



BOARD MEETING AGENDA – August 13, 2018

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

- *July 23, 2018 Board meeting minutes*

4. Public Comments

5. Action / Discussion Items:

FINANCE AND ADMINISTRATION

WATER

- *Allentown Division – Water Main Replacement Program Cycle 4 (grey)*

WASTEWATER

- *Suburban Division – Spring Creek Force Main Air Release Valve Replacement – Bid Rejection (pink)*

6. Monthly Project Updates / Information Items (1st Board meeting per month) – **August 2018 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.

August 27, 2018

September 10, 2018

September 24, 2018

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

July 23, 2018

The Regular Meeting of the Lehigh County Authority was called to order at 12:00 p.m. on Monday, July 23, 2018, Vice Chairman Scott Bieber presiding. Other Members present at the commencement of the meeting were: Linda Rosenfeld, Kevin Baker, Jeff Morgan, Norman Cusick, Ted Lyons, and Deana Zosky. Brian Nagle was on the conference phone for the duration of the meeting and voted on Authority business. Authority Staff present were Liesel Gross, Brad Landon, Charles Volk, John Parsons, Chris Moughan, Susan Sampson, Pat Mandes, Ed Klein, Jason Peters, and Lisa Miller.

REVIEW OF AGENDA

Vice Chairman Bieber announced that today's Board meeting is being videotaped and streaming live and recordings will be posted to the Authority's website.

Liesel Gross stated there are no changes to the agenda but suggested going through it to be sure everyone has all the correct paperwork due to the revised agenda and a few addendum items that were added. There will also be an Executive Session at the end of the meeting to discuss matters of potential litigation.

APPROVAL OF MINUTES

July 9, 2018 Regular Meeting Minutes

On a motion by Norma Cusick, seconded by Jeff Morgan, the Board approved the Minutes of the July 9, 2018 meeting (7-0). Kevin Baker abstained.

PUBLIC COMMENTS

None.

ACTION AND DISCUSSION ITEMS

2017 Audit and Financial Statements

Ed Klein noted that the Board had previously received a printed copy of the Comprehensive Annual Financial Report (CAFR) which is the same as what was posted electronically in the Board packet. Mike Sampson and Nate Schwartz were present from Zelenkofske Axelrod LLC to discuss and give an overview of the Financial Statements. Mike Sampson explained that with the 2017 adoption of GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, which resulted in adding new disclosures to the financial statements and also adding three additional schedules, caused a delay in receiving the financial statements from the actuary. This in turn delayed completion of the audit. Next year, GASB 75, which changes employer reporting, will need to be adopted.

Deana Zosky commented she would like to see financial statements using actual vs. budget numbers which is a much simpler process and fully aligned with an audited financial statement and monthly closing financial statements. Ms. Zosky also stated she has numerous questions and comments and would like to meet with Liesel and Ed, and possibly the auditors, after the meeting for more in depth discussion regarding the financial statements.

Ms. Zosky stated that rates need to increase to a level of profitability in order to move towards sustainability. Ms. Zosky also stated that the supplemental schedules could be very helpful to illustrate reversal of negative trends. She provided numerous references to supplemental schedules where further analysis would provide greater detail and understanding of historical trends and future strategies to address financial sustainability goals. She also expressed significant concerns about the high level of debt within the City Division and that the financial statements do not illustrate adequate operating income to support debt payments that will total \$807 million organization-wide.

Mssrs. Sampson and Schwartz answered a series of questions and discussion from Board members.

Liesel Gross suggested scheduling a Finance Committee meeting to set the agenda for additional discussion on the financial statements. The Board agreed and asked Lisa Miller to set up a meeting. The Board confirmed the Finance Committee members are Ted Lyons, Kevin Baker and Linda Rosenfeld, with Deana Zosky serving in an ad hoc position on the committee.

Suburban Division – CLD Auxiliary Pump Station Project

Chuck Volk gave an overview of the project that will construct a pump station on Werley Road in Upper Macungie Township and allow the conveyance of water from the lower system to the upper system of the Central Lehigh Division, providing greater operational flexibility and capacity for new development that is occurring in the upper system.

Mr. Volk asked for approval of the Capital Project Authorization, Amendment No. 2 of the Construction Phase in the amount of \$1,635,780.00 that includes the Professional Services Authorizations – Construction Phase for Construction Engineering Services; Amendment No. 1 to Johnson, Mirmiran & Thompson, Inc. in the amount of \$35,220.00; the Construction Inspection Services to Cowan Associates in the amount of \$16,427.00; the SCADA, Amendment No. 1 to Aptus Control Systems in the amount of \$61,568.00; the Contract Award – Construction Phase for General Construction to Blooming Glen Contractors WW in the amount of \$1,020,190.00; and the Electrical Construction to Albarell Electric in the amount of \$212,000.00.

Kevin Baker questioned the status of the project in terms of the budget. Chuck Volk stated the project will not be complete in 2018 due to delays in obtaining easements and required permitting. The project is budgeted with funding available in 2018, but some of the project costs will be billed in 2019.

