



BOARD MEETING AGENDA – October 9, 2017

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

- *September 25, 2017 Board meeting minutes*

4. Public Comments

5. Action / Discussion Items:

FINANCE AND ADMINISTRATION

WATER

- *Suburban Division – Water Main Replacement Program Cycle 4-6 (blue)*
- *Allentown Division – Schantz Spring Exposed Main Replacement (yellow)*

WASTEWATER

- *Wastewater Rules and Regulations (green)*

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

October 23, 2017

November 13, 2017

November 27, 2017

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
September 25, 2017

The Regular Meeting of the Lehigh County Authority was called to order at 12:02 p.m. on Monday, September 25, 2017, Vice Chairman Scott Bieber presiding. Other Members present at the commencement of the meeting were: Linda Rosenfeld, Jeff Morgan, Richard Bohner, Norma Cusick, and Deana Zosky. Authority Staff present were Liesel Gross, Brad Landon, Ed Klein, Pat Mandes, Chuck Volk, Chris Moughan, John Parsons, Susan Sampson, Jennifer Montero, Amy Kunkel, 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 noted there are no Agenda changes but noted that a few handouts were distributed prior to the meeting that relate to the presentations at today's meeting. Ms. Gross also noted there will be an Executive Session at the end of the regular agenda regarding matters of potential litigation.

Vice Chairman Bieber announced he would like to discuss fracking waste at the end of the meeting.

APPROVAL OF MINUTES

September 11, 2017 Regular Meeting Minutes

On a motion by Richard Bohner, seconded by Norma Cusick, the Board approved the Minutes of the September 11, 2017 meeting (6-0).

PUBLIC COMMENTS

Joyce Marin, a resident of Longswamp Township, Berks County, thanked Liesel Gross, and also the Board, for assisting her with the information on the Authority's website regarding the groundwater table. Ms. Marin also stated she would like to discuss fracking waste. Scott Bieber said that the Board will be discussing this at the end of the meeting under Public Comments / Other Comments.

ACTION AND DISCUSSION ITEMS

LCA Pension Program – 2018 Minimum Municipal Obligation (MMO)

Liesel Gross presented the 2018 Minimum Municipal Obligation (MMO) memorandum and worksheet for the Authority's Pension Plan to the Board. No action is required. Deana Zosky asked what the obligation was for 2017. Ed Klein responded and said that the MMO is up slightly from 2017 because the Authority's plan is underfunded slightly as a result of the transfer of Allentown employees to the Authority in 2013. This is expected to be addressed via additional payments into the pension plan over a period of several years.

2018-2022 Capital Plans – Final Draft

Liesel Gross stated that the 2018 budget, rates, and capital plans will all be approved together in October. The final draft 2018-2022 capital plans distributed at the meeting include financial analysis pages that were excluded from the preliminary draft distributed previously. Any questions or comments should be addressed prior to the October 9, 2017 meeting.

At the request of Ed Klein and the approval of the Board, the Suburban Water Rate Study was presented at this time as a change in the order of the agenda items.

Suburban Water Rate Study

Dave Busch, the Authority's rate consultant from Keystone Alliance Consulting, Inc., presented the process for a Cost of Service Study along with a PowerPoint presentation. Liesel Gross explained that this rate study

was conducted specifically for the Suburban Water Division. Other rate evaluations for the Suburban Wastewater and City divisions would be discussed separately.

Kevin Baker arrived at 12:21 p.m.

Mr. Busch explained a key element of the study is to review different cost components for providing water service to customers based on minimum and maximum demands, and assigning the costs into categories that will be used to calculate a rate for each customer class. The goal of the rate study is to design a rate structure that recovers the cost of providing water service so that customers pay for what they use. A key question for the study is how capital expenses should be incorporated into the annual revenue requirement. Mr. Busch explained that if the Authority finances all capital expenses with debt, the overall debt will go up along with debt service costs. One of the positive aspects of this approach is that the debt is financed over a long period of time and future customers are helping to pay for the assets that have a long useful life. However, financing some of the capital expenses directly through the rates each year can also be beneficial in reducing borrowing requirements and financing costs. The Authority should also evaluate if a maximum rate increase threshold should be incorporated into the funding and ratemaking approach. He explained that the rate study will be set up to allow for different scenarios to be evaluated prior to recommending a final rate structure.

Ms. Gross said the rate study conclusions will be presented in October and the Authority will incorporate the results into the final budget proposal for Board adoption.

Board had some discussion regarding key assumptions to be included in the rate study.

2018 Preliminary Budget

Ed Klein reviewed the 2018 Preliminary Budget providing statement sheets and a PowerPoint presentation.

Regarding the Suburban Water Division, Mr. Klein explained that the new bond issue completed in 2017 will result in higher debt payments in 2018. To maintain proper debt service coverage of 120 percent, revenues will need to increase by at least 4 percent, which may be a combination of growth plus a rate increase. In addition, the operations budget is being evaluated for cost-cutting opportunities since there were significant increases in 2017 due to new programs and services being introduced. This budget will be finalized after results of the rate study are available.

Mr. Klein reviewed the Suburban Wastewater Division, which continues to show healthy performance due to the historical practice of including some reserve funding into the rates, and very low debt load. Additional details would be provided regarding rate-setting for this division in the next agenda item.

In the City Division, Mr. Klein explained that the net cash available will not be enough to cover the bond "Series C" principal payment due in March of 2018 of approximately \$19 million. This amount will need to be refinanced, resulting in an increase in annual debt service payments due. He explained that to make debt service coverage requirements, the operations budget will need to be heavily cut and the Authority will be severely limited in what capital improvements can be financed, although the current draft capital plan calls for approximately \$15 million in capital improvements in 2018. Several Board members expressed their concerns regarding the City budget revenue adequacy and the trend of cutting operations to make debt service payments, which is not sustainable. Deana Zosky voiced her concerns about the endless cycle of cost cutting while suppressing rates which leads to a system not being properly maintained and not providing our customers with high-quality service.

