



## **BOARD MEETING AGENDA – June 11, 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](http://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 21, 2018 Board meeting minutes*

4. Public Comments

5. Action / Discussion Items:

### **FINANCE AND ADMINISTRATION**

#### **WATER**

#### **WASTEWATER**

- *Allentown Division – Kline's Island WWTP: Primary No. 2 Digester Miscellaneous Improvements (green)*

6. Monthly Project Updates / Information Items (1<sup>st</sup> Board meeting per month) – **June 2018 report attached**

7. Monthly Financial Review (2<sup>nd</sup> Board meeting per month)

8. Monthly System Operations Overview (2<sup>nd</sup> 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 25, 2018

July 9, 2018

July 23, 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**

### **May 21, 2018**

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The Regular Meeting of the Lehigh County Authority was called to order at 12:10 p.m. on Monday, May 21, 2018, Chairman Brian Nagle presiding. Other Members present at the commencement of the meeting were: Linda Rosenfeld, Kevin Baker, Jeff Morgan, Richard Bohner, and Ted Lyons. Deana Zosky was present on the conference phone throughout the entire meeting. Authority Staff present were Liesel Gross, Ed Klein, Pat Mandes, Brad Landon, Chuck Volk, Chris Moughan, Susan Sampson, John Parsons, and Lisa Miller.

#### **REVIEW OF AGENDA**

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

Chairman Nagle also announced that an Executive Session was held prior to the regular meeting, starting at 11:04 a.m. to discuss potential litigation. The Executive Session ended at 11:50 a.m.

Liesel Gross noted there are no additional changes to the agenda and no additional executive sessions planned for this meeting.

#### **APPROVAL OF MINUTES**

##### ***April 23, 2018 Regular Meeting Minutes***

Richard Bohner noted one spelling correction to the Minutes of April 23, 2018.

On a motion by Richard Bohner, seconded by Linda Rosenfeld, the Board approved the Minutes of April 23, 2018 meeting as corrected (6-0). Ted Lyons abstained.

##### ***May 14, 2018 Regular Meeting Minutes***

On a motion by Richard Bohner, seconded by Linda Rosenfeld, the Board approved the Minutes of May 14, 2018 meeting (7-0).

#### **PUBLIC COMMENTS**

None.

#### **ACTION AND DISCUSSION ITEMS**

Chairman Nagle announced that he is changing the order of the agenda, saving the item regarding monthly billing under Finance and Administration for last.

#### **MONTHLY FINANCIAL REVIEW**

Ed Klein gave an overview of the April 2018 financial report that was sent out with the Board packet. The cash flow variance is due to the reduction in capital spending. Chuck Volk reported that Suburban Water is on schedule in terms of completing the projects that will utilize bond funds that were secured in 2017.

**MONTHLY SYSTEM OPERATIONS OVERVIEW**

John Parsons reviewed the Monthly System Operations Overview report for April 2018. Chairman Nagle questioned the completion of the Heidelberg Heights sewer project and the status of ongoing sanitary sewer overflows in that system. Chuck Volk reported that the project is ongoing and should be complete within a month. The project is replacing 1100' of sewer main and laterals.

Glenn Hunsicker of Allentown, asked about capacity regarding water production in Allentown. How much is being produced versus what is permitted, and what is the Authority's projection looking ahead regarding selling excess water capacity. John Parsons answered some of the questions about production and sales, but explained the Authority does not have a specific plan for selling excess water capacity at this time.

**LCA Billing Procedures – Allentown Division – Adoption of Monthly Billing**

Liesel Gross gave an overview of the public input received regarding monthly billing and rates in the Allentown Division via multiple methods over the past several weeks. Methods of collect public input included an online form, email, phone calls, English and Spanish customer communication and a public input hearing held on May 17, 2018 at the Lehigh County Government Center in Allentown. More than 200 comments were provided, and the Board was provided with a complete listing of all public comments prior to the meeting for their review.

Ms. Gross also gave a PowerPoint presentation highlighting alternative rate structures that may address citizens' concerns regarding the large increase in fixed charges under the monthly water and sewer rate structure. However, she also explained that using an alternative rate structure is not provided for under the terms of the lease agreement with Allentown and would require City willingness to discuss such alternatives.

She further explained that based on the financial needs of the system and timeliness of requirements for revenue enhancements to address system expenses for debt service and system improvements, the recommendation at this time from the staff is to implement monthly billing using the City's existing rate schedule already in the lease. As part of the staff recommendation the Authority will remain open to discussion with the City on alternatives for the future which could help citizens, but that require a review/amendment of the lease documents.

