



## BOARD MEETING AGENDA – February 13, 2017

1. Call to Order
  - *Public Participation Sign-In Request*
2. Review of Agenda / Executive Sessions
3. Approval of Minutes
  - *January 23, 2017 Board meeting minutes*
4. Public Comments
5. Action / Discussion Items:

### **FINANCE AND ADMINISTRATION**

#### **WATER**

#### **WASTEWATER**

- *Wynnewood and Sand Spring Wastewater Treatment Plant Replacement (yellow)*
  - *Allentown Division – Kline’s Island WWTP Phase 1 AO Improvements: Conceptual Design Development Amendment No. 1 (blue)*
  - *Flow Metering / Rehabilitation Effectiveness Monitoring (green)*
  - *Administrative Order Update on Cost-Sharing Agreements & Methodology – Discussion only*
6. Monthly Project Updates / Information Items (1<sup>st</sup> Board meeting per month)
  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.*  
February 27, 2017  
March 13, 2017  
March 27, 2017

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 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**  
**January 23, 2017**

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The Regular Meeting of the Lehigh County Authority was called to order at 12:00 p.m. on Monday, January 23, 2017, Chairman Brian Nagle presiding. Other Members present at the commencement of the meeting were: Linda Rosenfeld, Richard Bohner, Norma Cusick, and Scott Bieber. Deana Zosky was on the conference phone and did not participate in any discussion or vote. Authority Staff present were Liesel Gross, Ed Klein, Pat Mandes, Brad Landon, John Parsons, Chuck Volk, Phil DePoe and Lisa Miller.

**REVIEW OF AGENDA**

Liesel Gross stated there are no changes to the Agenda; however, there will be two items for Executive Session. One item regarding potential litigation and another item regarding personnel.

Chairman Nagle stated that LCA received a Certificate of Achievement for Excellence in Financial Reporting from the Government Finance Officers Association for its Comprehensive Annual Financial Report for the Fiscal Year ended December 31, 2015.

Kevin Baker arrived at 12:03 p.m.

**APPROVAL OF MINUTES**

**January 9, 2017 Regular Meeting Minutes**

Richard Bohner suggested a correction on the first page, under Public Comments, that after Mike Siegel's name it be noted that he is a resident of Lower Macungie Township since he is giving detailed information and there is no indication of his status. Also under Public Comments, second paragraph, third sentence, the word *by* should be added after the word *on*. Mr. Bohner also asked to have the words *and sitting in the room* be removed from the first sentence under Union Contracts & Employee Manual Updates since it is obvious from the rest of the sentence and, on Page 2, the last sentence, the word should be *flows* not flow.

On a motion by Richard Bohner, seconded by Norma Cusick, the Board approved the Minutes of the January 9, 2017 meeting as revised with the above noted changes (6-0).

**PUBLIC COMMENTS**

Janet Persing, resident of Lower Macungie Township, commented that she is concerned about the groundwater levels. She also commented on an event that will be hosted by the Lower Macungie Library called Cherries, Chocolates & Jazz on February 25, 2017. Ms. Persing suggested someone from the Authority attend as this may be a networking opportunity for the Authority to meet individuals interested in local groundwater issues. She will provide Ms. Gross with the information on the event.

**ACTION AND DISCUSSION ITEMS**

Ted Lyons and Tom Muller arrived at 12:10 p.m.

**Allentown Division – Water Filtration Plant / Water Distribution: Flood Pump Replacement**

Phil DePoe gave an overview of the project which consists of the installation of a new submersible flood pump at the Allentown Division Distribution & Collection Building parking lot. In addition, a new magmeter and two new chemical feed tanks will be replaced and installed at the Water Filtration Plant. This project will be funded by the LCA Allentown Division. Mr. DePoe is requesting Board approval of the Capital Project Authorization – Construction Phase in the amount of \$329,500.00 which includes the Professional Services Authorization to D'Huy Engineering in the amount of \$28,200.00 and awarding the General Contract to Zimmerman Environmental in the amount of \$221,300.00.

The Board questioned the purpose of the the flood pump and asked for an explanation of the magmeter. John Parsons explained that the flood pump is needed to remove water from the Distribution & Collection parking lot during heavy rains as the parking lot acts like a stormwater retention area. The magmeter is an

electromagnetic meter used to measure the volume of water at the Little Lehigh Creek intake at the water filtration plant.

Kevin Baker questioned how the Authority takes care of spare parts when a pump is ordered. John Parsons explained that the manufacturer will provide some parts which are then inventoried as they are used.

On a motion by Norma Cusick, seconded by Linda Rosenfeld, the Board approved the Capital Project Authorization – Construction Phase in the amount of \$329,500.00 which includes the Professional Services Authorization to D'Huy Engineering in the amount of \$28,200.00 and awarding the General Contract to Zimmerman Environmental in the amount of \$221,300.00. (8-0).

Ted Lyons asked if all projects are bonded with a Bid and Performance bond to which Mr. DePoe replied yes.