Liesel Gross noted that all budgets have been presented to the Board in a preliminary format to ensure the Board is aware of the constraints the Authority currently faces. All budgets will continue to be refined with the goal of presenting a budget that meets all cash and bond indenture requirements, and the rate evaluations currently under way will be incorporated into the final presentation of the budget. Regarding the City Division budget, she acknowledged the very narrow margin available to cover debt service, which requires operational budget changes to either increase revenues or decrease expenses, or both. Review of

the capital budget as part of this process will be required as well to ensure the projects are truly required and to prioritize carefully based on available funding.

The Board thanked the staff for presenting the Authority's financial picture in a candid manner.

2018 Western Lehigh Rates – Preliminary Review

Jennifer Montero, contracts administrator for the Authority, presented the 2018 Western Lehigh sewer rates and user charge report, which was distributed at the beginning of the meeting. Ms. Montero is requesting preliminary approval of the Western Lehigh Interceptor (WLI) and Little Lehigh Relief Interceptor (LLRI) Phase 1 and 2 rates as described in the report. She explained that the rates are developed using a cost of service methodology that includes what the Authority pays for treatment at Kline's Island as well as the Authority's operations and maintenance costs associated with WLI, LLRI-1 and LLRI-2. The budgeted costs and billing basis are reconciled after actual costs are audited so that it truly is a "cost of service" methodology. The effect of the proposed rates on an average residential user is a 3.3 percent increase to the portion of their bill that contains the WLI rates. The increase is due primarily to an increase in City Division operating costs of about 6 percent to allow for required maintenance and associated staffing, along with the inclusion of \$400,000 for the LLRI-1 reserve fund/capital funding line. This funding is earmarked for the Park Pump Station (PPS) Force Main Rehabilitation capital project.

Jeff Morgan asked why some of the rates went down in a climate in which we are trying to build revenue. Ms. Montero explained that total system costs are allocated over five parameters (flows, BOD, TSS, TKN, and allocation), and that allocation method is in accordance with the inter-municipal agreements with the signatories. Because the rates are calculated by an agreed-upon formula, the actual changes in budgeted expenses and debt service costs will cause each parameter to change up or down. However, the overall effect is a net increase in the rates of 3.3 percent due to compilation of all the changes within the different parameters.

On a motion by Norma Cusick, seconded by Jeff Morgan, the Board approved the 2018 Western Lehigh sewer rates (6-1). Deana Zosky opposed procedurally stating that she does not approve anything she has just received and has not yet reviewed. Liesel Gross noted that the rates will be finalized as part of the budget process, and adopted formally via the budget approval.

Suburban Division – 2017 Water Meter Replacement Project

Chuck Volk gave an overview of the project that is to replace and upgrade older and non-functioning water meters, both residential and non-residential, and reading equipment to increase meter reading accuracy and efficiency. All meters will be upgraded to the most current radio read capability. Some Board discussion followed. Mr. Volk is asking for approval of the Capital Authorization for the Construction Phase in the amount of \$1,668,800.00 which includes the General Construction Contract to Core and Main LP (f/k/a HD Supply Waterworks, LTD) in the amount of \$1,380,762.70, Meter Reading Upgrade Direct Purchase to Core and Main LP in the amount of \$28,000.00, and Large Meter Direct Purchase to Core and Main LP in the amount of \$120,000.00. The project will be funded by the Suburban Water Division.

Kevin Baker asked if the staff had completed a cost-benefit analysis of this project or a review of any potential return on this investment. Mr. Volk stated that no specific analysis was completed, but that the project was expected to improve metering accuracy, which should have an effect of increasing billable water volumes. Ed Klein also responded that this project was funded by the 2017 bond issue so the impact to the Authority's finances is already incorporated into the budget process. Mr. Baker acknowledged this may be the case but encouraged the Authority staff to add this type of analysis into the routine for prioritizing and presenting capital projects.

On a motion by Linda Rosenfeld, seconded by Norma Cusick, the Board approved the Capital Authorization for the Construction Phase in the amount of \$1,668,800.00 which includes the General Construction Contract to Core and Main LP (f/k/a HD Supply Waterworks, LTD) in the amount of \$1,380,762.70, Meter

Reading Upgrade Direct Purchase to Core and Main LP in the amount of \$28,000.00, and Large Meter Direct Purchase to Core and Main LP in the amount of \$120,000.00 (7-0).

Design Phase Change Order – Park Pump Station Upgrade

Chuck Volk summarized the project stating the design phase change order requested is to capture additional design scope items that were unforeseen at the commencement of design phase. The Authority had requested the design engineer, Whitman, Requardt and Associates, LLP (WRA), to complete additional evaluations of the pump station capacity and scenarios for increases in capacity. Mr. Volk is asking for approval of the Capital Project Authorization – Contract Amendment No. 1 – Whitman, Requardt and Associates, LLP – design phase change order in the amount of \$44,406.00.

On a motion by Norma Cusick, seconded by Jeff Morgan, the Board approved the Capital Project Authorization – Contract Amendment No. 1 – Whitman, Requardt and Associates, LLP – design phase change order in the amount of \$44,406.00 (7-0).

MONTHLY FINANCIAL REVIEW

The monthly financial review for August 2017 was prepared by Ed Klein and attached to the agenda. There were no questions or comments.