On a motion by Norma Cusick, seconded by Linda Rosenfeld, the Board approved the Capital Project Authorization, Amendment No. 2 of the Construction Phase in the amount of \$1,635,780.00, which includes the Professional Services Authorizations – Construction Phase for Construction Engineering Services; Amendment No. 1 to Johnson, Mirmiran & Thompson, Inc. in the amount of \$35,220.00; the Construction Inspection Services to Cowan Associates in the amount of \$16,427.00; the SCADA, Amendment No. 1 to Aptus Control Systems in the amount of \$61,568.00 ; the Contract Award – Construction Phase for General Construction to Blooming Glen Contractors WW in the amount of \$1,020,190.00; and the Electrical Construction to Albarell Electric in the amount of \$212,000.00 (8-0).

Suburban Division – Water Main Replacement Program Cycle 4

Jason Peters gave an overview of the project that will replace approximately one mile of pipe necessary to address aging infrastructure, prevent excessive leakage and disruption to customers.

Mr. Peters asked for approval of the Capital Project Authorization Construction Phase Cycle 4 in the amount of \$2,013,635.00 that includes the Professional Services Authorization Cycle 4 for Construction Engineering and Managements Services; Amendment No. 1 to Gannett Fleming Inc. in the amount of \$47,400.00; Construction Inspection Services to Keystone Consulting Engineers in the amount of \$75,000.00; and Contract Award Cycle 4 General Construction to Joao & Bradley Construction Co., Inc. in the amount of \$1,635,235.00.

The majority of the project will be in the Clearview Manor development of Lower Macungie Township using 8" pipe. The project is estimated for completion by November 1, 2018.

On a motion by Norma Cusick, seconded by Jeff Morgan, the Board approved the Capital Project Authorization Construction Phase Cycle 4 in the amount of \$2,013,635.00 that includes the Professional Services Authorization Cycle 4 for Construction Engineering and Managements Services; Amendment No. 1 to Gannett Fleming Inc. in the amount of \$47,400.00; Construction Inspection Services to Keystone Consulting Engineers in the amount of \$75,000.00; and Contract Award Cycle 4 General Construction to Joao & Bradley Construction Co., Inc. in the amount of \$1,635,235.00 (8-0).

Allentown Division – Water Main Replacement Program Cycle 4 – Rejection of Bids

Chuck Volk asked the Board to reject all bids for construction for the Allentown Division Water Main Replacement Project, Cycle 4, and explained that bids came in significantly higher than anticipated and beyond the scope of the Authority's budget for the work. The majority of the project was to take place on Susquehanna Street in Allentown, which is a PennDOT road, requiring very strict work hour limitations which may have attributed to the high bid cost. Also, pipe costs have increased more than 50% in the last two years which also contributed to the high bid cost. Mr. Volk said he would like to revisit this project and schedule this work at some future time, prior to any repaving work done by PennDOT, if possible. The Board suggested contacting PennDOT for relief for some of the restrictions. Matt Szuchyt from Senator Browne's office was present and said that he can assist with establishing dialogue with PennDOT. Scott Bieber expressed his concerns to have this project completed subsequent to PennDOT repaving this road.

On a motion by Norma Cusick, seconded by Linda Rosenfeld, the Board rejected all bids for the Allentown Division – Water Main Replacement Program Cycle 4 (8-0).

MONTHLY FINANCIAL REVIEW

Ed Klein gave an overview of the June 2018 financial report that was sent out separately to the Board packet, highlighting variances between budgeted expenses and actual or forecasted expenses.

Liesel Gross distributed the LCA Budget & Capital Plan – Timeline / Process Update and explained the new planning cycle the staff will use to prepare and present the annual budget and 5-year capital plan beginning in 2018.

MONTHLY SYSTEM OPERATIONS OVERVIEW

John Parsons reviewed the Monthly System Operations Overview report for June 2018. Scott Bieber asked for an update regarding the long term plan for Heidelberg Heights to address ongoing problems with sanitary sewer overflows. Chuck Volk replied that one approach is to repair the leaking sewer lines of which 1100' was already repaired in 2018 and has reportedly made a positive impact. There is still more work that needs to be done. Mr. Volk said that the Authority needs to seek method of enforcement regarding sump pumps. Liesel Gross added that the sewer laterals are also

a problem, as industry experts estimate 50 percent of leakage comes from privately owned facilities including sewer laterals.

STAFF COMMENTS

Pat Mandes informed the Board that the Authority will be submitting the Regional Flow Management Strategy (RFMS) plan to the U.S. Environmental Protection Agency (EPA) later this week to meet the August 1, 2018 submission deadline. All paperwork has been received from the signatories with their cover letters in support of the RFMS plan. Liesel Gross will work to place the plan on the website and will notify the Board how to access it when complete.

SOLICITOR'S COMMENTS

None.

PUBLIC COMMENTS / OTHER COMMENTS

None.

Vice Chairman Bieber called a recess at 1:32 p.m. The meeting reconvened at 1:40 p.m.