### **Employee Compensation Study – Review & Discussion of Preliminary Results**

Liesel Gross introduced Kathy Martin, Human Resources Manager for the Authority, and also Chet Mosteller of Mosteller & Associates. Mr. Mosteller conducted a preliminary compensation study in 2016 for the Authority and was present to report on those preliminary results and also get direction from the Board on the future of the Authority's compensation program. Ms. Gross reported that the Authority's current compensation program and pay ranges have been in place since 2011 with one minor adjustment in 2016. Mr. Mosteller distributed a report showing an overview of the study results and reviewed it with the Board. In response to a question from the Board, Kathy Martin explained the components of the Authority's compensation program including base pay, benefits, pension and time off. Liesel Gross reviewed the Authority's annual performance review system and explained that pay increases for all non-union employees are determined based on results of the performance evaluation along with general guidelines provided to managers about awarding merit increase for employees in different segments of the pay range.

Regarding the future adjustments to the compensation program, Mr. Mosteller recommended that the Authority's pay ranges be designed around the 50<sup>th</sup> percentile of the market-based survey results. Board discussion followed, with most Board members agreeing that a 50<sup>th</sup> percentile target is appropriate for the Authority, since employee expenses are paid through rates to water and sewer customers. Scott Bieber suggested that the Authority's wage structure may need to be adjusted upward in order to retain and attract the best employees. He also commented that no employee should be paid below the 25<sup>th</sup> percentile.

Kevin Baker asked about the wage compression that may exist between union and non-union pay scales. Mr. Mosteller explained in more detail how wage compression impacts the Authority and offered several solutions which will be considered in the final report to be prepared and delivered within the next two months.

### **Allentown Division – Wastewater Treatment Plant: WWTP Security Upgrades**

Phil DePoe gave an overview of the project. The equipment will be purchased through the COSTARS program which is a cooperative purchasing program through the Commonwealth of Pennsylvania. The work is an Uncompleted Work (UW) project under the lease agreement and will be paid by the City of Allentown. The City has reviewed and approved the project. Mr. DePoe is requesting awarding the contract for the purchase of security equipment through PA COSTARS program supplier – Tyco Integrated Security in the amount of \$68,980.70.

On a motion by Tom Muller, seconded by Norma Cusick, the Board approved award of the contract for the purchase of security equipment through PA COSTARS program supplier – Tyco Integrated Security in the amount of \$68,980.70 (8-0).

### **MONTHLY FINANCIAL REVIEW**

Ed Klein gave an overview of the December 2016 Financial Report.

**SYSTEM OPERATIONS OVERVIEW**

John Parsons reviewed the December 2016 Operations report that was attached to the Board agenda. The report noted that Lehigh County is still under a Drought Warning. Chuck Volk explained the sanitary sewer overflow that occurred in Lower Macungie Township in December was a result of a contractor losing a long cable inside the Western Lehigh Interceptor, which then formed a blockage in the line near Krick Lane. Authority crews were dispatched to assist the contractor with removing the blockage, and the Authority will seek compensation from the contractor for expenses incurred.

**STAFF COMMENTS**

Liesel Gross commented on the video equipment being installed in the conference room. Installation is expected to be complete by the next Board meeting at which time a trial run of the system will occur. Also, the public opinion survey received 33 responses so far and the results will be discussed at a future Board meeting.

**SOLICITOR'S COMMENTS**

Brad Landon reminded the Board that reorganization will need to be addressed at the February meeting. Brian Nagle reported that Tom Muller has been appointed to address the officer nomination process. Tom Muller said that he will be contacting Board members asking for their interest in either maintaining their current position or seeking another position on the Board.

**PUBLIC COMMENTS / OTHER COMMENTS**

Art Persing, resident of Lower Macungie Township, asked if the number of injury accidents listed on the December System Operations report are all lost time reportable. John Parsons said the Authority reports all accidents whether they are incidental or lost time. Neither of the incidents reports for December were lost time accidents. Liesel Gross stated that the annual Risk Management report will be on the agenda in February, which will provide details and breakdowns of the Authority's accident experience in 2016.

Chairman Nagle called a break at 1:56 p.m. The meeting reconvened at 2:00 p.m.

**EXECUTIVE SESSION**

Chairman Nagle called an Executive Session at 2:00 p.m. to discuss potential litigation and personnel. No motions were expected.

Authority Staff were excused prior to the discussion regarding personnel.

The Executive Session ended at 3:02 p.m.

**ADJOURNMENT**

There being no further business, the Chairman adjourned the meeting at 3:02 p.m.

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Richard H. Bohner  
Secretary



**Lehigh County Authority**

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**MEMORANDUM**

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**Date:** February 13, 2017

**To:** Authority Board

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

**Subject:** Sand Spring and Wynnewood Wastewater Treatment Plant Upgrade Project, Suburban Division

**MOTIONS /APPROVALS REQUESTED:**

No.	Item	Amount
1	<u>Capital Project Authorization - Design &amp; Bid Phase</u>	\$340,000
2	<u>Contract Award (consultant):</u>	\$280,500
**	<ul style="list-style-type: none"> <li>• Design &amp; Bid Phase – Entech Engineering, Inc.</li> </ul>	

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

**PROJECT OVERVIEW:**

These two satellite system wastewater treatment plants are developer-constructed facilities between 35 and 40 years ago, consisting of buried steel tanks utilizing extended aeration process. Both facilities were investigated in 2015 as part of a satellite system wastewater treatment plant condition assessment, and both were found to be in poor condition, with the majority of the components at the end of its service life; complete facility replacement was recommended. In order to address the high risk rating of both facilities, the completion of upgrade design is to be performed by the end of 2017. Based on the similarities between the sites, the design of the replacement facilities has been bundled into one project in order to realize economy of scale. A request for design proposals was issued in late 2016, and statement of qualifications and cost proposals were received and reviewed.