MONTHLY SYSTEM OPERATIONS OVERVIEW

John Parsons gave an overview of the monthly System Operations Overview report for August 2017. Mr. Parsons also reviewed on-going projects under the “Other Highlights” section. Regarding the Watershed Flow Monitoring program, Scott Bieber asked if the Authority consulted with the U.S. Geological Survey (USGS) regarding installation of additional stream gages. Mr. Parsons replied that the Authority is looking into it even though they are costly. Mr. Bieber said it’s important for the reports to be accessible to the public and the USGS gages would accomplish that. Mr. Parsons said accessibility of the information is part of the project.

Mike Siegel, resident of Lower Macungie, encouraged the Board to post the data from the flow meters on line making the information available to not only residents but to public agencies especially during times of flooding on Spring Creek Road.

STAFF COMMENTS

None.

SOLICITOR’S COMMENTS

None.

PUBLIC COMMENTS / OTHER COMMENTS

Vice Chairman Bieber stated his concern regarding fracking waste. In a new report, the Delaware River Basin Commission stated the commission will not be allowing fracking in any of its regions but is considering new regulations on fracking wastewater to be discharged at wastewater treatment plants in New York. He asked if the Authority accepted fracking wastewater through its waste hauler program that was discussed at a prior meeting. Pat Mandes responded that the Pennsylvania Department of Environmental Protection (DEP) does not permit wastewater treatment plants in the Commonwealth to accept fracking waste, and the Authority also has a policy not to accept such wastes. Deana Zosky asked for an explanation of the protocol the Authority has implemented to eliminate the risk of potentially having fracking waste discharged at the industrial pretreatment plant (PTP). Ms. Mandes explained the Authority’s protocol and policy for permitting waste haulers. The Authority has a strict policy and a systematic approach in-line with DEP regulations for permitting waste haulers and the generators of the waste, so that the source of the waste must be disclosed

prior to being permitted to discharge at the PTP. In addition, fracking waste is known to be very high in Total Dissolved Solids (TDS), which is a marker the PTP operations staff monitoring continuously, so that any such discharge would be easily and quickly identified.

Mike Siegel stated he is concerned about DEP and DRBC policies and concerned the Authority could be sued by haulers of fracking waste because they will become desperate to dispose of the waste.

Joyce Marin thanked the Board for addressing the issues.

Delwin Fiddler, new resident to the area, asked the Board to protect its precious water and not accept fracking waste.

Vice Chairman Bieber called a break at 2:25 p.m. The meeting reconvened at 2:31 p.m.

EXECUTIVE SESSION

An Executive Session was held at 2:31 p.m. to discuss potential litigation. The Executive Session ended at 2:55 p.m.

ADJOURNMENT

There being no further business, the Vice Chairman adjourned the meeting at 2:55 p.m.

Richard H. Bohner
Secretary

MEMORANDUM

Date: October 9, 2017

To: Authority Board
From: Jason Peters, Charles Volk
Subject: Suburban Division- Water Main Replacement Program
Design Phase & Pipe Prioritization Assessment Program for- Cycles 4-6

MOTIONS / APPROVALS REQUESTED:

No.	Item	Amount
1	Capital Project Authorization – Design Phase & Pipe Prioritization Assessment Program Cycles 4-6	\$655,000
2	Professional Services Authorization – Gannett Fleming, Inc. (1), (2)	\$405,000

- (1) *Included in the Capital Project Authorization.*
- (2) *Does not include Construction phase related engineering services.*

PROJECT OVERVIEW:

The Suburban Division water systems serve multiple municipalities in Lehigh and Northampton Counties. It is the intention of this Project to replace between one and two miles of water main in the Suburban Division per year due to aging infrastructure that has reached the end of its useful life, to prevent excessive leakage or disruptive water main breaks that can impact our customers. This is an on-going program in which Lehigh County Authority (LCA) intends to retain the services of an engineering consulting firm for a 3 year Cycle to assure continuity and efficiencies for the program.

The Project covers Cycles 4-6 which includes approval for a total of four miles of water main to be designed and bid through the term of this authorization. The additional one mile of water main requested beyond the projected four miles is necessary to allow the main replacements to be constructed from intersection to intersection, thus allowing future replacements to be easily constructed minimizing interruptions in service to customers in the area. Additionally, the Project includes the Pipe Prioritization Assessment Program with a projected 5 year plan.

Given the complex nature of this project, replacing mains in a suburban area with many underground facilities, continuous traffic and work restrictions, coordination with municipalities and other outside agencies and private utilities (such as UGI) is critical to obtain the necessary approvals. All main replacements for a given year will be covered by a single construction contract.

FINANCIAL:

The Project will be funded by the LCA Suburban Division.

PROJECT STATUS:

Pending Board approval of the Design Phase for Cycles 4-6

THIS APPROVAL-DESIGN PHASE- CYCLES 4-6

To assure continued continuity and efficiencies LCA Staff recommends retaining the services of Gannett Fleming, Inc. (GF) to provide design related services and the Pipe Prioritization Assessment Program for Cycles 4-6 Program. The following table summarizes the professional services to be performed:

Professional Services ⁽¹⁾
1. Administer the Pipe Prioritization Assessment Program.
2. Prepare the Pipe Prioritization Assessment Report and projected 5 year plan.
3. Coordinate with local municipalities, outside agencies and utilities.
4. Prepare plans and specifications for segments of main to be replaced.
5. Prepare and obtain regulatory and municipal permits as required.
6. Provide bidding services.