EXECUTIVE SESSION

An Executive Session was held at 1:40 p.m. to discuss potential litigation. The Executive Session ended at 2:39 p.m.

ADJOURNMENT

There being no further business, the Chairman adjourned the meeting at 2:39 p.m.

Norma Cusick
Assistant Secretary



Lehigh County Authority

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MEMORANDUM

Date: August 13, 2018

To: LCA Board of Directors

From: Jason Peters, Capital Projects Coordinator

Subject: Allentown Division- Water Main Replacement Program
Construction Phase for Cycle 4

MOTIONS /APPROVALS REQUESTED:

No.	Item	Amount
1	<u>Capital Project Authorization – Amendment No. 1</u> Construction Phase, Allentown Division Cycle-4	\$2,165,892
2 **	<u>Professional Services Authorization Allentown Division Cycle 4:</u> <ul style="list-style-type: none"> • Construction Engineering and Management Services, Amendment No. 1 - <i>Gannett Fleming Inc.</i> 	\$53,395
3 **	<u>Construction Contract Approval:</u> Approval of a change order to previously approved general construction contract with JOAO Bradley Construction Co., Inc.	\$1,892,497

*(**) Included in the Capital Project Authorization*

PROJECT OVERVIEW:

The Operating Standards of the Lease Agreement (Agreement) require Lehigh County Authority (LCA) to annually replace 2 miles of aged spun and/or pit cast-iron water mains, except in the first year where only 1-mile was required. This Project covers Cycles 4-6 which addresses the main replacement requirements for years 2018 through 2020 and includes approximately 6 miles of pipe. The main replacements must be coordinated with the City of Allentown’s (COA) Streets program, other City departments, outside agencies, PADOT and private utilities such as UGI. Given the complex nature and magnitude of a project that includes construction in an urban area with many underground facilities, continuous traffic and work restrictions in certain areas presents many challenges and requires a significant amount of coordination and public relations efforts.

FUNDING:

The Project will be funded by the LCA Allentown Division. It is identified required work in the Lease and is classified as a Major Capital Improvement where the cost of the project will be recovered from the ratepayers over a 30-year period above the Lease rate caps.

PROJECT STATUS

In March 2016 the Board approved the Design Phase and Pipe Prioritization Assessment Program for Cycles 4-6 of the Allentown Division Project. On July 23, 2018 the Board rejected bids for the construction phase of 2.2 miles of scoped main replacement, due to significantly higher bids than anticipated, which exceeded LCA's 2018 budget for this work.

Working closely with the City to obtain Major Capital Improvement approvals (as required by the lease) and other outside agencies, LCA has obtained all approvals and permits required for the Cycle-4 Construction Phase of this project.

Construction inspection services are to be performed in-house by LCA staff, in order to reduce budget costs.

THIS APPROVAL: CONSTRUCTION PHASE CYCLE 4

The Allentown Division Cycle 4 main replacement project has been re-scoped to include only the necessary pipe replacement length in order to satisfy city lease requirements, which equates to 0.9 mile in 2018 (utilizing 1.1 mile of credited water main replacements from previous cycles). The 0.9 mile sections are located mainly along City streets, with only one impacted intersection within PennDOT right of way.

The project schedule will meet lease requirements and the contractor will perform the work within the 2018 construction season.

CONSTRUCTION CONTRACT CHANGE ORDER APPROVAL:

Due to nature and scope of the work for this project, which is similar to the nature and scope of work previously authorized by LCA's Board on July 23, 2018 (the Suburban Division Main Replacement Project, Cycle 4), LCA requested that JOAO Bradley Construction Co., Inc. provide LCA with pricing to replace an additional 0.9 mile of water main located within the City of Allentown. The previously approved contract provides for changes in scope consistent with the work requested for this project. Pricing for the change order provided by JOAO Bradley falls within the terms and unit pricing for the previously approved contract, with the total construction cost for the change order totaling \$1,892,497.

After internal review by LCA staff, we recommend approving the change order to the JOAO Bradley contract to do the additional scoped work for this project.

PROFESSIONAL SERVICES CYCLE 4

- 1. Construction Engineering & Management*

Gannett Fleming Inc. our design consultant, will provide construction engineering and management services for the construction phase of the project. The work will generally include:

- Conduct pre-construction conference.
- Review contractor's construction schedule and updates for compliance with project.
- Arrange and conduct monthly progress meetings and provide meeting minutes.
- Review all contractor submittals to ensure that design objectives and requirements of the Contract Documents are met.
- Review documentation for change order requests
- Review monthly pay estimates
- Perform substantial and final completion inspections
- Prepare Change Orders.
- Respond to contractor Requests-for-Information.
- Review certified payrolls.
- Conduct walkover of the project site with contractors and LCA representatives.
- Provide LCA with recommendation on completeness of work, final acceptance and release of final payment.

SCHEDULE

Assuming approval of the Construction Phase at the August 13, 2018 Board meeting, all water main replacements for cycle 4 should be operational by December 1, 2018 (i.e. the substantial completion date).