**FINANCIAL:**

The Project will be funded by the LCA Suburban Division through each system’s rates.

**PROJECT STATUS**

The Request for Qualifications was issued in November to four (4) local firms with similar size wastewater treatment plant experience. Cost proposals were solicited in December to each firm

and proposals were received on 1/17/17. Cost proposals were reviewed and a recommendation is presented in this memo for award to Entech Engineering.

**THIS APPROVAL:** Design and Bid Phase

**BIDS**

Four (4) engineering firms were invited to submit cost proposals for the project, based on prior firm qualifications and similar project experience. Cost proposals were received on January 17, 2017. The proposal amounts are as shown in Table 1 below:

<b>Table 1 – Bid Results</b>	
<b>Design &amp; Bid Phase</b>	
<b>Consultant</b>	<b>Amount</b>
<b><i>Entech Engineering</i></b>	<b><i>\$280,500</i></b>
Buchart Horn, Inc.	\$333,780
Spotts, Stevens, & McCoy, Inc.	\$353,700
Systems Design, Inc.	\$499,800

Each firm was pre-qualified based on similar project experience. Entech was selected based on cost and qualifications.

**MATERIAL PROCUREMENT:** N/A

**PROFESSIONAL SERVICES :** See attached.

**SCHEDULE**

Assuming approval at the February 13, 2017 Board meeting, the Design phase is anticipated to be complete by December 31, 2017.

**FUTURE AUTHORIZATIONS**

Construction Phase.

## CAPITAL PROJECT AUTHORIZATION

**PROJECT NO.:** SD-S-13 & SD-S-7 **BUDGET FUND:** Sewer Capital

**PROJECT TITLE:** Sand Spring & Wynnewood Wastewater Treatment Plant Upgrade Project **PROJECT TYPE:**

**THIS AUTHORIZATION TO DATE (W/ ABOVE)** \$340,000  
\$340,000

- Construction
- Engineering Study/Design
- Equipment Purchase
- Amendment

**DESCRIPTION AND BENEFITS:**

These two satellite system wastewater treatment plants are developer-constructed facilities between 35 and 40 years ago. Both facilities are at the end of their useful service life, from both a structural and mechanical basis, and complete facility replacements are needed to reduce the consequence and probability of failure. The facility replacement design will utilize wastewater treatment technology that has the lowest life cycle cost, and insures regulatory compliance throughout its projected service life. In order to address the high risk rating of both facilities, the completion of replacement/upgrade design is to be performed by the end of 2017. Based on the similarities between the sites, the design of the replacement facilities has been bundled into one project in order to realize economy of scale.

