



LEHIGH COUNTY AUTHORITY

January 25, 2016

BOARD MEETING AGENDA

1. Call to Order
2. Review of Agenda
 - *Public Participation Sign-In Request*
3. Executive Sessions
4. Approval of Minutes
 - *October 26, 2015 Board Meeting Minutes*
 - *November 9, 2015 Workshop Meeting Minutes (to be mailed under separate cover)*
 - *December 14, 2015 Board Meeting Minutes*
 - *January 11, 2016 Workshop Meeting Minutes (to be mailed under separate cover)*
5. Public Comments
6. Action / Discussion Items

FINANCE AND ADMINISTRATION

WATER

- *Allentown Division – Water Filtration Plant: Emergency Generator for Schantz and Crystal Spring Pumps (Approval)*
- *Suburban Division - Facility Condition Assessment (Approval)*

WASTEWATER

7. System Operations Overview
8. Staff Comments
9. Solicitor's Comments
10. Other Comments
11. Adjournment

FEBRUARY MEETINGS

Workshop Meeting
Board Meeting

February 8 – 12:00 p.m.
February 22 – 12:00 p.m.

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. 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.

FINANCE & ADMINISTRATION

ACTION ITEMS

DISCUSSION ITEMS

INFORMATION ITEMS

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

CERTIFICATES OF DEPOSIT						
Fund	Bank	Location	Gross Amount	Date of Purchase	Date Due	Net Rate %
LLRI CR	PSDLAF	Collateralized CD	400,000.00	12/15/15	6/21/16	0.1
Cons Wtr (2)	PSDLAF	Collateralized CD	155,000.00	12/15/15	6/21/16	0.1
Cons LL2 (314)	PSDLAF	Collateralized CD	245,000.00	12/15/15	6/21/16	0.1
WW Capac	PSDLAF	Collateralized CD	600,000.00	12/15/15	6/21/16	0.1
2010 Wtr Cons A	PSDLAF	Flex Pool	2,000,000.00	12/15/15	6/21/16	0.1
Wtr R&R	PSDLAF	Collateralized CD	1,000,000.00	12/15/15	6/21/16	0.1

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

1. **Allentown Division – Water Filtration Plant: Emergency Generator for Schantz and Crystal Spring Pumps (Approval)**

The project consists of installing an emergency generator for the Schantz and Crystal Spring Pumps. If both electrical feeds are lost at the water filtration plant, the pumps for Schantz and Crystal Spring cannot operate. Installing a permanent generator for these pumps will allow the plant to pump water into the distribution system during an extended power outage. This project will be funded by LCA Allentown Division .Design phase approval is requested at the January Board Meeting (*grey*).

2. **Suburban Division – Water & Wastewater Facility Condition Assessment (Approval)**

The project consists of a comprehensive facilities evaluation of the buildings, HVAC system and electrical system for 16 water and 11 sewer facilities in the Suburban Division. The Study will utilize asset management protocols and enable prioritizing and planning capital improvement projects in order to maintain an acceptable level of service and strategize funding. Approval is requested at the January Board Meeting (*yellow*).

DISCUSSION ITEMS

INFORMATION ITEMS

1. **Suburban Division - Water Main Replacement Program Cycle 1**

The project consists of the replacement of 1.73 miles of aged and/or failing Cast Iron water main. Design is currently under way.

2. **Suburban Division - Water Main Replacement Program Cycle 2**

The project consists of the replacement of 1.5 miles of aged and/or failing Cast Iron water main. Design is currently under way.

3. **Suburban Division – Pumping Station Projects**

This project will involve upgrades at two existing small system booster stations and the installation of one new major booster station in the Central Lehigh Division (CLD). The Pine Lakes Project will feature the conversion of the existing hydro-pneumatic station to a variable frequency drive controlled double pumping system (along with other miscellaneous improvements). The Crestwood 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 CLD Auxiliary Pump Station Project will feature the installation of a new booster station and main extension to pump water from the Lower to the Upper System. The projects will also involve installation/conversion to a SCADA system at each of the sites. The design for all three projects commenced in June. The PADEP Public Water Supply (PWS) Permit applications were submitted for the Crestwood and Pine Lakes Projects. Comments were returned to our consultant on the CLD Auxiliary Pump Station Project application.

