contractor is well qualified to perform the scope of work and the bid documents are complete. Capital Works recommends award of the WLI Manhole Rehabilitation Project to SPS.

MATERIAL PROCUREMENT: N/A

PROFESSIONAL SERVICES :

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

- Provide part time inspection services
- Prepare daily inspection reports
- Verify daily job quantities

- Document installation (post construction photos)
- Attend progress meetings as required
- Prepare and verify punchlist completion

SCHEDULE

Assuming approval at the June 8, 2020 board meeting, the work is anticipated to be started in July and will be completed by early fall.

FUTURE AUTHORIZATIONS

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

CAPITAL PROJECT AUTHORIZATION

PROJECT NO.:	<u>SD-S-3</u>	BUDGET FUND:	<u>Suburban Div\Wastewater\Capital</u>
PROJECT TITLE:	<u>Suburban Division – Western Lehigh Interceptor Manhole Rehabilitation Project (Phase 1)</u>	PROJECT TYPE:	<input checked="" type="checkbox"/> Construction <input type="checkbox"/> Engineering Study <input type="checkbox"/> Equipment Purchase <input type="checkbox"/> Amendment
THIS AUTHORIZATION:	<u>\$130,150</u>		
TO DATE (W/ ABOVE)	<u>\$169,000</u>		

DESCRIPTION AND BENEFITS:

WLI Manhole Rehabilitation Project:

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

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

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

Previous Authorizations	
Design Phase - Arcadis	\$39,000

REQUESTED THIS AUTHORIZATION	
Construction Phase	
Construction Contract – Standard Pipe Services, LLC	\$104,550
Construction Inspection Services – Keystone Consulting Engineers	\$8,150
Staff	\$7,500
Contingency	\$10,000
Total This Authorization	\$130,150

Future Authorization	
Phase 2 WLI manhole rehabilitation project	TBD

REVIEW AND APPROVALS:

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



Lehigh County Authority

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(610)398-2503 * FAX (610)398-8413 * Email: service@lehighcountyauthority.org

PROFESSIONAL SERVICES AUTHORIZATION

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

Date: June 8, 2020

Requested By: Charles Volk

Approvals

Department Head: _____

Chief Executive

Officer: _____

Description of Services:

WLI Manhole Rehabilitation Project: Construction Inspection Services

Keystone Consulting Engineers, Inc. will perform construction phase inspection services for the construction of the WLI Manhole Rehabilitation Project, in accordance with their proposal dated May 13, 2020. The scope of services includes the following:

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

Cost Estimate (not to be exceeded without further authorization): \$8,150

Time Table and Completion Deadline: Assumes work will be substantially complete by Fall 2020.

(For Authority Use Only)

Authorization Completion:

Approval: _____ Actual Cost: _____ Date: _____

FINANCE & ADMINISTRATION

ACTION ITEMS

1. LCA 457(b) Plan & OPEB Trust Administrators (Resolutions 6-2020-1 & 6-2020-2) – June 8, 2020

Approval from the Board is being requested to effect a change in the management of the OPEB / 457 Plan from current firm (ICMARC). The change will provide more transparency of the fund administration and will provide improved investment opportunities for the employees.

2. 2019 Audit & Financial Statements – June 22, 2020

The 2019 Audited Financial Statements and accompanying Operating Data Tables have been delayed due to the COVID-19 pandemic and notice of delay has been sent to appropriate parties. The statements were completed by May 30, 2020. In June, staff will present the financial statements to the Board for review and acceptance.

DISCUSSION ITEMS

INFORMATION ITEMS

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

CERTIFICATES OF DEPOSIT						
28-Apr-20						
Fund	Bank	Location	Gross Amount	Date of Purchase	Date Due	Net Rate %
LLRI CR	PSDLAF Flex Pool		400,000.00	3/31/20	5/20/20	0.1
Cons Wtr (2)	PSDLAF Flex Pool		155,000.00	3/31/20	5/20/20	0.1
Cons LL2 (314)	PSDLAF Flex Pool		245,000.00	3/31/20	5/20/20	0.1
WW Capac	PSDLAF Flex Pool		600,000.00	3/31/20	5/20/20	0.1
Wtr R&R	PSDLAF Flex Pool		1,000,000.00	3/31/20	5/20/20	0.1

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, UMiT & Emmaus

Kohler Tract, 123 residential lots (sfa), water and sewer, UMiIT
Ridings at Parkland, 53 residential units (sfd), NWT-NEW