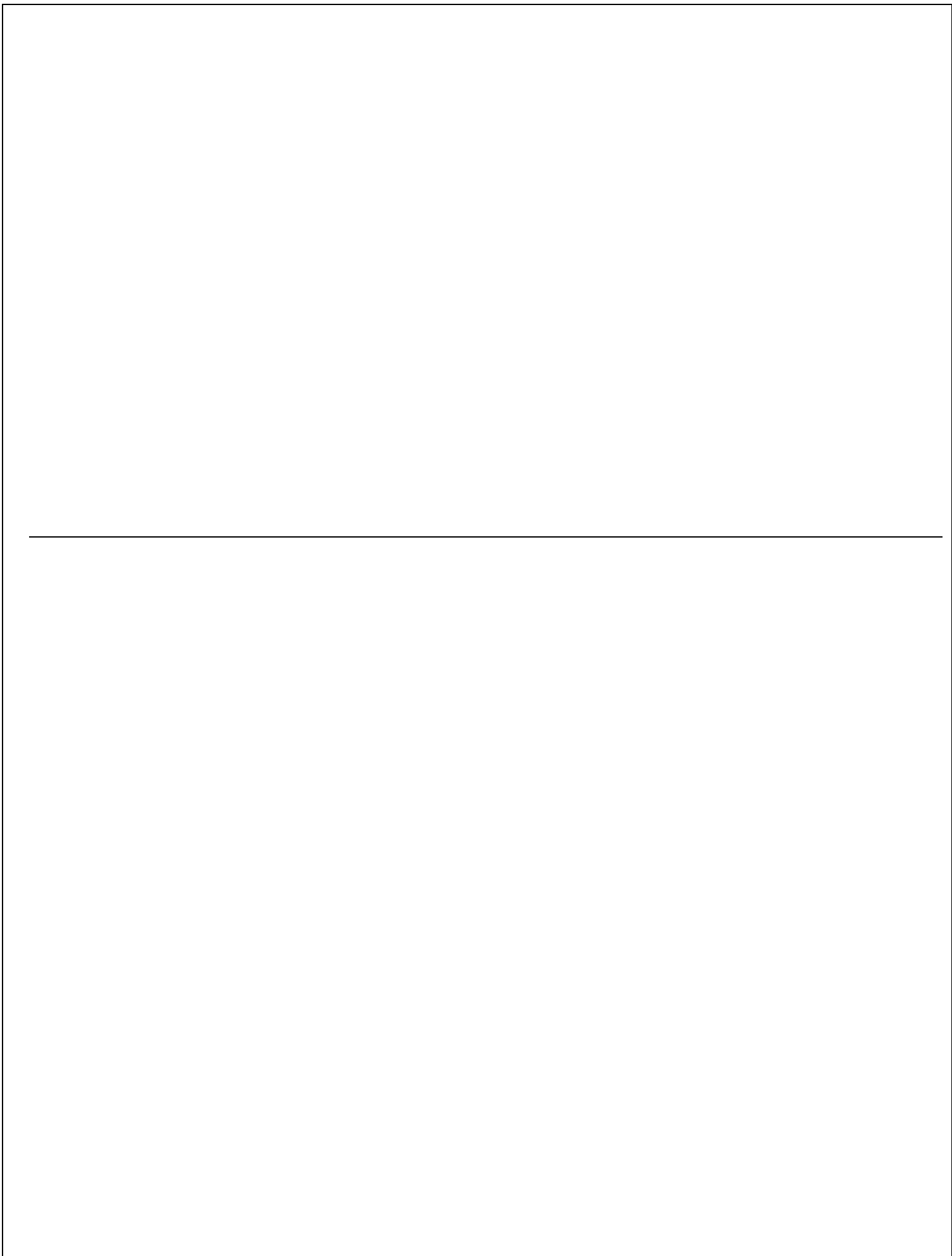
**Authorization Status:**

Phase / Item	Authorizations			Total
	Prior	This	Future	
<b><i>DESIGN &amp; BID PHASE</i></b>				
Staff		<b>\$30,000</b>		\$30,000
Engineering Services		<b>\$280,500</b>		\$280,500
Miscellaneous		<b>\$10,000</b>		\$10,000
Contingencies		<b>\$19,500</b>		\$19,500
Total	\$0	<b>\$340,000</b>	*	\$340,000

*\*note: future authorization unknown pending evaluation*

**REVIEW AND APPROVALS:**

Project Manager	Date	CEO	Date
Capital Works Manager	Date	Board Chairman	Date







Lehigh County Authority

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**PROFESSIONAL SERVICES AUTHORIZATION**

(To be signed by Professional and returned to the Authority)

Professional: Entech Engineering, Inc.  
201 Penn Street  
Reading, PA 19603

Date: February 13, 2017

Requested By: Charles Volk, P.E.

Approvals  
Department Head:  
CEO:

**Description of Services** (Work Scope, Steps, Check Points, etc.):

Sand Spring and Wynnewood Wastewater Treatment Plant Upgrade Project – Design & Bid Phase

Entech Engineering will provide the following services:

**Design and Contract Documents Preparation Phase Tasks:**

1. Wastewater Process Evaluation (pre-design):
  - a. Evaluate wastewater process alternatives for each site based on life cycle cost, performance capabilities, and adaptability to stricter effluent discharge criteria. Include an evaluation of any tertiary treatment required to meet NPDES (and DRBC) discharge requirements.
  - b. Submit treatment process evaluation LCA, which shall be included in a basis of design memorandum; provide justification for recommendation.
  - c. Attend meeting with LCA to review memorandum and design recommendation.
  
2. Site Investigation and Evaluation:
  - a. Conduct site investigation at each facility to determine optimum site location, orientation and layout for replacement plant.
  - b. Conduct environmental walk-through to determine and delineate, if applicable, wetlands and floodplain limits.
  - c. Evaluate re-use of existing outfall structure at each location. For Cost Proposal, assume the location of each plant outfall will not be changed, although the outfall structure may require modification.
  - d. Conduct site survey at each facility to including property boundary, physical features, topography, and utilities.
  - e. Evaluate alignment of new facility influent line and determine tie-in location with existing sewage collection system upstream of the existing plants.
  
3. Prepare Specifications & Plans:
  - a. Provide specifications and plans at 60% and 90% completion levels and at completion of design (bid level) for each facility along with construction cost estimates for LCA review. Provide the Engineer’s Report with the 60% submittal. It is assumed that this report will be the same document as provided to DEP with the WQM Part 2 permit application.
  - b. The specifications prepared shall meet the requirements of Pennsylvania bidding laws.
  - c. Prepare the General Construction and Electrical Construction contract documents (per facility) suitable for bidding. Provide 3 paper copies and 1 electronic copy (per facility) of bid level documents to LCA.
  - d. Prepare a Project Manual for each facility that contains all documents required for bidding the project.
  - e. Prepare the Technical Specifications section of the Project Manual organized in standard CSI three-part specification format for each facility.
  - f. Prepare Drawings, one set per facility, showing title sheet with location map, index, existing conditions, site plan, plan and profile sheets, E&S controls, demolition, mechanical modifications, electrical modifications (including all electrical wiring to instrumentation), P&ID drawing as well as another drawing showing process wiring and terminations, control panel arrangement drawings (with new PLC) showing new components, and any details deemed necessary.