(1) THE FOLLOWING SERVICES ARE NOT INCLUDED: The design and permitting of ADA ramps at intersections pursuant to the Americans With Disabilities Act that may be required in some cases by street paving restoration; permitting for railroad borings, creek/river crossings; design of water mains that are affixed to bridges. If deemed necessary, a cost will be negotiated for the required service.

CONSULTANT PROJECT BACKGROUND:

Among other projects, GF is currently our consultant for the AD Main Replacement Project for Cycles 1-6 and the first SD Main Replacement Project for Cycles 1-3. Over the duration of these projects GF and LCA have established an excellent partnership working directly with many key stakeholders at the local and state levels, producing highly detailed and comprehensive projects that have met and exceeded many goals. These goals include areas such as scheduling and planning, permitting approval, local and state department approvals as well as cooperatively working with other agencies and utility owners. All of which have mitigated many potential costs and or delays while providing minimal construction cost change orders.

FUTURE AUTHORIZATIONS: Capital Project Authorization (CPA) Amendment(s) will be presented to the Board at a later date for:

Construction Phase(s): Approvals will be requested separately for each cycle on an annual basis in late March or early April after bids are received.

CAPITAL PROJECT AUTHORIZATION

PROJECT NO.:	SD-W-17-6	BUDGET FUND:	Allentown Div\Water\Capital
PROJECT TITLE:	Suburban 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 type="checkbox"/> Amendment
THIS AUTHORIZATION:	\$ 655,000		

DESCRIPTION AND BENEFITS:

The Suburban Division water systems serve multiple municipalities in Lehigh and Northampton Counties. It is the intention of this Project to replace between one and two miles of water main throughout the division annually. This work will be coordinated with all local and state stakeholders as well as all other outside agencies and private utilities. Also involved is administering and maintaining the Pipe Prioritization Assessment Program along with its projected 5 year plan.

The replacements of these mains are critical for providing increased reliability of water service for our customers by preventing excessive leakage and disruptive water main breaks.

Please reference the cover Memo for additional information.

Authorization Status:

+

REQUESTED THIS AUTHORIZATION	
Design Phase	
Staff	\$100,000
Engineering Consultant Pipe Prioritization Program, Design, & Bid phase Services	\$405,000
Miscellaneous ⁽¹⁾	\$75,000
Contingencies	\$75,000
Total This Authorization	\$655,000

Future Authorization	
Construction Phase	\$5,500,000

Total Estimated Project	\$6,155,000
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(1) Includes subsurface investigations such as geo-tech work, soft digs, ground penetrating radar if required; also permit fees and other miscellaneous costs.

REVIEW AND APPROVALS:

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



Lehigh County Authority

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

PROFESSIONAL SERVICES AUTHORIZATION

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

Date: October 9, 2017

Requested By: Jason Peters

Approvals

Department Head: _____

Chief Executive Officer: _____

Suburban Division – Water Main Replacement Program – Design Phase Cycles 4-6

Gannett Fleming, Inc. will perform the design and bid related services for Cycles 4-6 of the Suburban Division – Water Main Replacement Program in the following Professional Services.

Professional Services ⁽¹⁾
1. Administer the Pipe Prioritization Assessment Program.
2. Prepare the Pipe Prioritization Assessment Report and projected 5 year plan.
3. Coordinate with local municipalities, outside agencies and utilities.
4. Prepare plans and specifications for segments of main to be replaced.
5. Prepare and obtain regulatory and municipal permits as required.
6. Provide bidding services.

(1) THE FOLLOWING SERVICES ARE NOT INCLUDED: The design and permitting of ADA ramps at intersections pursuant to the Americans With Disabilities Act that may be required in some cases by street paving restoration; permitting for railroad borings, creek/river crossings; design of water mains that are affixed to bridges. If deemed necessary, a cost will be negotiated for the required service.

Design Phase:

Cost Estimate (not to be exceeded without further authorization): \$405,000

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

(For Authority Use Only)

Authorization Completion:

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



Lehigh County Authority

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

MEMORANDUM

Date: October 9, 2017

To: Lehigh County Authority Board

From: Edward Hoyle, Chief Engineer

Subject: Allentown Division- Schantz Spring Exposed Main Replacement
Construction Phase

MOTIONS /APPROVALS REQUESTED:

No.	Item	Amount
1	<u>Capital Project Authorization:</u> Construction Phase	\$261,040
2 *	<u>Contract Award:</u> General Construction – Michels Civil a Division of Michels Corporation	\$205,040
3 *	<u>Professional Services Authorization:</u> Construction Engineering and Management Services Amendment No. 2 – <i>ARRO Consulting, Inc.</i>	\$7,000

(*) Included in Capital Project Authorization

PROJECT OVERVIEW:

This project involves the replacement of approximately 110 linear feet of 1903 vintage 30-inch diameter water main that conveys water from Schantz Spring to the Water Filtration Plant (WFP), including demolition of concrete and wood structures, erosion and sedimentation control, and restoration. The water main will be replaced on the county’s property at Cedarbrook nursing home where the culvert supporting the pipeline across a swale from I-78 has been damaged.

FUNDING:

The project will be funded by the LCA Allentown Division.

PROJECT STATUS:

LCA obtained all easements, approvals and permits required for the Construction Phase of this project.

THIS APPROVAL - CONSTRUCTION PHASE:

Includes the replacement of approximately 110 linear feet of 30-inch diameter water main and miscellaneous work.