Ted Lyons commented that there are other ways and options but because of the lease agreement, the Authority's hands are tied in terms of how to implement them. If given more flexibility, the Authority could seek those other alternatives.

Richard Bohner commented that the other two competitors bidding on the lease had rates structures that were significantly higher than the Authority because they are governed by the Public Utility Commission (PUC).

Ted Lyons also commented that the monthly billing rates were created by the City of Allentown long before the lease. Liesel Gross said that the rate structure can be seen in the City's ordinances dating back almost twenty years, possibly longer.

Jeff Morgan commented that when a capital project is completed at the water or wastewater plant, those costs are spread out to all customers, not just city customers. Liesel Gross explained capital cost recovery charges on the water side where the volume charge to city customers includes a recovery charge that also passes through to municipalities, other than the LCA bulk purchase rate that does not include this same type of charge but there is a peripheral charge that is meant to cover capital costs. On the wastewater side, the city customers and municipalities pay for capital

improvements based on how much of the plant capacity is owned by each municipality, so costs are spread out accordingly.

Kevin Baker asked for clarification regarding the landlord tenant-issue in Allentown. The Authority has the ability to bill the landlord or tenant which generally applies to smaller units. Many of the situations are with larger apartment buildings that use a single service line and a larger single meter where the landlord gets a single monthly bill and is already paying the monthly rate. Therefore, it's important to keep in mind when talking about affordability, some percentage of low income households are renters in apartments that are already being billed monthly. Ms. Gross confirmed Mr. Baker's statement as being accurate in terms of how tenants are affected.

Glenn Hunsicker of Allentown gave the Board and Staff a handout entitled Notes to Financial Statements and Facts about the Proposed Long-term of the City's Water and Sewer Utility Systems and reviewed how the lease was set up to generate excess cash flow to pay for debt.

Tom Hahn of Allentown questioned if the ratio of Board members representing Suburban and Allentown should be more equal. Chairman Nagle responded that currently, there are three Board members who are from the City of Allentown. Mr. Hahn suggested that a separate Board to review the Allentown Division would be appropriate.

Jennifer McKenna, Compliance Office City of Allentown, clarified how the rate structure came about in Allentown stating that the rates were based upon what it would cost to use meter readers that were put in place for businesses or residents that would want to go to monthly billing and capture the business costs in doing so. Ms. McKenna also clarified the capital expenses stating the difference between City water and sewer charge components in bills to LCA's Suburban Division. The 7 million gallons of water billed to LCA's Suburban Division is  $\frac{1}{3}$  of the city's water plant production and although there are some costs included, those costs don't begin to pay for the infrastructure improvements which are placed on the shoulders of the city rate payers. On the sewer side, the fund has a lot of contributors to cover those costs from the region, which is more equitable. Ted Lyons said the Board is aware of these perspectives, and Liesel Gross commented that the Authority should remain open to discussing such issues, but that it is inappropriate to select only one issue to focus on when there are numerous other issues that need to be discussed.

Liesel Gross said the suggested actions for implementing monthly billing are listed in the memo to the Board. Ms. Gross reminded the Board that the rates are already adopted and on our website because they are part of the concession rate schedule, so the action request is simply an authorization to implement the process change implementing the rates that were adopted previously. There is also a budget amendment representing the costs that would be incurred to implement the monthly billing on this increased scale.

Jennifer McKenna asked if the budget amendment included recovery of implementation costs through additional rate increases. Ms. Gross explained the budget amendment is a required process to authorize the expenditures, and that the monthly rates included in the lease were the rates that LCA would implement.

Ted Lyons made a motion, seconded by Linda Rosenfeld, that recognizing that nearly 2½ years have passed with no forward movement on resolving the disputes LCA has raised with the City about matters that affect financial viability of the lease, including LCA's claim that the City fraudulently induced LCA to enter into the agreement by misstating its actual operating expenses that impact sewer revenues under the lease, among other disputes, and recognizing the City's public statements regarding legal action it plans to take against LCA to further restrain LCA from taking actions to improve its financial position under the Lease, the Board authorizes the management staff to file for arbitration with the American Arbitration Association regarding these disputes as soon as

possible. This authorization includes approval for litigation expenses associated with the filing include, without limitation, filing fees and arbitration charges, litigation fees of McNees Wallace & Nurick, and expert witness fees of Asterion Inc. for forensic accounting services (7-0).

Glenn Hunsicker of Allentown, asked if the Board would issue an amendment to limit the cost of the arbitration, He also asked for more clarification and for LCA to try to negotiate with the City. Chairman Nagle said we have tried to negotiate to no avail. Linda Rosenfeld added that this included going through the mediation process to try to resolve the arbitration issue with the City.