**Bidding Phase Tasks:**

- a. Provide 3 sets of paper copies and one electronic copy of the bid level design Contract Documents (for each facility) for use by LCA.
- b. Obtain a prevailing wage determination by the Pennsylvania Department of Labor and Industry and incorporate into bid documents.
- c. The bid phase will utilize PennBid electronic bidding service.
- d. The Consultant shall monitor the list of prospective bidders and provide any feedback to LCA.
- e. The consultant shall respond to each RFI via email to LCA. LCA will administer posting the answers on PennBid.
- f. Prepare agenda and conduct a mandatory Pre-Bid Meeting to outline administrative and special construction requirements. Escorted site tours will immediately follow the meeting. Meeting minutes will be required for the mandatory pre-bid meeting.
- g. Prepare and issue Addenda as appropriate to interpret, clarify or expand upon the Contract Documents. An addendum will be required at the conclusion of the RFI period to memorialize all RFI responses.
- h. Evaluate the bids received for compliance with the bidding requirements and review qualifications and experience data furnished by bidders. Review bid bonds, insurance and other information provided for general conformance with Contract Documents.
- i. Provide recommendation with respect to acceptance of bids and award of construction contracts to LCA. Bid tabulation sheets will be made available via PennBid.

**Cost Estimate** *(not to be exceeded without further authorization):*

The tasks outlined in the above-mentioned Proposal will be performed under this PSA for the total not-to-exceed fee of **\$280,500.00** (\$143,100 Wynnewood + \$137,400 Sand Spring).

**Timetable and Completion Deadline** *(either party may terminate upon thirty days written notice):*

The work shall begin immediately and conclude by Winter 2018.

I am or represent the Professional indicated above, and as such I am authorized to:

- Accept the terms of the professional authorization set forth above; and
- Agree to indemnify, hold harmless and defend the Authority, its employees, agents, officials, successors and assigns (hereinafter all jointly referred to as "Authority"), from any and all loss and liability for claims, demands, suits or causes of action at law or in equity for damages and injuries (including death of every kind and nature) to persons (including employees of the Professional) and property arising out of error, omission or negligent act of Professional, or any person under contract to it, in rendering professional services under this authorization. The indemnification shall include, but not be limited to, payment of reasonable attorney fees and reasonable incidental litigation expenses of the Authority. Professional shall not, however, be liable for any portion of a judgment nor associated litigation expenses, including attorney's fees, ultimately determined to be the result of the negligence of the Authority.

\_\_\_\_\_  
Name (Signature)

\_\_\_\_\_  
Name (printed):

Title: \_\_\_\_\_

**(For Authority Use Only)**

**Authorization Completion:**

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

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# MEMORANDUM

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**Date:** February 13, 2017

**To:** Liesel Gross, C.E.O.  
**From:** Phil DePoe  
**Subject:** Allentown Division  
Kline's Island WWTP Phase 1 AO Improvements: Conceptual Design Phase 1  
(Amendment No.1)

**MOTIONS / APPROVALS REQUESTED:**

No.	Item	Amount
1	Professional Services Authorization Amendment No. 1 – Kleinfelder (1)	\$69,200

*(1) Does not include design, bid or construction phase related engineering services.*

**PROJECT OVERVIEW**

Kleinfelder has been granted approval to prepare a Conceptual Design Report to address Phase 1 AO Improvements. At the City's request, Kleinfelder will now also conduct additional services to develop the conceptual design for extending the Little Lehigh Relief Force Main to the Kline's Island Wastewater Treatment Plant (KIWWTP). This amendment will allow Kleinfelder to include this additional information with their Phase 1 AO Conceptual Design Report.

**FINANCIAL**

The project is an Administrative Order (AO) Project and it will be funded by the City.

**PROJECT STATUS**

Pending Board approval of the Conceptual Design Development Amendment No. 1.

**THIS APPROVAL - CONCEPTUAL DESIGN PHASE AMENDMENT NO. 1**

Lehigh County Authority (LCA) intends to retain the services of an engineering consulting firm to provide the conceptual design related services. Approval for the design, bid and construction related engineering services will be requested at a later date. The following table summarizes the professional services to be performed under this amendment:

<b>Amendment to Professional Services <sup>(1)</sup></b>
1. Desktop Review and Site Reconnaissance
2. Wetlands Investigation
3. Route Alternatives Evaluation
4. Geotechnical Investigation
5. Force Main Extension Conceptual Design
6. Conceptual Design Report

*(1) For Conceptual Design Development Phase Only*

**CONSULTANT SELECTION PROCESS**

The COA has instructed LCA to utilize Kleinfelder for this conceptual design phase of the project. Kleinfelder has been retained by the City to develop these concepts to comply with the EPA's Administrative Order.

**PROJECT SCHEDULE**

The project is anticipated to begin design by July of 2017. The project is anticipated to be bid ready by the beginning of August 2018 with an anticipated project completion date of October 2020.

**FUTURE AUTHORIZATIONS – DESIGN, BID AND CONSTRUCTION PHASE**

After this conceptual design amendment is approved, a Request for Proposal (RFP) for full engineering design services will be sent to numerous firms in May of 2017. A Capital Project Authorization (CPA) will be presented to the Board in July of 2017 for approval of the Design and Bid Phase; and will include a professional services award, staff costs and other related components. A Capital Project Authorization (CPA) Amendment will be presented to the Board in August of 2018 for approval of Construction Phase; and will include a construction contract award, a construction services award, staff costs and other related components.