4. **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 design phase is under way.

5. **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.

6. **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.

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

The project is the replacement of 2-miles of aged and/or failing Cast Iron water main in multiple locations throughout the City. Construction is currently complete and project close out is under way. This Project is identified as Schedule-7 Work and will be funded by LCA Allentown Division.

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

The project is the replacement of 4-miles of aged and/or failing Cast Iron water main in multiple locations throughout the City. Design is currently under way. This Project is identified as Schedule-7 Work and will be funded by LCA Allentown Division.

9. **Allentown Division - Miscellaneous Water Filtration Plant / Water Distribution**

One project consists of upgrading the existing stormwater pump/control at Water Distribution. Design is currently underway with a likely spring construction start date. This will be a capital project funded by the LCA Allentown Division. Another project consisted of repainting the finished water gallery piping. Construction started in mid-November and has been completed. The design for Phase II of painting (filter gallery) is under design. The design for the rehabilitation of the filter room high ceiling is also underway.

10. **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. RFPs were distributed to consultants in December 2015. Board approval to award the professional services contract is planned for February 2016. The project will be funded by the LCA Allentown Division.

11. **Developments**

Water system construction is occurring in the following developments:

Hamilton Crossings, 2 commercial lots with 20 buildings having retail, financial, convenience and restaurant uses, LMT

Highgate, Phase 3 (Dunbar Tract), 63 residential lots (sfa), UMT
Liberty at Mill Creek, 2 industrial lots, UMT
Spring Creek Settlement Properties, 14 commercial/industrial lots, LMT
Valley West Estates, Phases 4, 5 & 6, 46 residential lots (sfd), UMT (currently on hold)

Water system plans are being reviewed for the following developments:

Bortz Tract, 14 commercial units, UMT/SWT
Diocesan Pastoral Center, 2 commercial lots, 3 additional lots and residual lot for existing cemetery, LMT
Farr Tract, 94 residential lots (sfd), LMT
Fields at Indian Creek, 218 residential lots (sfd) & community center, LMT/UMiIT/Emmaus, water and sewer
Grandview, 6 commercial units and 204 apartment units, 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
Lehigh Hills, 247 residential lots (sfa/sfd), UMT
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
Trexler Business Center, Lot 1, 1 commercial building, LMT
Weilers Road Twins, 82 residential lots (sfa), UMT
Woodmere Estates, 60 residential units (sfd), UMT

WASTEWATER

ACTION ITEMS

1. **Boston Beer Amendment (Approval)**

Boston Beer (American Craft Brewery) has been operating under the Diageo agreement dated September 1, 2005, since they went on line in 2007. An amendment to the existing Diageo agreement was approved by the Board in 2011 with a five year term. The second Amendment has been negotiated over the last 9 months for the next five year period. A summary of the terms negotiated will be presented to the Board for approval if Boston Beer accepts the final changes to the agreement prior to the Board mailing. ***Postponed until February.***

DISCUSSION ITEMS

INFORMATION ITEMS

1. **Wastewater Treatment Capacity**

The PaDEP has suggested that a 537 Plan for the additional 4 MGD of capacity be submitted to them at the time when the 4 MGD is needed or after the SCARP improvements are made. They anticipate that if the 537 Plan is submitted in the near term, the Department will require a revised Plan prior to any capital improvements.

2. **Suburban Division -Wynnewood Terrace Pump Station and Force Main Replacement**

Work started on April 13, 2015 and was Substantially Complete on October 12, 2015. Contractors are working towards final completion of punch lists and restoration.

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

The project will upgrade the WWTP head works. Gannett Fleming has submitted 100% design specifications for our review.

4. **Allentown Division – Sanitary Sewer Manhole Lining, Cycle 3**

This annual project will install a lining system (to eliminate infiltration) in approximately 100 aged brick manholes identified by LCA staff. The design phase will be administratively approved. Board approval of the construction phase will be requested in the Spring of 2016. The project is identified as Administrative Order Work and will be funded by the City.