Liesel Gross said the second motion needs to include (i) authorization to implement the monthly billing rates that were previously adopted and (ii) adoption of the 2018 Budget amendment for the Allentown Division. On a motion by Ted Lyons, seconded by Richard Bohner, the Board approved the process change to monthly billing in the Allentown Division and the 2018 Budget Amendment – Allentown Division (7-0).

### **STAFF COMMENTS**

Liesel Gross called attention to the Monthly Project Updates for May that were included with the packet.

Linda Rosenfeld asked for an update on the Hamilton Street Bridge. Chuck Volk stated the project is expected to be completed later this summer.

### **SOLICITOR'S COMMENTS**

None.

### **PUBLIC COMMENTS / OTHER COMMENTS**

None.

### **EXECUTIVE SESSION**

No additional Executive Session.

### **ADJOURNMENT**

There being no further business, the Chairman adjourned the meeting at 1:26 p.m.

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Richard H. Bohner  
Secretary

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## MEMORANDUM

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**Date:** June 11, 2018

**To:** Lehigh County Authority Board of Directors  
**From:** Phil DePoe, Capital Works Program Manager  
**Subject:** Allentown Division – WWTP: Primary No. 2 Improvements - Construction Phase

**MOTIONS / APPROVALS REQUESTED:**

<b>No.</b>	<b>Item</b>	<b>Amount</b>
1	Capital Project Authorization – Construction Phase	\$216,848
2 <sup>(1)</sup>	Professional Services Authorization – GHD Inc.	\$14,862
3 <sup>(1)</sup>	General Contract Award – GM McCrossin, Inc.	\$176,986

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

**PROJECT OVERVIEW:**

During the recent Digester Cover Replacement Project, both the Secondary and Primary No. 1 Digester underwent miscellaneous improvements. This included, but was not limited to, internal piping replacement, Scumbuster replacement, and Scumbuster control panel installation. This project will complete similar improvements in the Primary No. 2 Digester. Project scope includes the installation of a roof-mounted Scumbuster and related control panel, replacement of internal gas piping, replacement of other internal piping, addition of a new external stairway access to the digester building roof, and the installation of level sensor target plate.

**FINANCIAL:**

This Project will be funded by the LCA Allentown Division.

**PROJECT STATUS:**

The project was advertised for bid on April 27, 2018. A pre-bid meeting was held on May 8, 2018. Bids were received on May 24, 2018.

**THIS APPROVAL – CONSTRUCTION PHASE:**

The construction phase includes activities that are necessary to install the improvements for Primary No. 2 Digester. The General Contractor will be responsible for all construction activities, including but not limited to the following:

- Pipe replacement
- Scumbuster/control panel addition
- Addition of access stairs.

The design engineer will be responsible for periodic oversight of the construction, which will be supplemented by in-house project management provided by LCA.

**BIDDING SUMMARY:**

The project requires a General Construction (GC) Contract. The bid results are summarized below:

<b>Bidder</b>	<b>Bid Results</b>
<b>GM McCrossin, Inc.</b>	<b>\$176,986</b>
Heisey Mechanical, Ltd.	179,970
Eastern Environmental Contractors, Inc.	188,880

Based upon the review of the bids, we recommend award of the General Construction contract to GM McCrossin, Inc., subject to the receipt of the necessary Performance Bonds, Insurance and other required documentation. LCA staff has reviewed the supplied references and GM McCrossin, Inc. is qualified to complete this project.

**PROFESSIONAL SERVICES:**

GHD Inc. 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. Attend the pre-construction meeting and three progress meetings
2. Approve shop drawings when submitted
3. Review and respond to contractor RFIs
4. Process any necessary change orders
5. Prepare final project close-out and record drawings

**PROJECT SCHEDULE:**

The specifications require the project to be complete by the end of September 2018.

**FUTURE AUTHORIZATIONS:**

No future authorizations are anticipated for this project.

# CAPITAL PROJECT AUTHORIZATION

<b>PROJECT NO.:</b>	AD-S-18-3	<b>BUDGET FUND:</b>	Allentown Div\Wastewater\Capital
<b>PROJECT TITLE:</b>	Allentown Division – WWTP: Primary No. 2 Improvements - Construction Phase	<b>PROJECT TYPE:</b>	<input checked="" type="checkbox"/> Construction <input type="checkbox"/> Engineering Study <input type="checkbox"/> Equipment Purchase <input type="checkbox"/> Amendment No. 1
<b>THIS AUTHORIZATION:</b>	\$216,848		
<b>TO DATE (W/ ABOVE)</b>	\$241,848		

**DESCRIPTION AND BENEFITS:**

During the recent Digester Cover Replacement Project, both the Secondary and Primary No. 1 Digester underwent miscellaneous improvements. This included, but was not limited to, internal piping replacement, “Scumbuster” replacement, and “Scumbuster” control panel installation. This project will complete similar improvements in the Primary No. 2 Digester. Project scope includes the installation of a roof-mounted “Scumbuster” chopper pump and related control panel, replacement of internal gas piping, replacement of other internal piping, addition of a new external stairway access to the digester building roof, and the installation of level sensor target plate.