CAPITAL PROJECT AUTHORIZATION

Amendment No.1

PROJECT NO.:	AD-W-18-3	BUDGET FUND:	Allentown Div\Water\Capital
PROJECT TITLE:	Allentown Division -Water Main Replacement Program Cycles 4-6	PROJECT TYPE:	<input checked="" type="checkbox"/> Construction <input type="checkbox"/> Engineering Study <input type="checkbox"/> Equipment Purchase <input checked="" type="checkbox"/> Amendment No.1
THIS AUTHORIZATION TO DATE (W/ABOVE)	\$ 2,165,892 \$ 3,127,347		

DESCRIPTION AND BENEFITS:

The Operating Standards of the Lease Agreement (Agreement) require Lehigh County Authority (LCA) to annually replace 2 miles of aged spun and/or pit cast-iron water mains, except in the first year where only 1-mile was required. This Project covers Cycles 4-6 which addresses the main replacement requirements for years 2018 through 2020 and includes approximately 6 miles of pipe.

The replacements of these mains are critical in meeting the requirements of the Lease Agreement but also will provide increased reliability of water service for our customers.

This CPA includes 0.9 mile of main replacement and will satisfy the 2018 lease requirements per the Operating Standards.

THIS AMENDMENT –Construction Phase, Cycle-4

Please reference the cover Memo for additional information.

Previous Authorizations	
Design Phase Cycles 4-6	\$961,455

REQUESTED THIS AUTHORIZATION	
Construction Phase Cycle 4	
Staff	\$100,000
Professional Services	
Construction Engineering / Management (Gannett Fleming)	\$53,395
General Construction Contract	\$1,892,497
Miscellaneous	\$20,000
Contingency	\$100,000
Total This Authorization	\$2,165,892

Total Estimated Project	\$3,127,347
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REVIEW AND APPROVALS:

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



Lehigh County Authority

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**PROFESSIONAL SERVICES AUTHORIZATION
Amendment No. 1**

Professional: GANNETT FLEMING, INC.
P.O. Box 67100
Harrisburg, PA 17106

Date: August 13, 2018

Requested By: Jason Peters

Approvals
Department Head: _____
Chief Executive Officer: _____

Allentown Division – Water Main Replacement Program Cycles 4-6

Previous Authorizations- Design Phase, Cycles 4-6: \$601,455

This Authorization- Construction Phase, Cycle-4: \$53,395

Gannett Fleming, Inc. will provide construction related services including but not limited to conducting pre-construction, progress and close out meetings, catalog cut / shop drawing review and approval, change orders, RFI response, Inspection and technical assistance within the following Professional Services.

Professional Services
1. Construction Engineering and Management Services

Please reference the cover Memo for additional information.

Cost Estimate (not to be exceeded without further authorization): \$654,850

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:** _____



LEHIGH COUNTY AUTHORITY

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MEMORANDUM

Date: August 1, 2018

To: LCA Board of Directors

From: Liesel Gross, Chief Executive Office
Charles Volk, Chief Capital Works Officer

Re: Suburban Division – Spring Creek Force Main Air Release Valve Replacement

Action Requested

Lehigh County Authority (LCA) staff requests the Board of Directors take action at the August 13, 2018 meeting to reject all bids for construction of the Suburban Division – Spring Creek Force Main Air Release Valve Replacement, due to lack of bidders and bid prices coming in significantly higher than anticipated.

Project Overview

The Spring Creek Force Main contains nine air release valves (ARVs) over its approximately 25,000 LF length. Many of these ARVs are inoperable; therefore, the project scope included replacing each of them, along with any associated inoperable or aging appurtenances. This project would ultimately return them to operation as originally designed and intended.

The Air Release Valve Replacement project was advertised for bid on July 6, 2018. Although many contractors viewed the project on PennBID, only one contractor submitted a bid. The bid was opened on July 30, 2018 with the following result:

Contractor Name	Contract Bid Amount
Joao Bradley Construction, Inc.	\$336,000.00

The engineer's construction cost estimate for this project was \$100,000. The 2018 budgeted amount for this project, which included additional professional services for construction management and LCA staff expenses, was \$170,000.

Based on the 2018 budget limitations for this work, LCA requests the bids be rejected. The project will likely be re-bid in 2019.

FINANCE & ADMINISTRATION

ACTION ITEMS

1. Allentown Division – 2013C Bonds – August 27, 2018

Authority staff are soliciting short-term borrowing for the refinancing of the City Series 2013C Bonds. Communication has been positive with a number of financial institutions regarding this and final offers are expected within the next week. Should the results of this effort be favorable, a Board resolution to approve the financing will be offered at the August 27, 2018 meeting.

DISCUSSION ITEMS

1. 2017 Annual Risk Management Report – August 27, 2018

The annual report of the Authority’s performance for employee safety and insurance claims has been prepared and will be available for review.

2. 2018 LCA Action Plan & Key Performance Indicators Dashboard – August 27, 2018

A status review of the 2018 Action Plan – year 1 of the LCA 2020 Action Plan – will be offered for discussion at the August 27, 2018 Board meeting. In addition, a presentation of the Authority’s new dashboard of key performance indicators will be provided. The dashboard is in a draft stage and will be presented for conceptual review, with future enhancements discussed.