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**PROFESSIONAL SERVICES AUTHORIZATION  
AMENDMENT NO. 1**

**Professional:** KLEINFELDER  
321 Wall Street  
Princeton, NJ 08540

**Date:** February 13, 2017

**Requested By:** Phil DePoe

**Approvals**

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

**Chief Executive Officer:** \_\_\_\_\_

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

**Allentown Division: Kline’s Island WWTP Phase 1 AO Improvements – Conceptual Design Development Phase (Amendment No. 1)**

In addition to the previously approved Phase 1 AO Improvements Conceptual Design, KLEINFELDER will also develop conceptual designs for extending the Little Lehigh Relief Force Main to the Kline’s Island Wastewater Treatment Plant (KIWWTP).

**Previous Authorization** (Conceptual Design Development): **\$149,820**

<b>Amendment to Professional Services <sup>(1)</sup></b>
1. Desktop Review and Site Reconnaissance
2. Wetlands Investigation
3. Route Alternatives Evaluation
4. Geotechnical Investigation
5. Force Main Extension Conceptual Design
6. Conceptual Design Report

*(1) For Conceptual Design Development Phase Only.*

Please reference the cover Memo for additional information.

**This Authorization** (Professional Services Authorization Amendment No.1): **\$69,200**

At the City’s request, this amendment addresses the Little Lehigh Relief Force Main Extension Conceptual Design.

**Total Authorization** (not to be exceeded without further authorization): **\$219,020**

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



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**PROFESSIONAL SERVICES AUTHORIZATION**

<b>Professional:</b>	<b>Date:</b> <u>02/13/17</u>
TFE Resources.	<b>Requested By:</b> <u>Pat Mandes</u>
Chris Hulse	<b>Approvals</b>
36363 Fox Meadow Circle	<b>Department Head:</b> <u>Pat Mandes</u>
Jarrettsville, MD 21084	<b>Chief Executive Officer:</b> _____

**Description of Services (Work Scope, Steps, Check Points, etc.):**

**WLSP Rehabilitation Effectiveness Monitoring 2017 Project**

Provide sewer flow and rainfall monitoring services in the WLSP Collection Systems or WLI System as-needed and directed by the Lehigh County Authority (LCA).

Tasks include LCA owned or Contractor owned flow monitor or rain gage site investigation and installation, data collection, review, monthly reporting, monitor and rain gage maintenance and other details included in the "Request for Proposal" dated August 2014.

The Scope of Work and other including equipment requirements, deliverables, and other requirements are included in the Lehigh County Authority "Request for Proposal" dated August 2014 and is part of this authorization. The TFE proposal and "Schedule of Prices" submitted to LCA in response to the LCA "Request for Proposal" is also a part of this authorization.

**Cost Estimate (not to be exceeded without further authorization):** Each specific project under the flow metering contract will have it's own PSA and not to exceed value. **This PSA is for the WLSP Rehabilitation Effectiveness Monitoring 2017 Project. This project will include 34 meters for a period of 8 months. Available and workable Lehigh County Authority (LCA) owned ADS meters should be used when possible.**

This authorization is not to exceed \$255,000 for the services as defined in the Signatory Flow Metering Project.

**Time Table and Completion Deadline:**

This contract is for as-needed services. Specific project details, requirements and schedules will be determined before each project. This authorization is for three years with the LCA option of two additional years. **Rehab Effectiveness is for a maximum of 8 months from February 2017 to October 2017. Meters to be installed during February 2017.**

**For Authority Use Only)**

**Authorization Completion:**

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

**FINANCE & ADMINISTRATION**

**ACTION ITEMS**

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1. **Connection Fees & Allentown Division Tapping Fees – February 27, 2017 or March meeting date to be determined**

Final calculations are under way for the Allentown Division Tapping Fees, after which they will be presented to the Board for review and approval via resolution as required by current legislation.

**DISCUSSION ITEMS**

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1. **2017 Goals – February 27, 2017**

The Authority’s management staff has developed goal statements and work plans for 2017, which will be presented to the Board for discussion.

**INFORMATION ITEMS**

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

<b>CERTIFICATES OF DEPOSIT</b>						
Fund	Bank	Location	Gross Amount	Date of Purchase	Date Due	Net Rate %
Cons Wtr (2)	Texas Trust CU	Mansfield, TX	245,000.00	12/30/16	11/30/18	1.4
Cons Wtr (2)	Sallie Mae Bank	Salt Lake City, UT	245,000.00	1/11/17	1/11/19	1.55
WW Capac	Ally Bank	Midvale, UT	249,000.00	1/12/17	1/14/19	1.55
Cons Wtr (2)	Whitney Bank	Gulfport, MS	245,000.00	1/25/17	1/25/19	1.55
WW Capac	Yadkin Bank	Elkin, NC	245,000.00	1/25/17	7/25/18	1.15
WW Capac	TCF National Bank	Sioux Falls, SD	245,000.00	1/25/17	7/25/18	1.15
WW Capac	Everbank	Jacksonville, FL	245,000.00	1/30/17	1/30/19	1.35
Cons Wtr (2)	Tradition Capital Bank	Edina, MN	245,000.00	1/31/17	10/31/18	1.25

Fund Descriptions for Investments:

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

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### DISCUSSION ITEMS

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### INFORMATION ITEMS

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1. **Allentown Division – Prelease Valve Replacements**

The project is the replacement of approximately 55 inoperable valves in multiple locations throughout the City that existed prior to the lease settlement. Design is currently under way. This project is identified as Un-Completed Work and will be funded by the City. **(No Change)**