BIDDING SUMMARY - CONSTRUCTION CONTRACT:

The project was advertised for bid on August 23, 2017. A mandatory pre-bid meeting was held on September 6, 2017, and bids were opened on September 20, 2017. Bid results are as follows:

General Construction	
Bidder	Amount
<i>Michels Civil a Division of Michels Corporation</i>	\$205,040.00
CMR Construction	\$214,580.00
Joao & Bradley Construction Co., Inc.	\$227,500.00

Michels Civil a Division of Michels Corporation (Harrisburg PA) was awarded the LCA contract for replacement of about 2,000' of 30-inch main as part of the Schantz Spring Main Replacement Project in Martin Luther King Blvd. near the Water Filtration Plant. A reference check for that project did not identify any negative issues and the firm has completed numerous projects of similar size and nature. Therefore, we recommend awarding the General Construction contract to Michels Civil a Division of Michels Corporation subject to the receipt of the necessary bonds, insurance and other required documentation.

PROFESSIONAL SERVICES:

ARRO Consulting, Inc., the design consultant, will provide Construction Engineering and Management related services for the construction phase of the project. The work will generally include:

- Coordinate the issuance and receipt of all contract documents.
- Conduct a pre-construction meeting and prepare and distribute meeting minutes.
- Review all contractor submittals in accordance to the contract documents.
- Provide interpretations and clarification of the contract documents to all requests for information.
- Stake out the access easement obtained from the county.
- Review, prepare and recommend change orders as necessary.
- Prepare and distribute pay estimates based upon unit price item quantities.
- Prepare record drawings.
- Prepare punch list and closeout documents.
- Coordinate and attend post-construction site visit and walk over.

LCA will provide the construction inspection.

The ARRO construction phase Amendment No. 2 reflects their previously authorized design phase base bid of \$18,565 and Amendment No. 1 for \$1,500 to prepare the DEP PWS permit application. In addition, ARRO was authorized during the design phase to perform a full wetlands evaluation as required by the Lehigh County Conservation District as part of the E&S control plan approval process (\$2,800) and bidding services as detailed in their initial proposal

but not separately authorized by an amendment (\$2,700). The total authorization prior to the construction phase was \$25,565.

A Professional Services Authorization is attached for Board approval.

SCHEDULE:

Assuming approval of the Construction Phase at the October 9, 2017 Board meeting, all work is anticipated to be operational by January 31, 2018.

FUTURE AUTHORIZATIONS:

No future authorizations are anticipated at this time.

CAPITAL PROJECT AUTHORIZATION

PROJECT NO.:	N/A	BUDGET FUND:	Allentown Div\Water\Capital
PROJECT TITLE:	Allentown Division – Schantz Spring Exposed Main Replacement- Construction Phase		PROJECT TYPE:
		<input checked="" type="checkbox"/>	Construction
		<input type="checkbox"/>	Engineering Study
THIS AUTHORIZATION:	\$261,040	<input type="checkbox"/>	Equipment Purchase
To Date (W/Above)	\$300,170	<input type="checkbox"/>	Amendment

DESCRIPTION AND BENEFITS:

This project involves the replacement of approximately 110 linear feet of 1903 vintage 30-inch diameter water main that conveys water from Schantz Spring to the Water Filtration Plant. The water main will be replaced on the county’s property at Cedarbrook.

The replacements of this main will provide increased reliability of water service for our customers.

Please reference the cover memo for additional information.

Previous Authorizations	
Design Phase (Handled administratively)	\$39,130

REQUESTED THIS AUTHORIZATION	
Construction Phase	
Staff	\$15,000
Professional Services	
Construction Administration & Closeout	\$7,000
General Construction Contract	\$205,040
Miscellaneous	\$4,000
Contingency	\$30,000
Total This Authorization	\$261,040

Total Estimated Project	\$300,170
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REVIEW AND APPROVALS:

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



Lehigh County Authority

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

**PROFESSIONAL SERVICES AUTHORIZATION
Amendment No. 2**

Professional: ARRO CONSULTING, INC.
649 N. Lewis Road, Suite 100
Limerick, PA 19468

Date: October 9, 2017

Requested By: Edward Hoyle

Approvals

Department Head: _____

Chief Executive Officer: _____

Allentown Division – Schantz Spring Exposed Main Replacement

Previous Authorizations- Design Phase: \$25,565

This Authorization- Construction Phase: \$7,000

ARRO Consulting, Inc. will provide the following construction related Professional Services:

Professional Services
1. Distribute executed contract documents
2. Conduct pre-construction meeting
3. Review catalog cuts/shop drawings
4. Stake out limits of work
5. Review and prepare change orders
6. Prepare record drawings
7. Prepare punch list and closeout documents following substantial completion walk through
8. Participate in PADEP final inspection (if required)

Please reference the cover Memo for additional information.

Construction Phase:

Cost Estimate (not to be exceeded without further authorization): \$7,000

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

(For Authority Use Only)

Authorization Completion:

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

Note: The following language for the “Hauled Waste Disposal at the Pretreatment Plant” is an entirely new section proposed to be added into Lehigh County Authority’s official Rules & Regulations document.

RULES & REGULATIONS FOR SEWERAGE SERVICE

LEHIGH COUNTY AUTHORITY

EFFECTIVE ~~14 JULY 2014~~ 9 OCTOBER 2017

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 8. RATES AND CHARGES
 9. VIOLATIONS AND PENALTIES
 10. MISCELLANEOUS
-