INFORMATION ITEMS

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

CERTIFICATES OF DEPOSIT						
Fund	Bank	Location	Gross Amount	Date of Purchase	Date Due	Net Rate %
27-Jun-18						
LLRI CR	Eaglebank	Bethesda, MD	245,000.00	5/31/18	3/31/20	2.60
LLRI CR	BMO Harris Bank National Assn	Chicago, IL	245,000.00	5/31/18	6/1/20	2.80
LLRI CR	UBS Bank USA	Salt Lake City, UT	200,000.00	6/13/18	6/15/20	2.80

- 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:
 67 Werley Road, 112 apartments & clubhouse, UMT – No Change
 5354 Hamilton Blvd., 1 commercial lot, LMT – No Change
 Above & Beyond (personal care facility), 2 commercial lots, UMT – No Change
 Fields at Indian Creek, Phase 3, 57 residential units (sfd), UMiIT/Emmaus, water & sewer – No Change

Kohler Tract, 123 residential lots (sfa), UMiIT, water and sewer – No Change
Mary Ann's Plaza, 1 lot with 5 commercial units, NWT – No Change
Parkland School District, new elementary school, 1 lot, UMT
Spring View (Bortz Tract), 14 commercial units, UMT – No Change
Trexler Business Center, 1 lot with 6 commercial buildings, LMT – No Change
Trexler Fields, Phase 1B/8/9, 100 residential lots (sfa), UMT – No Change

Water system plans are being reviewed for the following developments:

5329-5347-5357 Hamilton Blvd., 1 commercial lot, LMT – No Change
5374/5392 Hamilton Blvd., 1 commercial lot, LMT – No Change
Cedarbrook Road Industrial Park, 2 industrial lots, LMT – No Change
CVS, 1 commercial lot, LMT – No Change
Diocesan Pastoral Center, 2 commercial lots, 3 additional lots and residual lot for existing cemetery, LMT – No Change
Farr Tract, 17 residential lots (sfd), LMT – No Change
Grant Street Townes, 18 residential lots (sfa), WashT – No Change
Hickory Park Estates, 3 residential lots (sfd), UMT – No Change
Hillview Farms, 31 residential lots (sfd), LMT/SWT – No Change
Indian Creek Industrial Park, 6 commercial lots, UMiIT, water and sewer – No Change
Lehigh Hills, Lot 5, Phase 1, 273 apartments & clubhouse, UMT – No Change
Lower Macungie Township Community Center Expansion, 1 institutional lot, LMT – No Change
Madison Village at Penn's View, 66 manufactured homes, 1 lot, LynnT, water and sewer – No Change
Millbrook Farms, Section VI, 45 residential lots (sfd), LMT – No Change
Morgan Hills, 40 residential lots (sfd), WeisT, water and sewer – No Change
Ridings at Parkland, 63 residential units (sfd), NWT – No Change
Schoeneck Road, Lot 1, 1 lot warehouse, LMT – No Change
Shepherd's Corner, 1 commercial lot, LMT – No Change
Spring Creek Properties Settlement Subdivision, Lot 1, 1 commercial lot, LMT – No Change
Stone Hill Meadows, Phase 2, 85 residential units (sfd), LMT – No Change
Towneplace Suites by Marriott, 91-room hotel, UMT – No Change
Weilers Road Twins, 82 residential lots (sfa), UMT – No Change
Woodmere Estates, 60 residential units (sfd), UMT – No Change

Sewage Planning Modules Reviewed in Prior Month:

6992 Sunflower Lane, LMT, 223 gpd.

WATER

ACTION ITEMS

1. **Allentown Division – Water Main Replacement Program Cycle 4 – August 13, 2018**

The project is the replacement of 0.9-mile of aged and/or failing Cast Iron water main in multiple locations throughout the City, combined with 1.1 mile of credit water main replacements from previous years meeting our 2 miles of replacement as outlined in the lease. This Project is required under the Operating Standards in the Concession Agreement and will be funded by the LCA Allentown Division. A contract change order to the Suburban Division Cycle 4 water main replacement will be requested for authorization at the 8/13/18 Board Meeting.

2. **Allentown Division – Water Filtration Plant: SCADA System Replacement – August 27, 2018**

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 will be requested at the August 27, 2018 Board Meeting. Replacement will be completed by late 2019. This project will be funded by LCA Allentown Division.

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 construction 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 has completed a majority of the relocation work for LCA's facilities; however, they were pulled off the site due to construction conflicts. It is anticipated at this time the contractor will return by August to finish all of the LCA line relocation. It is anticipated that this work will be reimbursed 100% by the state and that the construction related activities will be incorporated within the state's work.