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
Jaendl 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
Mill Creek Hotel, 1 commercial lot with 205 room hotel & restaurant, UMT
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:

1047 Cetronia Road, UMT, 1,561 gpd.
The Townes at Jordan, Allentown, 6,902 gpd.

WATER

ACTION ITEM

1. **Allentown Division – Emergency Declaration – Water Main Break at 17th & Sumner Streets – June 22, 2020**

There was a 12" water main break at North 17th Street and Washington Street on 5/17/2020. There was extensive street and curb damages as a result. LCA Staff will request a Retroactive Emergency Declaration for this work at the 6/22/2020 Board Meeting.

2. **Suburban Division - Additional (Redundant) Water Supply - Small Satellite Divisions – June 22, 2020**

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 spring. 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 for aquifer testing of the proposed well as per the combined Pre-Drilling and Aquifer Test Plan that was approved by DEP is to be requested at the June 22, 2020 Board meeting.

DISCUSSION ITEMS

INFORMATION ITEMS

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

As part of the Pennsylvania Rapid Bridge Replacement Program, the replacement of the Cedar Creek Bridge on Hamilton Street has required the relocation of approximately 500 linear feet of water main. The design phase was approved at the December 2016 Board meeting and the construction phase at the January 2018 meeting. As of February 22, 2018, the contractor completed a majority of the relocation work for LCA's facilities; however, they were pulled off the site due to construction conflicts. As of March 22, 2019 the original LCA water line relocation scope of work was completed, however an additional relocation of a LCA sanitary sewer line was added to the original scope and agreement as of April 15, 2019 with an anticipated completion of April 26, 2019. LCA anticipates submitting all final paper work to the state for reimbursement in the very near future when the project has reached 100% completion. As of November 27, 2019 the project is still under construction due to delays caused by environmental timelines to preserve the high quality clear water fishery. It is anticipated that this work will be reimbursed 100% by the state and that the construction related activities. As of February 2020, the LCA utility relocation portion of this project is 100% complete; total project is approximately 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.

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 by early summer 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.

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 Al 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 5% complete. Work had been suspended due to the Covid-19 virus but resumed the last week of May.

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)**

WASTEWATER**ACTION ITEMS**

1. Allentown Division – Kline’s Island WWTP: Sodium Hypochlorite System Installation Project – Construction Phase Approval – June 8, 2020

This project involves the replacement of the existing gaseous chlorination system at the Kline’s Island Wastewater Treatment Plant (KIWWTP). The use of gaseous chlorine for effluent disinfection, while reliable, is outdated and creates significant public health and employee safety risks. In addition, the existing equipment has reached the end of its useful life. The 2018 KIWWTP Master Plan recommended abandoning gaseous chlorine and switching to (liquid) sodium hypochlorite. The design commenced in March of 2019 and was completed in early 2020. The project was advertised for bid in February 2020, a pre-bid meeting was held at KIWWTP in early March and bids were opened on 4/14/20. Construction phase authorization will be requested at the 6/8/2020 Board meeting and the project is anticipated to be completed in the first quarter of 2021. The project will be funded by the LCA Allentown Division.

2. Suburban Division – Park Pump Station (PPS): Force Main Bypass Trials and Initial Inspection – Arcadis Professional Services Agreement – June 8, 2020

The Park Pump Station Force Main is approximately 40 years old and is expected to be used for multiple decades into the future. The Force Main (FM) is made out of precast concrete cylinder pipe (PCCP), which is susceptible to corrosion of the interior mortar coating as well as the external steel shell. Using the LCA Flow Equalization Basin to retain peak flows, there should be adequate time to dewater, clean and inspect the FM through several of the air release valves. Before that can be done, trial evaluations of the potential shutdown durations will need to be made in order to plan the inspection process. Working with LCA and Jacobs staff, Arcadis will determine how long the PPS can be taken off-line by conducting field trials. Based on the results of that analysis, an inspection program will be developed for the FM evaluation. This project is expected to occur during the summer of 2020. Approval of the PSA will be requested at the 6/8/2020 LCA Board Meeting. This project will be funded by the LCA Suburban Division.