5. **Allentown Division – Manhole Collars with Water Tight Frame and Covers, Cycle 3**

This three year project will permanently secure the frame and cover of approximately 90 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. Board approval of the construction phase will be requested in the Spring of 2016. The project is identified as Administrative Order and will be funded by the City.

6. **Allentown Division - WWTP-Replacement of Motor Control Centers**

This Project will replace five aged motor control centers that provide power on a 24/7 basis to various parts of the WWTP. The project has been approved by the City as a

Major Capital Improvement (MCI). The project completion is still expected by the end of February 2016. This Project is identified in the Lease as Schedule 7 (required) project and will be funded the LCA Allentown Division.

7. **Allentown Division – Roof Rehabilitation and Replacements- Phase 1**

The Project consists of replacing 26 facility roofs that were identified as in need of immediate replacement in the Roof Evaluation report performed by D'Huy Engineering. The design of these replacements are proceeding. The project was presented to the City for review/approval as a Major Capital Improvement (MCI), but the city rejected it as such. Construction began in October and will be complete by February 2016. The project will be funded by the LCA Allentown Division.

8. **Allentown Division – Roof Rehabilitation and Replacements- Phase 2**

The Project consists of replacing 13 facility roofs that were identified as in need of "Phase 2" replacement in the Roof Evaluation report performed by D'Huy Engineering. The design of these replacements are proceeding. The project will be funded by the LCA Allentown Division.

9. **Allentown Division- SCADA System Installation –Wastewater Treatment Plant:**

Existing network equipment was transferred to new rack system. PLC panel factory acceptance testing is scheduled for the January 13 & 14, 2016. Graphic display screens have been received for comment. Configuration of historical data, trending and reports are progressing. The project is being funded by the City.

10. **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 submitted to the City for review and approval. A request for Board approval of the construction phase is anticipated in February 2016. This Project is identified in the Lease as Schedule 7 (required) project and will be funded by the LCA Allentown Division.

11. **Consolidated Systems- SharePoint:**

SharePoint application is up and available. Administrator training was held on December 1, 2015. Workshop topics will be Team sites – Plant services, customer service; Workflow – Board/Staff notes, New employee orientation; KPI/Dashboard – Employee safety, Bond coverage. GHD is developing SharePoint sites for these applications.

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

This project includes: (1) the improvements necessary to rectify the cold weather nitrification issue at the WWTP, and (2) the installation of additional equipment to enhance operation. This project will be funded by the LCA Suburban Western Weisenberg Division. Preliminary design plans are expected by the end of February 2016.

13. **Suburban Division – SCARP**

The Round 2 final alternatives modeling has been completed. An internal meeting was held to discuss the recommended path forward. In 2016 the LCA Signatory communities will negotiate a Memo of Understanding for completion of the SCARP Capital Improvements Plan.

The "Order Extension on Consent" was executed by LCA and sent to EPA. South Whitehall Township and Coplay Whitehall Sewer Authority did not sign the Order. Rebecca Crane from EPA has confirmed this but she did not provide any clarification on what this means for the other Signatories. It is my understanding that the two Township Solicitors and EPA have scheduled a phone conversation to discuss.

The test and seal project for a portion of the Western Lehigh Interceptor will be bid in the near future.

14. Lowhill Township – Sewer System Acquisition

The Board approved this acquisition earlier in 2015, but there are a number of items that need to be completed before settlement can take place, particularly an agreement with Upper Macungie Township for use of its system to transport waste from the Lowhill sewer system to the Western Lehigh Interceptor. The original transportation agreement with Lowhill Township is not assignable, so Upper Macungie has asked that the agreement be revised. There has been a meeting on this and the parties seemed to have reached agreement on most terms; Upper Macungie is now to prepare the first draft.