7. HAULED WASTE DISPOSAL AT THE PRETREATMENT PLANT

- a. General: All persons desiring to utilize the Authority's Hauled Waste disposal capability at its wastewater pretreatment plant located at 7676 Industrial Boulevard, Upper Macungie Township, Lehigh County (the “PTP”) to dispose of wastes pumped from on-site domestic waste collection septic systems, holding tanks, package plants, grease traps, domestic or industrial wastewaters, and industrial or municipal sludges must first obtain and maintain various approvals from the Authority and/or the PTP operator. The PTP is managed and operated for the Authority by Operations Management International, a division of CH2M Hill (“CH2M” or “PTP Operator”), who as administrator will be responsible for implementing these regulations. It is understood that some of the rights, responsibilities and powers attributed to the Authority herein will be assigned to the PTP Operator whether or not specifically stated herein.
- b. Guidelines and Procedures. It is intended that these Rules & Regulations shall be augmented by details specified in the *Lehigh County Authority Waste Hauler Program Operating Guidelines* (the “Guidelines”) developed by the Authority management

and the PTP Operator, which Guidelines can be revised as necessary. Although not limited to these topics, the Guidelines shall include topics such as disposal procedures, hours of operation, discharge details, manifests, payment details, hauler and generator permitting process, sampling protocols, billing and collections procedures, etc. The Guidelines are to be interpreted and enforced in accordance and tandem with these Rules & Regulations.

- c. Violations. If a waste hauler violates any order of the Authority, PTP Operator, governmental regulatory agency, or otherwise fails to comply with any provisions of a permit, or discharges sewage, industrial wastes, or other wastes into the PTP contrary to the provisions of a permit, Federal, state or local pretreatment requirements and/or law, the Authority may take any and all necessary remedies available to it, including without limitation:
 - (1) revoke a waste hauler's and/or Generator's right to dispose wastes at the PTP; and
 - (2) commence an action in a court of record (Lehigh County) for appropriate legal and equitable relief, in which such action, the Authority may recover from the defendant reasonable attorney fees, court costs, deposition and discovery costs, expert witness fees and other expenses of investigation, enforcement action, administrative hearings and litigation, if the Authority prevails in the action or settles at the request of the defendant; and
 - (3) assess any fines and penalties allowed under these Rules & Regulations or by other government statute or regulation.

In addition, any waste hauler who violates any of the provisions of a permit or these rules and regulations shall become liable for any expense, loss, damages to the Authority, PTP Operator, City of Allentown or to the PTP occasioned by such violation.

The remedies described in this section shall be in addition to any other remedies for violations that may be further detailed in the program Guidelines.

FINANCE & ADMINISTRATION

ACTION ITEMS

1. **2018 Budget, Suburban Water Rates & 2018-2022 Capital Plans – October 9 & 23, 2017**

The Authority staff will continue to refine the 2018 Budget as the Suburban Water Rate Study is being completed in October. The final budget, rate study, and capital plan will be presented to the Board for consideration of adoption at its October 23, 2017 meeting. The Board should also discuss whether this meeting should be held at night to allow for public participation, and if an additional meeting on October 30, 2017 should be advertised to allow for final adoption of the budget in the event that final changes are required.

DISCUSSION ITEMS

INFORMATION ITEMS

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

CERTIFICATES OF DEPOSIT						
24-Jul-17			Gross	Date of	Date	Net Rate
Fund	Bank	Location	Amount	Purchase	Due	%
LLRI CR	American Commerce Bank, National Assn	Bremen, GA	245,000.00	7/7/17	4/8/19	1.50
LLRI CR	First National Bank of Omaha	Omaha, NE	245,000.00	7/12/17	7/12/19	1.65

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

WATER

ACTION ITEMS

1. **Suburban Division - Water Main Replacement Program Cycle 4-6 – October 9, 2017**

The program consists of Cycles 4-6 of the Suburban Division Water Main Replacement Program. It is the intention of this Program to replace approximately one mile of water main in the Suburban Division per year due to aging infrastructure that has reached the end of its useful life to prevent excessive leakage or disruptive water main breaks that can impact our customers. Authorization for design and bid phases for cycles 4-6 is to be requested at the October 9, 2017 Board meeting.

2. **Allentown Division – Schantz Spring Exposed Main Replacement – October 9, 2017**

This project will replace approximately 110 linear feet of the 30-inch diameter water main that supplies water from Schantz Spring to the Water Filtration Plant on the county's property at Cedarbrook where the line crosses a swale from I-78. The project will demolish the concrete culvert that carries the pipe over the swale and install a new pipe under the swale. The Public Water Supply Permit was issued by DEP in August 2017. The project will be funded by the LCA Allentown Division. Bids were received on 9/20/17 and a recommendation for construction phase authorization will be requested at the October 9 Board Meeting.

DISCUSSION ITEMS

INFORMATION ITEMS

1. **Allentown Division - Water Filtration Plant / Water Distribution: Flood Pump Replacement**

Upgrades to the existing stormwater pump/control for the WFP and D&C parking lot were needed due to equipment age. The existing flood pump (centrifugal) was replaced with a new submersible flood pump. Miscellaneous electrical upgrades also occurred. In addition, a new raw water magmeter and two new chemical feed tanks were installed at the Water Filtration Plant. Board Approval was granted at the January 23rd Board Meeting. Construction began in April of 2017 and was completed in late September. This capital project is funded by the LCA Allentown Division. **(No Change)**

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

As part of the Pennsylvania Rapid Bridge Replacement Program, the replacement of the Cedar Creek Bridge on Hamilton Street has required the relocation of approximately 500 linear feet of water main. The Design phase was approved at the December 2016 Board meeting. As of June 2, 2017 Gannett Fleming our Engineer has submitted their design of the relocation to the state and is awaiting their approval. 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. **(No Change)**

3. **Allentown Division – Pre-Lease Valve Replacements**

The project scope includes the replacement of approximately 50 inoperable valves in multiple locations throughout the City that existed prior to the lease settlement. The bid was authorized for award at the June 26, 2017 board meeting. As of September 29, 2017 our contractor has completed nearly 60% of their contract with LCA. The project is classified as uncompleted work and will be funded by the City of Allentown.