2. **Allentown Division – Water Filtration Plant: Carbon Dioxide Feed System**

The project consists of the addition of a carbon dioxide feed system at the Allentown Water Plant. With the present conversion from alum to polyaluminum chloride (PACl) as the plant's primary coagulant, proper treatment requires the raw water to be kept within a very small pH range for optimum treatment. The acid feed system will control pH within tight parameters to achieve treatment goals. A Major Permit Application has been submitted to PaDEP. This project has been delayed several times, and the goal for Installation and startup is now in the October/November 2018 timeframe. Board approval for the construction phase is anticipated during late summer of 2018. **(No Change)**

3. **Allentown Division – Water Filtration Plant: Roof Replacement Phase II**

The project consists of various replacements at the Kline's Island Wastewater Treatment Plant, Water Filtration Plant, and miscellaneous gatehouses and pump stations. Phase I of the project was completed in mid-2016. Phase II of the project was advertised on 3/6/2018 and bids were received on 3/27/2018. Board approval for the construction phase of the project was granted at the 4/23/2018 Meeting. Construction will be completed by late August. This project will be funded by LCA Allentown Division. **(No Change)**

6. Suburban Division - Water Main Replacement Program Cycle 4

The project consists of the replacement of approximately 1.36 miles of aged and/or failing Cast Iron water main throughout multiple location in the Suburban Division. The LCA Suburban Division will fund the project. The project bids were opened on July 18, 2018 and project authorization was award at the 7/23/18 board meeting. Construction is to be completed in Q4 of 2018.

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

The project will feature 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. Design of the pump station is under way. The Public Water Supply (PWS) permit has been issued by DEP. One property owner has granted us a water line easement. We are investigating an alternate site for the pumping station. **(No Change)**

8. 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 will be held in August.

9. Suburban Division – Pine Lakes Pumping Station Improvements

This project was originally bid in July 2016 and bids were subsequently rejected due to the lack of competitiveness and significant exceedance of the engineer's estimate. The project was modified and rebid in May 2017 resulting in greater bidder interest and lower prices. The purpose of this project is to upgrade the original hydro-pneumatic well station (built in mid-1970s) to continue the level of service, replace aged and problematic equipment, reduce the probability and consequence of risk, and prolong the useful life of the station. The station is to be upgraded to a double pumping variable speed system with full SCADA telemetry. Construction is complete with only minor punch list items left to complete.

10. Suburban Division – Crestwood Alternate Water Supply

The project consists of abandonment of existing wells and storage tank currently serving higher elevation customers and a connection of the pumping station to the main North Whitehall Division System. The project will also involve installation of a SCADA system. The project bids were opened on July 7 and authorization to award was given at the July 24, 2017 Board meeting. A pre-construction meeting was held in September. Construction started in October 2017 and is expected be completed in July 2018. The wells have been abandoned and residents are now receiving their water through the Northampton Borough Municipal Authority interconnection. Construction is complete with only minor punch list items left to complete.

11. Suburban Division – Water Meter Replacement Project

The project consists of the replacement of approximately 2000 residential meters and 430 commercial meters as well as replacing "non-read" meters with new transceiver units. Residential meters which are 20 years and older and commercial meters 15 years and older will be replaced. All meters will be upgraded to the most current radio read capability. The project was approved at the September 25, 2017 Board meeting. The Notice to Proceed was issued in November. Replacement of meters began the second week of January 2018 and the project is approximately 90% complete. **(No Change)**

12. Suburban Division – Buss Acres Pump Station Replacement

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 accommodate the future addition of radon removal equipment to be implemented upon DEP's mandate of a regulatory limit. Design phase was authorized at the 8/28/17 Board meeting, and the project is anticipated to be ready for bidding in Fall Summer 2018. **(No Change)**

13. Suburban Division – Watershed Monitoring Program

The project will include setting up a surface water flow-monitoring network for the Little Lehigh Creek. The work is in response to the Watershed Monitoring Plan that was developed and reported to LCA by AI Guiseppe (SSM, Inc.) in 2017. Flow monitoring in 2018 will focus on the Little Lehigh Creek only. In 2019, LCA will develop plans to add new monitoring wells to supplement existing groundwater data that is being collected. Total daily flow recordings at Schantz Spring that will need to include the spring field bypass and the tank overflows as well. SSM will assist LCA in calibrating surface flows under the bridges based on the recorded stream elevations. Authorization for the award of the project was approved at the 3/26/2018 Board meeting. LCA and Fybr are currently gaining PennDOT and PPL approvals that will allow us to mount our equipment on their bridges and poles. **(No change)**

14. Suburban Division – Mechanical Asset Management Upgrade Project

This next phase of Asset Management upgrade work focuses on mechanical components, along with some HVAC and electrical system improvements at ten locations in the Suburban Division. The upgrade locations were determined from asset management data collected from internal interviews conducted by Capital Works with senior Operations staff, and based on risk rating. Also as part of the design phase of this project is the condition assessment of seven (7) hydropneumatic tanks that were placed into service in the 1970s and are reaching the end of their service lives. Design phase was authorized the 4/23/18 Board meeting, and design is anticipated to be completed and ready for bid by end of Summer 2018. **(No Change)**

WASTEWATER

ACTION ITEMS

1. **Suburban Division – Spring Creek Force Main Air Release Valve Replacement – Bid Rejection – August 13, 2018**

This project involves the replacement of the nine inoperable or faulty air release valves on the Spring Creek Force Main with new combination air release/vacuum valves. The new air release valves will improve hydraulics and energy efficiency in the force main and at the Spring Creek Pump Station. The project bids were opened on July 30, 2018 and rejection of the bid is requested for authorization at the 8/13/18 board meeting.