This capital project will be funded by the LCA Allentown Division.

Please see attached Board Memo for further project details.

**Authorization Status:**

<i>Previous Authorizations</i>	
<i>Design Phase</i>	<i>\$25,000</i>

<b>Requested This Authorization</b>	
<b><i>Construction Phase</i></b>	
<b>Staff</b>	<b>\$15,000</b>
<b>General Contractor</b>	<b>176,986</b>
<b>Engineering Consultant</b>	<b>14,862</b>
<b>Contingency</b>	<b>10,000</b>
<b>Total This Authorization</b>	<b>\$216,848</b>

Future Authorizations	None Anticipated
<b>Total Estimated Project</b>	<b>\$241,848</b>

**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  
AMENDMENT NO. 1**

**Professional:** GHD INC.  
3655 East Swamp Road  
Doylestown, PA 18902

**Date:** June 11, 2018

**Requested By:** Phil DePoe

**Approvals**

**Department Head:** \_\_\_\_\_

**Chief Executive**

**Officer:** \_\_\_\_\_

**Allentown Division – WWTP: Primary No. 2 Miscellaneous Improvements – Construction Phase**

GHD Inc. will perform the construction phase related services for the miscellaneous improvements of the Primary No. 2 Digester at the City of Allentown’s Wastewater Treatment Plant (WWTP).

**This Authorization**

Professional Services Authorization: **\$14,862**

<b>Professional Services <sup>(1)</sup></b>
1. Attend the pre-construction meeting, three progress meetings, substantial completion meeting, and final acceptance meeting
2. Review and approve shop drawings
3. Review and respond to contractor RFIs
4. Process any necessary change orders
5. Prepare final project close-out and record drawings

*(1) For Construction Phase Only.*

**Design and Bidding Phase**

Previous authorization: **\$21,015**

**Total**

Not to be exceeded without further authorization: **\$35,877**

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

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**(For Authority Use Only)**

**Authorization Completion:**

**Approval:** \_\_\_\_\_ **Actual Cost:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**FINANCE & ADMINISTRATION**

**ACTION ITEMS**

1. **2013C Bond Refinance – June 25, 2018 or July 9, 2018**  
Review and approval to move forward on the City Division Series C Bond Refinancing with Concord Financial.
2. **2017 Audit and Financial Statements – June 25, 2018**  
Review and adoption of 2017 Financial Statements with auditors.
3. **Tapping Fees – June 25, 2018 or July 9, 2018**  
Review and approval of Tapping Fees for all three funds that will be effective 07/01/2018.

**DISCUSSION ITEMS**

**INFORMATION ITEMS**

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

<b>CERTIFICATES OF DEPOSIT</b>						
26-Feb-18			Gross	Date of	Date	Net Rate
Fund	Bank	Location	Amount	Purchase	Due	%
Cons Wtr (2)	Crossfirst Bank	Leawood, KS	249,000.00	1/24/18	1/24/20	2.00
Cons Wtr (2)	Flagstar Bank FSNB	Troy, MI	249,000.00	1/26/18	1/27/20	2.15
Cons Wtr (2)	Volunteer State Bank	Portland, TN	245,000.00	2/9/18	2/10/20	2.00
LLRI CR	PSDLAF Flex Pool		400,000.00	1/12/18	6/26/18	1.25
Cons Wtr (2)	PSDLAF Flex Pool		155,000.00	1/12/18	6/26/18	1.25
Cons LL2 (314)	PSDLAF Flex Pool		245,000.00	1/12/18	6/26/18	1.25
WW Capac	PSDLAF Flex Pool		600,000.00	1/12/18	6/26/18	1.25
Wtr R&R	PSDLAF Flex Pool		1,000,000.00	1/12/18	6/26/18	1.25
LLRI CR	Customers Bank	Phoenixville, PA	245,000.00	2/21/18	8/21/19	2.10

- 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:  
 Above & Beyond (personal care facility), 2 commercial lots, UMT  
 Mary Ann’s Plaza, 1 lot with 5 commercial units, NWT  
 Spring View (Bortz Tract), 14 commercial units, UMT – No Change  
 Trexler Business Center, 1 Commercial 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  
5354 Hamilton Blvd., 1 commercial lot, LMT – No Change  
5374/5392 Hamilton Blvd., 1 Commercial lot, 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  
Kohler Tract, 123 residential lots (sfa), 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  
Parkland School District, new elementary school, 1 lot, UMT – 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  
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:  
Towneplace Suites by Marriott, UMT, 4,590 gpd.