4. **Allentown Division – Schantz Spring Main Replacement**

The project is the replacement of approximately 2,000 linear feet of 1903 vintage 30-inch diameter water main in Martin Luther King, Jr. Boulevard from the Water Filtration Plant heading

towards Schribers Bridge. This project also includes addressing other leaks that were identified during the "SmartBall" leak detection work completed by the City of Allentown (COA). Bids were received on July 13, 2017. The Board approved the construction contract at the July 24, 2017 Board meeting, Notice to Proceed was issued August 29, 2017, and construction will begin in late September 2017. This Project is identified as Schedule-7 Work and will be funded by LCA Allentown Division. **(No Change)**

5. **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. Comments were returned on the Public Water Supply (PWS) permit application package received from the consultant. Design and permitting of the pump station will be completed by the end of 2017, and the station will be constructed in 2018 **(No Change)**.

6. **Suburban Division - Water Main Replacement Program Cycle 3**

The project consists of the replacement of approximately 1 mile of aged and/or failing Cast Iron water main. The design phase of this project was approved at the January 2015 Board meeting. Bids were received on July 13, 2017. The Board approved the construction contract at the July 24, 2017 Board meeting, Notice to Proceed was issued August 29, 2017. As of September 29, 2017 our contractor has completed nearly 75% of their contract with LCA.

7. **Suburban Division - Water Main Replacement Program Cycles 1 & 2**

The project consists of the replacement of 2.85 miles of aged and/or failing Cast Iron water main. The Construction phase was approved at the 4/11/16 Board meeting. As of late July 2017 the contractor, Anrich Inc., has completed all punch list item deficiencies. LCA is under discussions with Anrich, Inc. to close out the project **(No Change)**.

8. **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 pump water from the Central Lehigh Division (CLD) to the 125-lot Kohler Tract subdivision in Upper Milford Township. We are preparing to make offers to property owners where easements are needed. Design of the pump station is under way and the Public Water Supply (PWS) permit application package is being revised. Design of the water line and easement acquisitions are in progress **(No Change)**.

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. A pre-construction meeting was held in August and work is anticipated to begin in fall 2017 **(No Change)**.

10. **Suburban Division – Asset Management Facility Upgrades**

Project includes the construction of improvements that were identified and prioritized in the Building Condition and Assessment Study prepared by D'Huy Engineering in accordance with LCA's asset management goal. The project scope includes structural, HVAC, and electrical/code improvements to be performed on facilities that were assigned a high risk score (high consequence and probability of failure). Nine (9) water facilities and two (2) wastewater facilities are part of the project scope. The project bids were opened on May 30, and authorization to award was given at the June 26, 2017 Board meeting. Construction is anticipated to be completed by the end of 2017 **(No Change)**.

11. 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 is anticipated to begin in October 2017 and be completed in early 2018.

12. Suburban Division – Well Abandonments

The project consists of the abandonment of six wells that are no longer used due to water quality issues: WL4, WL7, NL7, NL8, NL9, and NL10. Authorization to award a professional services agreement to ARRO Consulting Engineers was given at the July 24, 2017 Board meeting. Construction began in September 2017 and is expected to be substantially complete by mid-October.

Suburban Division – 2017 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. Construction is expected to begin in November 2017.

13. Suburban Division – Route 309 Crossing at Sand Spring Road – October 9, 2017

A 12” water line will cross Route 309 through a previously installed 24” casing. Completion of this line will bring public water to the property line of Lehigh Carbon Community College. The design phase was completed. PennDot Highway Occupancy Permits have been obtained. An easement agreement was sent to LCCC for their signatures. The project is proposed to be constructed as part of the 2017 Suburban Division main replacement project, via contract change order. Authorization for construction phase is to be requested at the October 23, 2017 board meeting.

14. Developments

Water system construction is occurring in the following developments:

- Fields at Indian Creek, Phase 2, 35 private, age-restricted/senior residential units (sfd), UMiIT, water & sewer
- Highgate, Phase 3 (Dunbar Tract) SF4/5, 17 residential lots (sfd), UMT
- Spring View (Bortz Tract), 14 commercial units, UMT
- Trexler Business Center, 1 Commercial Lot with 6 commercial buildings, LMT
- Trexler Fields, Phase 1B/8/9, 100 residential lots (sfa), UMT

Water system plans are being reviewed for the following developments:

- 67 Werley Road, 112 apartments & clubhouse, UMT
- Ciocca Audi, 1 additional commercial building at existing business, LMT
- Diocesan Pastoral Center, 2 commercial lots, 3 additional lots and residual lot for existing cemetery, LMT
- Farr Tract, 17 residential lots (sfd), LMT
- Grant Street Townes, 18 residential lots (sfa), WashT
- Green Acres Mobile Home Court, master meter 590 existing units (sfd), UMT
- Hickory Park Estates, 3 residential lots (sfd), UMT
- Hillview Farms, 31 residential lots (sfd), LMT/SWT
- Indian Creek Industrial Park, 6 commercial lots, UMiIT, water and sewer
- Kohler Tract, 125 residential lots (sfa), UMiIT, water and sewer
- Lehigh Hills, Lot 5, Phase 1, 273 apartments & clubhouse, UMT

Mary Ann's Plaza, 1 lot with 12 commercial units, NWT
Morgan Hills, 40 residential lots (sfd), WeisT, water and sewer
North Whitehall Commercial Center (Walmart), 5 commercial lots, NWT, water & sewer
Schoeneck Road, Lot 1, 1 lot warehouse, LMT
Shepherd's Corner, 1 commercial lot, LMT
Spring Creek Properties Settlement Subdivision, Lot 1, 1 commercial lot, LMT
Stone Hill Meadows, Phase 2, 85 residential units (sfd), LMT
Weilers Road Twins, 82 residential lots (sfa), UMT
Woodmere Estates, 60 residential units (sfd), UMT

WASTEWATER

ACTION ITEMS

1. **Wastewater Rules and Regulations – October 9, 2017**

In light of the changes being made to restructure the waste hauler program to include a more robust permitting process for water haulers and generators, the Authority's Rules and Regulations for Sewerage Service should be updated to incorporate the program into the Authority's rules. The proposed language, which requires Board approval, outlines the general parameters of the program including establishment of detailed administrative guidelines for the permitting process, billing, assessing penalties, and more.