2. **Allentown Division – Water Main Replacement Program- Cycle 3**

The project is the replacement of 4.39 miles of aged and/or failing Cast Iron water main in multiple locations throughout the City. The Construction phase was approved at the 4/11/16 Board meeting. JOAO & Bradley, Inc. our contractor has completed construction according to schedule and are currently in discussion with LCA for project documentation closeout and billing. This Project is identified as Schedule-7 Work and will be funded by LCA Allentown Division. **(No Change)**

3. **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 are needed due to equipment age. The existing flood pump (centrifugal) will be replaced with a new submersible flood pump. Miscellaneous electrical upgrades will also occur. In addition, a new raw water magmeter and two new chemical feed tanks will be installed at the Water Filtration Plant. Board Approval was granted at the January 23<sup>rd</sup> Board Meeting. Construction is expected to begin in April of 2017 and completed by August of 2017. This capital project is funded by the LCA Allentown Division.

4. **Allentown Division – Water System Master Plan**

This project involves the creation of a Master Plan for the Allentown Water Plant, water storage tanks, water storage reservoirs, pressure booster stations, raw water springs, and surface water intakes. The Master Plan will involve several key sections including, but not limited to: full-scale condition assessments, treatment process optimization, and development of short term/long term capital plans. The Master Plan is a requirement included within the City of Allentown lease, and it also needs to be updated every 5 years throughout the life of the lease. The project kick-off meeting with Arcadis was held on May 4, 2016. Multiple workshops have also been held. Condition Assessments and process control audits/optimizations are nearing completion and the capital plans are in early developmental stages. The project is scheduled to be completed early in 2017 and it will be funded by the LCA Allentown Division.

5. **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). Design is currently underway. This Project is identified as Schedule-7 Work and will be funded by LCA Allentown Division.

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 System to the Upper System. The project will also involve installation of a SCADA system. A revised Public Water Supply (PWS) permit application package received from our consultant is being reviewed.

7. **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 design phase is underway. We are reviewing the 100% design plans and specifications. A grant application for the construction costs has been submitted to the Commonwealth Finance Authority (CFA). Bidding and construction of the project will be delayed until after grant awards are announced, which is expected to be March 2017. **(No Change)**

8. **Suburban Division – Route 309 Crossing at Sand Spring Road**

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 is under way. PennDOT Highway Occupancy Permits have been obtained. An easement agreement was sent to LCCC for their signatures. **(No Change)**

9. **Suburban Division – Capece Tract, WL #20 and Res #3 Improvements**

WL #20 will be switched over to a variable frequency drive motor to better control power usage and maintain steady output. Reservoir #3 will receive a motor activated control valve to maintain filling capabilities and chlorine contact levels. Both facilities will receive an upgrade to their SCADA systems. The Notice to Proceed has been issued to Blooming Glen Contractors. Construction is underway and is expected to be completed in March 2017 **(No Change)**.

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

Project includes the design and 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. Design and bid phase services will be performed by D'Huy Engineering. The project is expected to be bid in spring 2017 **(No Change)**.

11. **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 January 4, 2017 Anrich Inc., our contractor has completed all construction related activities associated with the project and will begin the correction of punch list item deficiencies.

12. **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 three property owners where easements are needed. Design will commence once the easements are obtained.

13. **Developments**

Water system construction is occurring in the following developments:

Grandview, 6 commercial units and 204 apartment units, LMT  
Hidden Meadows, Phase 1B, 72 residential lots (sfa), UMT  
West Hills Business Center, 2 industrial lots, WeisT, water & sewer

Water system plans are being reviewed for the following developments:

67 Werley Road, 112 apartments & clubhouse, UMT  
Ciocca Subaru, 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  
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 2 Pad Sites, 2 commercial lots, UMT  
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  
Shepherd's Corner, 1 commercial lot, LMT  
Stone Hill Meadows, 24 residential lots (sfd), LMT  
Trexler Business Center, 1 Commercial Lot with 6 commercial buildings, LMT  
Weilers Road Twins, 82 residential lots (sfa), UMT  
Woodmere Estates, 60 residential units (sfd), UMT

## WASTEWATER

### ACTION ITEMS

1. **Wynnewood and Sand Spring Wastewater Treatment Plant Upgrade Project – February 13, 2017**

These two satellite system wastewater treatment plants are developer-constructed facilities between 35 and 40 years ago, and consist of buried steel tanks utilizing extended aeration process. Both facilities were investigated in 2015 as part of a satellite system wastewater treatment plant condition assessment, and both were found to be in poor condition, with the majority of the components at the end of its service life; complete facility replacement was recommended. In order to address the high risk rating of both facilities, the completion of upgrade design is to be performed by the end of 2017. Based on the similarities between the sites, the design of the replacement facilities has been bundled into one project in order to realize economy of scale. A request for design proposals was issued in late 2016, and statement of qualifications and cost proposals were received and reviewed. A recommendation for design authorization is to be presented at the February 13 Board meeting.

2. **Allentown Division – Kline’s Island WWTP Phase 1 AO Improvements: Conceptual Design Development Amendment No. 1 – February 13, 2017**

At the City’s request, the conceptual design proposal provided by Kleinfelder (that was approved at the December Board Meeting) is to be revised and amended. The conceptual design report is to now include a detailed study and recommendation of the proposed Park Pump Station force main extension to Kline’s Island. The cost to prepare the additional scope of work is to be paid by the City. The cost of the force main extension will now be considered an Administrative Order expense and will be included with the construction of the Phase 1 AO Improvements at the WWTP.