## WATER

### ACTION ITEMS

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### DISCUSSION ITEMS

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### INFORMATION ITEMS

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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 July 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 Main Replacement Program Cycle 4**

The project is the replacement of 2-miles of aged and/or failing Cast Iron water main in multiple locations throughout the City. Final review by the City and PennDOT are under way. This Project is required under the Operating Standards in the Concession Agreement and will be funded by the LCA Allentown Division.

3. **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. Submission of a Major Permit Application with PaDEP is currently in process and is to be submitted in June. 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 the summer of 2018.

4. **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 July. This project will be funded by LCA Allentown Division.

5. **Suburban Division - Water Main Replacement Program Cycle 4**

The project consists of the replacement of approximately 2 miles of aged and/or failing Cast Iron water main. The design phase of this project was approved at the October 2017 Board meeting. The project is currently in design phase with an anticipated bid date of early June 2018.

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

The project will feature the installation of a new booster pumping station and water main extension to pump water from the Lower Pressure System to the Upper Pressure System. The project will also involve installation of a SCADA system. The Public Water Supply (PWS) permit

has been issued by DEP. We are revising the proposed pump station easement as requested by the property owner. Bid phase of the project will commence in May 2018 **(No Change)**.

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 – 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 began in Fall 2017, and will be completed by early Summer 2018 **(No Change)**.

9. **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 to be completed in June 2018. The wells have been abandoned and residents are now receiving their water through the Northampton Borough Municipal Authority interconnection.

10. **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 85% complete.

11. **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 late Summer 2018 **(No Change)**.

12. **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. An RFP for vendors to supply flow-monitoring and data transmission equipment to be used at six (6) local bridges was released on 2/1/2018, with proposals due on 3/2/2018. 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. Contract development with FYBR is currently underway. A kickoff meeting is anticipated sometime during the summer of 2018.

**13. 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 mid-Summer **(No Change)**.

## WASTEWATER

### ACTION ITEMS

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1. **Allentown Division – Kline’s Island WWTP: Primary No. 2 Digester Miscellaneous Improvements – June 11, 2018**

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 and bids were received on 5/30/18. Construction approval is requested at the June 11, 2018 Board Meeting. Construction will begin in early July and will be completed by the end of September. This capital project will be funded by the LCA Allentown Division.

2. **Allentown Division – Kline’s Island WWTP: Electrical Substation Replacements – June 25, 2018**

This project involves the replacement of the existing 12.4 kV Switchgear and existing Substation No. 1 and 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 is requested at the June 25, 2018 Board Meeting. Construction of the project is expected to begin in July of 2018 and will be completed by December 2019. This Major Capital Project will be funded by the LCA Allentown Division.

### DISCUSSION ITEMS

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1. **Suburban Division – SCARP – June 25, 2018 or July 9, 2018**

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. LCA, the Western Lehigh Sewerage Partnership, City of Allentown, and City municipal signatories agreed to this approach in concept and received written confirmation from EPA that the submission deadline is August 1, 2018. Meetings have been taking place with the Partners and City Signatories to develop the RFMS.

### INFORMATION ITEMS

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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: Primary No. 2 Digester Cleaning**

This project includes 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 is scheduled for completion by mid-June 2018. This capital project will be funded by the LCA Allentown Division. **(No Change)**

4. **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 and the project is expected to be finished by the end of 2018.

5. **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 is expected to finish by the end of Summer 2017; additional scope work under existing contract is being concluded in Spring 2018 and project will be closed out by early Summer. **(No Change)**

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

This project will upgrade 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.

7. **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)**.

8. **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 currently evaluating technologies and procedures for performing an internal force main pipe condition assessment that require minimal interruption of operation of the pump station and force main. LCA and Arcadis are currently waiting for an extended dry weather period to conduct test trials for reducing flow to the Park Pump Station via utilization of the pretreatment plant flow equalization basin (hold back flow) in order to undertake a temporary shut-down of the station are being planned. **(No Change)**.

9. **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)**.

10. **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 on 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)**.

11. **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 proposed 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)**.

12. **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.

**13. Suburban Division – Spring Creek Force Main Air Release Valve Replacement**

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 is in design phase and will be advertised for bid in June of this year.