3. Suburban Division – Western Lehigh Manhole Rehabilitation Project – June 8, 2020

This project involves the rehabilitation of key manholes in the Western Lehigh Interceptor service area. The project includes flood-proofing, interior pipe connection grouting, exterior concrete work and sealing of manholes, particularly those manholes that are in close proximity to the floodway and experience floodwater inundation. The purpose of the project is to eliminate floodwater inflow into the system. The project scope includes approximately 50 manholes to be rehabilitated in 2020 as part of a phased manhole rehabilitation program. The project was advertised for bid in April 2020, bids were opened on 5/12/20, and construction phase authorization is to be requested at the 6/8/20 Board meeting. Construction will be completed by the end of 2020.

4. Suburban Division – Heidelberg Heights Consent Order & Agreement (Resolution No. 6-2020-3) – June 22, 2020

As discussed with the LCA Board during several meetings in 2018 and 2019, 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. This has resulted in numerous bypass events over the last several years, and related permit violations. Several projects have been completed to address I&I in this system, but more work is required. LCA staff met with DEP officials in March 2019 to discuss the problems and, as a result, LCA prepared a comprehensive Corrective Action Plan (CAP) and submitted DEP in May 2019. A Consent Order & Agreement (CO&A) was proposed by DEP and discussed over the past several months, which incorporates

the projects and schedule outlined in LCA's proposed CAP. The CO&A must be approved by Resolution of the LCA Board, which will be presented for discussion and approval in June 2020. Due to the COVID-19 Pandemic Emergency, DEP and LCA have agreed that the planned 2020 rehabilitation project deadline be extended to June 2021 to support obtaining more cost-effective construction bids.

5. **Suburban Division – Asset Management Upgrade Project – Construction Phase – June 22, 2020**

This third phase of the Suburban Division Asset Management upgrade program consists of the replacement of the roof at the Spring Creek Pump Station main control building. The original roof at the station control building has deteriorated and developed leaks that threaten to damage interior electrical components, and our engineer consultant (D'Huy Engineering) has recommended removal of the existing roof system down to the decking and replacement of the roof. Design phase commenced in early 2020, and the project was advertised for bid in late May 2020. Bids will be opened 6/10/20 and construction phase authorization will be requested at the 6/22/20 Board meeting.

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 late 2020 or 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. **(No Change)**

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

As part of the Pennsylvania Rapid Bridge Replacement Program, the proposed replacement of the Lehigh Street Bridge near the intersection with MLK Boulevard has required the relocation of existing City water and sewer lines that are located within the PennDOT right of way. Because the bridge is owned by Lehigh County and not the Commonwealth, the normal PennDOT relocation reimbursement schedules do not apply. Therefore, the County and LCA have executed an agreement on cost reimbursement on similar terms. LCA's engineer is working on behalf of LCA on a final sewer relocation design that minimizes the extent of the relocation. There will be less water infrastructure relocation work required since the existing

water main is attached under the bridge and will be reattached after the new bridge is constructed. Construction will commence in 2021. **(No Change)**

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

This project includes the design of the City of Allentown's I&I Source Reduction Program Plan. In 2014, Video Pipe Services complete various CCTV inspections throughout twenty Primary and Secondary Basins. All pipe segments that called for complete pipe replacement have already been repaired. The remaining source reduction activities within the twenty Basins have been organized into a 5-Year Plan, with each year focusing on a different geographic region of the City's sewer collection system. Design has been approved for all five years, with the first project commencing in 2020 and the last project finishing in 2024. Board approval for the construction phase of the "Year 1 Project" was granted at the March 9, 2020 Board Meeting. This project is commenced in early May 2020 and will be finished by 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 May 2020, the Interim 537 Draft is 100% completed and was delivered to sixteen planning commissions on 3/16/2020. Planning commission meetings are occurring and public advertisement will occur on 6/10/20.

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

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

7. **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 May 2020, all temporary flow meters and rain gauges for the 2020 program have been installed (data collection is 40% 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 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. See Action Item number 2 above for information on this initial inspection work. Using this data, the need for performing a complete pipeline condition assessment will be determined.

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 Spring 2020. Construction is approximately 90% 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. A letter is forthcoming from DEP to grant 55 EDUs of sewer allocation relief in 2020. **(No Change)**

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, which incorporates the projects and schedule outlined in LCA's proposed CAP (see above action item). **(No Change)**

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)**

16. Suburban Division – Lynn Township Manhole Rehabilitation Project - July TBD

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 with bid opening in late June, and construction phase authorization to be requested in July. Construction will be completed by the end of 2020.