3. **Flow Metering / Rehabilitation Effectiveness Monitoring – February 13, 2017**

A Professional Services Authorization Amendment will be presented to the Board for Rehabilitation Effectiveness Flow Monitoring in the amount not to exceed \$255,000 to TFE Resources. The metering will take place in areas the Western Lehigh Sewerage Partners have planned source removal work. The evaluation will determine how effective the source removal work is at reducing the peak flows and will be the basis for obtaining allocation flow credits from DEP. The flow metering project has been included in the 2017 Capital Plan.

In 2014 a bid was conducted for a five (5) year contract for “As-Needed” flow monitoring services. The Board awarded the contract to TFE Resources.

### DISCUSSION ITEMS

1. **Administrative Order Update on Cost-Sharing Agreements & Methodology – February 13, 2017**

The Western Lehigh Sewerage Partnership is in the process of drafting a Memo of Cooperation that will describe the capital improvements plan, the responsibilities each Partner has, and how the costs will be allocated. LCA and each of the LCA Signatory Communities will be signing the MOC.

In addition the City Signatories are currently working on a draft Memo of Understanding that will lay-out the Phases of the City’s capital improvements plan and how costs will be allocated for each phase. A summary of the MOC and MOU will be presented to the Board.

### 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 15 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 (SSO's) from these manholes. A kick off meeting has occurred with the City. No timetable has been established for construction yet. The project is identified as Administrative Order and will be funded by the City. This will be the final cycle of the project **(No Change)**.

2. **Allentown Division – Wastewater Treatment Plant: Miscellaneous Improvements**

On 12/20/2016, the drive on Final Settling Tank #5 at Kline's Island WWTP experienced a complete failure. The drive is the original unit that was installed during construction of the clarifier in 1968. Procurement of a replacement drive has a long lead time of 14-17 weeks, which would place installation of the drive on a schedule well into the spring months when peak flows are often experienced and all tanks and drives must be fully operational. An emergency declaration allows staff to reduce this installation time by several weeks. A request for a retroactive emergency declaration was requested at the January 9, 2017 Board meeting. This capital project is funded by the LCA Allentown Division.

3. **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 with construction expected to be completed by early February 2017. The new Primary No. 1 Digester is expected to be installed 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.

4. **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 23rd Board Meeting. Approval of the remaining work will be requested at the February 2017 Board Meeting. Construction of the project is expected to begin in May of 2017. This Project is identified as an Uncompleted Work (UW) in the Lease Agreement and will be funded by the City of Allentown.

5. **Allentown Division – Kline's Island WWTP Phase 1 AO Improvements: Conceptual Design Development**

This portion of the Phase 1 Administrative Order project will develop conceptual designs for the blending and flow equalization alternatives at the wastewater treatment plant. This conceptual design concept has been approved by the City. The City has directed LCA to proceed with these alternatives pending a final determination in late May of 2017. Board approval has been approved for the development of this conceptual design (later to be included in the RFP for full design services). Board approval for the full engineering design phase of the project will be requested at the June 2017 Board Meeting. The project is identified as Administrative Order Work and will be funded by the City. Construction is expected to begin in late 2018 and is expected to be complete in late 2020.

6. **Consolidated Systems - SharePoint**

SharePoint made available to plant and customer service. Not tracking any usage at this time. Waiting for feedback on problems. **(No Change)**

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

This project involves the following upgrades to the existing pumping station: Evaluate the feasibility of installing 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. The project has been identified as a Major Capital Improvement (MCI). The project is currently in design phase, and should be ready for bidding by Summer 2017. **(No Change)**

8. **Suburban Division – Western Weisenberg Wastewater Treatment Plant Improvements**

This project includes the improvements necessary to rectify the cold weather nitrification issue at the WWTP. This project will be funded by the LCA Suburban Western Weisenberg Division. The Board approved the construction phase of the project at the May 9, 2016 meeting. Work started in October 2016. The winterization project is substantially complete and all upgrade work is operational. The Contractor will address punchlist items for final completion in January 2017 **(No Change)**.

9. **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 Spring 2017. **(No Change)**

10. **Suburban Division – Test & Seal Project. Wynnewood Terrace**

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 the Wynnewood Terrace development in North Whitehall Township, previously identified as areas subject to leakage. This project is part of the single contract Test & Seal project. Construction began in August 2016 and is expected to finish by early 2017. **(No Change)**

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

This project will upgrade the wastewater treatment plant (WWTP) headworks. The project is being funded by the Lynn Township Suburban Division. A Notice of Intent to Award was sent to the contractor and work will commence in Winter 2017.

12. **Suburban Division – SCARP**

Monthly meetings with the LCA Suburban Division Signatories began in January to negotiate a Memo of Cooperation for completion of the SCARP Capital Improvements Plan. Cash flow plans prepared by the Program Consultant have been presented to the Signatories so they can begin analyzing their borrowing needs and schedule. A communications plan has been developed to help the Signatories with discussions with their Boards and the public. The LCA AO Program Consultant will be making a presentation at both LMT and Macungie Borough at their request. Meetings are also taking place monthly with the City Signatories in preparation for signing a Memo of Understanding.