DISCUSSION ITEMS

INFORMATION ITEMS

1. **Allentown Division – Manhole Collars with Water Tight Frame and Covers: Cycle 4**

This project will permanently secure the frame and cover of approximately 10 aged brick manholes identified by current LCA staff. This work will eliminate inflow from entering these manholes and eliminate the potential for sanitary sewer overflows (SSOs) from these manholes. A kick-off meeting has occurred with the City. Board approval for construction was granted at the June 26, 2017 Meeting. Construction began at the end of July 2017 and was completed in early August 2017. The project is identified as Administrative Order and will be funded by the City. This is the final cycle of the project. **(No Change)**

2. **Allentown Division – Wastewater Treatment Plant: Digester Cover Replacements**

This project involves the cover replacement of both the Primary Digester No. 1 and the Secondary Digester (the cover for Primary Digester No. 2 was previously replaced in 2010). A Major Capital Improvement (MCI) Conceptual Design has been approved by the City. Board approval of the construction phase was received at the 2/8/16 Board Meeting. The new Secondary Digester cover was installed in late October 2016 and its construction was completed in late February of 2017. The new Primary No. 1 Digester Cover is also now installed and is expected to be fully operational by October 2017. This Project is identified in the Lease as a Schedule 7 (required) project and will be funded by the LCA Allentown Division. **(No Change)**

3. **Allentown Division – Wastewater Treatment Plant: WWTP Security Upgrades**

This project involves the installation of security related equipment upgrades at the Kline's Island Wastewater Treatment Plant (WWTP). Enhanced security will further reduce the risk of breaches that may impair the operation of the facility. Board Approval of the CoStars Agreement with Tyco (to purchase the security cameras, doors, etc. upfront) was granted at the January 23, 2017 Board Meeting. Approval of the electrical contractor to install the security equipment was granted at the May 22, 2017 Board Meeting. Construction of the project began in late July of 2017 and will be completed in late October. This Project is identified as an Uncompleted Work (UW) in the Lease Agreement and will be funded by the City of Allentown.

4. **Allentown Division – Wastewater Treatment Plant: Electrical Substation Replacements**

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. Approval of the construction contract is tentatively scheduled to be requested at the December 11, 2017 Board Meeting. Construction of the project is expected to begin in January of 2018 and be completed by early 2019. This Major Capital Project will be funded by the LCA Allentown Division.

5. Allentown Division – Wastewater Treatment Plant: Miscellaneous 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 late 2017. Construction approval was granted at the August 28, 2017 Board meeting. Construction should be completed by 1Q 2018. This capital project will be funded by the LCA Allentown Division. **(No Change)**

6. 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. Construction is expected to begin in early 2019 and is expected to be complete in early 2021, subject to regulatory review and approval.

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 and will be advertised for bid in October for a bid opening in November.

8. 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 is being completed. **(No Change)**

9. 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. The contractor is installing the meter vault. Delivery of the mechanical screen is anticipated towards the end of October.

10. Suburban Division – SCARP

The City is no longer pursuing the execution of a MOU among the City and the City Signatories as a result of at least one Signatory stating they would not sign it. Discussions are occurring internally and with the City of Allentown on what impact the lack of an MOU will have on the basis of payment, the common projects, and the submission to EPA in order to determine if an MOU is necessary for Phase 1 or if an agreement between LCA and the City would be appropriate.

11. Suburban Division – Park Pump Station Upgrade Design

The Park Pump Station is to be upgraded to address station capacity and age/condition issues, and prolong the service life of this critical facility. The existing pumps are to be replaced with dry pit submersible units, existing motors are to be replaced with high efficiency units, and the old

rheostat type motor drives are to be replaced with variable speed drives. The MCC is also to be replaced along with miscellaneous mechanical improvements. The DEP Part 2 Water Quality Management Permit application was submitted to DEP in June 2017. Design completion is anticipated for late 2017. **(No Change)**

12. **Suburban Division – Tank Painting Project – Heidelberg Heights Wastewater Treatment Plant**

This project is part of LCA's Asset Management Program and involves the draining, cleaning, surface preparation, and painting of the interior and exterior Sequencing Batch Reactor tanks at the Heidelberg Heights wastewater treatment plant. The exposed tanks are 16 years old and require recoating to prevent degradation from the corrosive effects of wastewater and wastewater gases, and the environment. Bids were opened in May and the project was authorized for bid at the June 12, 2017 board meeting. Construction is anticipated to finish by Fall 2017. **(No change)**

13. **Suburban Division – Buss Acres Pump Station Replacement Design**

This project includes the consolidation of two well stations into a single double pumping system and new water storage tank, which will replace two hydropneumatic tanks that have exceeded their service life and are not in compliance, along with addressing numerous system deficiencies. Feasibility and costs for installing fire protection and radon removal systems will be evaluated. The design phase was authorized at the 8/28/17 board meeting and the project is anticipated to be ready for bid in Spring 2018 **(No Change)**.