DISCUSSION ITEMS

INFORMATION ITEMS

1. **Allentown Division – Kline’s Island WWTP: Miscellaneous Clarifier Improvements**

In December 2016, the drive unit on Final Clarifier #5 at Kline’s Island WWTP experienced a complete failure. The drive was the original unit that was installed during construction of the clarifier in 1968. An emergency declaration was declared to reduce the installation time by several weeks. A request for a retroactive emergency declaration was requested and approved at the January 9, 2017 Board meeting. The drive was installed in April 2017 and is now fully operational. The remaining mechanisms of Final Clarifier #5, and the drive unit and similar mechanisms of Final Clarifier #6 have also reached the end of their useful life and will be replaced in early 2018. Construction approval was granted at the August 28, 2017 Board meeting. Construction is scheduled for completion by the end of August 2018. This capital project will be funded by the LCA Allentown Division. **(No Change)**

2. **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 has now directed to “pause” the design phase of the project as the EPA is scheduled to provide further AO direction. **(No Change)**

3. **Allentown Division – Kline’s Island WWTP Master Plan**

This project involves the development of a Master Plan that is required as part of the lease with the City of Allentown. The Master Plan is similar in scope to what was done previously for the Allentown Water System in 2017, and will include Condition Assessments, Process Optimizations, and both short-term and long-term Capital Improvement Plans. The city lease requirements dictate that the Master Plans must be updated every 5 years for the duration of the lease, and 2018 is the first year that a Master Plan is to be prepared for the wastewater system. A Request for Proposal (RFP) was released to five (5) qualified firms on 12/15/2017 and the proposal due date was 1/26/2018. Authorization for the award of the contract was approved at the 3/12/2018 Board meeting. A kickoff meeting was held on May 24, 2018. Data collection and site assessments are currently underway. Condition Assessment Kickoff Meeting was held July 26, 2018. The project is expected to be finished by the end of 2018.

4. **Allentown Division – Kline’s Island WWTP: Primary No. 2 Digester Miscellaneous Improvements**

This project includes miscellaneous improvements (additional scumbuster and control panel, minor pipe replacement, etc.) for the Primary No. 2 Digester at the wastewater treatment plant. The project was advertised in late April 2018 and bids were received on May 24, 2018. Construction approval granted at the June 11, 2018 Board Meeting. Construction will begin in early August and will be completed by the end of September. This capital project will be funded by the LCA Allentown Division.

5. **Allentown Division – Kline’s Island WWTP: Electrical Substation Replacement**

This project involves the replacement of the existing Substation No. 2. The equipment was installed in 1977 and has reached the end of its useful life. The City has reviewed this and has approved this project as a Major Capital Project. Approval of the design engineer was granted at the May 8, 2017 Board Meeting. The project was advertised in early May and bids were due on 6/8/18. Approval of the construction contract (Base Bid) was granted at the July 9, 2018 Board Meeting. Construction of the project will begin in August of 2018 and will be completed by October 2019. This Major Capital Project will be funded by the LCA Allentown Division.

6. **Allentown Division – Kline’s Island WWTP: Primary No. 2 Digester Cleaning**

This project included the cleaning of the Primary No. 2 Digester at the wastewater treatment plant. The project was advertised on February 23, 2018 and bids were received on March 23, 2018. Construction approval was granted at the 4/9/18 Board Meeting. The cleaning of Primary No. 2 Digester began on May 7, 2018 and was completed on 6/19/18. The bid documents were based on a dry ton removal quantity of 165. This assumed quantity was based on (a) the recent quantities of dry tons removed from Primary No. 1 (156.2) and the Secondary Digester (125.3) and (b) the fact that it was last cleaned in 2010. The actual quantity of dry tons removed was 360.2. Approval of the change order was granted at the July 9, 2018 Board Meeting. This project is now complete.

7. **Suburban Division – Test & Seal Project, Western Lehigh Interceptor Service Area**

Project consists of sanitary sewer cleaning, inspections via CCTV, cured-in-place point repairs, pressure testing and chemical grout sealing of joints, and post construction inspection for sanitary sewer lines located in western and central Lehigh County previously identified as areas subject to leakage. This project is part of the SCARP program. Construction began in August 2016 and finished by Summer 2017. Additional scope work under existing contract has been performed and is anticipated to be closed out by mid-Summer 2018 **(No Change)**.

8. **Suburban Division – Lynn Township WWTP Improvements, Phases 1 & 2**

This project involves upgrade of the wastewater treatment plant (WWTP) headworks to install a mechanical fine screen, in order to protect the influent pumps and mitigate rag buildup. The project is funded by the Lynn Township Suburban Division. Construction is complete with only minor punch list items left to address. **(No Change)**

9. **Suburban Division – Spring Creek Pump Station**

This project involves the following upgrades to the existing pumping station: Install a comminutor to reduce buildup of debris on the bar screens, replace the manually operated weir gates with new motorized weir gates, and upgrades to the SCADA system. Design of the project is complete. The Notice to Proceed was issued on December 12, 2017. The project is currently under construction and is anticipated to be completed by late Summer 2018. **(No Change)**

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

The Park Pump Station and Force Main line were constructed in 1980 to provide wet weather relief to the Little Lehigh Creek Interceptor, which conveys wastewater from ten municipalities from outlying areas to the Kline’s Island Wastewater Treatment Plant (KIWWTP). The force main consists of 8,715 linear feet of prestressed concrete cylinder pipe (PCCP) of various sizes

(2,615' of 24"; 2,695' of 30"; and 3,405' of 36"), and connects with the 54" sanitary sewer interceptor that runs to KIWWTP. PCCP is particularly sensitive to deterioration due to hydrogen sulfide gas from wastewater, and corrosion of exposed reinforcing steel can result in structural degradation and pipe failure. An internal investigation of the pipe is required to assess the condition of the PCCP pipe and identify damage areas, in order to determine the locations and extent of rehabilitation needed to restore the level of service, prolong service life, and mitigate the risk of failure. Capital Works is planning 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. Using this data, the need for performing a complete pipeline condition assessment will be determined, possibly utilizing a new electromagnetic technology for performing an internal pipe condition assessment that entails minimal interruption of operation of the pump station and force main. LCA and Arcadis are currently waiting for a dry weather period in late Summer 2018 to conduct test trials at the PTP for reducing flow to the Park Pump Station via utilization of the pretreatment plant flow equalization basin (hold back flow) in order to determine the acceptable duration for a temporary shut-down of the station in order to perform the force main inspection.

11. **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 1/4/18, and bids were opened 2/1/18. Construction phase was authorized at the 2/12/18 Board meeting. Notice to proceed for the construction contracts was issued dated 3/26/18. A pre-construction meeting was conducted in early April 2018, and construction is anticipated to be completed by Summer 2019. **(No Change)**

12. **Suburban Division – Heidelberg Heights Sanitary Sewer Rehabilitation**

This project involves replacement of approximately 1,100 feet of 8-inch sewer main and 54 sewer laterals (public portion only) in the Heidelberg Heights sanitary sewer system. Recent internal CCTV inspection of the system revealed numerous pipe breaks, root intrusions, and other defects that has resulted in excessive infiltration of groundwater, particularly during storm events. The targeted sewer lines appear to be in the worst condition, and have the highest priority for replacement. This project is part of an on-going effort to reduce hydraulic overloads at the Heidelberg Heights wastewater treatment plant. The project was advertised for bid in January 2018 and bids were opened on 2/28/2018. The Board authorized the construction phase of this project at the 3/12/2018 Board meeting. LCA issued a notice to proceed on 3/29/18 to the contractor and construction is anticipated to be completed by early Summer. **(No Change)**

13. **Suburban Division – Heidelberg Heights Wastewater Treatment Plant Improvements**

As part of an asset management approach to maintaining the level of service and mitigating risk of failure at the Heidelberg Heights Wastewater Treatment Plant, a condition assessment evaluation is being performed for the Equalization/Sludge Holding tank. This steel tank is part of the original plant, installed in the mid-1970s, and is compartmentalized to serve as both a raw sewage equalization tank (for sequenced pumping to the newer SBR tanks), and for storing liquid sludge (for pump and haul removal). The exposed portions of this tank display areas of corrosion, and the tank is to be drained and cleaned in order to perform a thorough assessment to determine structural integrity and remaining service life. **(No Change)**

14. **Suburban Division – Wynnewood and Sand Spring 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 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.

Each plant, while meeting effluent limits, has reached the end of its useful life. Both plants are 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 facilities in entirety with new facilities utilizing a proven technology appropriate for the wastewater flows and loading characteristics at each site. The new facilities 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 should be concluded by mid-Summer 2018.

The DEP Part 2 Water Quality Management Permit was received in March 2018 for the Wynnewood project. DEP permitting for the Sand Spring project has been delayed due to technical issues and lengthy DEP review times. In order to avoid continued delays, we anticipate proceeding with bidding the Wynnewood project in advance of Sand Spring. The Wynnewood project will be ready for bid phase in August 2018. **(No Change)**

15. Suburban Division – SCARP

EPA is considering terminating the Administrative Order after submission and approval of a regional flow management strategy (RFMS) inclusive of all EPA AO respondents. EPA has indicated that the following critical elements should be included in the program: collection system operation and maintenance plan, system characterization, source removal, flow modeling, and flow targets. Should this action take place, then the Pa. Department of Environmental Protection would resume its enforcement oversight of the program through the Chapter 94 regulations.

The submission for all City Signatories was sent to EPA for the August 1st deadline. The submission included the RFMS inclusive of all Signatories, individual Operation & Maintenance plans, and individual Source Reduction Plans.