REGULAR MEETING MINUTES
October 26, 2015

The Regular Meeting of the Lehigh County Authority was called to order at 12:30 p.m., on Monday, October 26, 2015, Chairman Brian Nagle presiding. Other Members present at the commencement of the meeting were: Linda Rosenfeld, Emrich Stellar, Tom Muller, Richard Bohner, Norma Cusick, Scott Bieber, Ted Lyons and Deana Zosky. Authority Staff present were Aurel Arndt via video conference, Liesel Adam, Pat Mandes, Ed Klein, Frank Leist, Brad Landon, John Parsons, Phil DePoe, Bob Kerchusky, Linda Eberhardt and Lisa Miller.

Present from the public were Rob Hamill, Mike Siegel, Dave McGuire, Joe Hilliard, Jan Keim and John Donchez.

REVIEW OF AGENDA

Chairman Nagle said that there will be an Executive Session following the regular meeting regarding potential litigation.

APPROVAL OF MINUTES

September 14, 2015 Workshop Meeting Minutes

Chairman Nagle has one change. Under Action and Discussion Items, the dates for the Capital Plan should read 2016-2025. On a motion by Richard Bohner, seconded by Norma Cusick, the Board unanimously approved the Minutes of the September 14, 2015 Workshop Meeting as changed (9-0).

September 28, 2015 Regular Meeting Minutes

Richard Bohner said that under Action and Discussion Items, Well WL-20 and Reservoir-3 – Coordinated Capital and Operational Changes, the Capital Project Authorization shows a different total cost as to what is being requested and what is listed in the actual paperwork. Since this is not a typo, the Minutes will be tabled until the correct amount of the CPA is determined.

PUBLIC COMMENTS

Joe Hilliard of South Allentown was present and expressed his concerns of transparency with the Board. He read from a list of items that he believes would improve the Authority's transparency. The Board requested the list be supplied to the Authority in writing for consideration.

Rob Hamill was present to discuss his concerns with transparency and the monitoring of Wells 8 & 12. He states that he believes the Authority is not completing the monitoring work it agreed to do to ensure the wells would not impact the Little Lehigh Creek. Liesel Adam responded that LCA has provided Lower Macungie Township with the information on the monitoring wells and also reached out to assist them with any questions and so all terms of the monitoring requirements have been met.

David McGuire with the Sierra Club of Allentown was present to comment on the monitoring wells and also the EPA Administrative Order (AO).

Jan Keim was present and discussed her concerns regarding sewage overflows in the Little Lehigh Creek and the solutions that the municipalities and LCA were proposing to correct the problem. Some discussion followed regarding a presentation that Bill Erdman from Keystone Consulting Engineers had presented to some of the Western Lehigh Signatories and their engineers to discuss the options on the EPA AO. The Board did not have a copy of, nor were familiar with Mr. Erdman's presentation, and therefore requested additional information about this topic be presented at a future meeting.

Mike Siegel, President of the Little Lehigh Watershed Coalition was present. He stated that the Coalition has been essential in getting water quality improved in the Little Lehigh Creek. He also wanted to let the Board members know that the Coalition has hired an attorney to monitor LCA's activity for the past six years. He said that his attorney will sue LCA and its signatories if there is another sewage overflow on the Little Lehigh Creek. The Coalition is watching and will hold LCA and its signatories accountable.

ACTION AND DISCUSSION ITEMS**2016 Budget**

The preliminary 2016 Budget had been presented at the previous Workshop meeting and is now up for approval. Liesel Adam gave an overview and Ed Klein presented a PowerPoint slide show highlighting debt service ratios and any changes made from the preliminary Budget. There was discussion on the signatory rates. Ed Klein also explained the use of reserves to fund capital improvements.

There was public comment on the transparency of LCA's budget review and approval process and also capital improvement costs.

There was discussion on the Budget timeline. Ed Klein explained that the 2016 budget timeline was compressed significantly to meet Concession financing bondholder requirements of budget adoption prior to November 1st. Future budget timelines can be modified if needed, which the Board will discuss at a future meeting.

Norma Cusick proposed a motion to adopt the 2016 Budget as presented, seconded by Richard Bohner. To ensure a clear record of this action, a roll call vote was requested, with the following votes cast:

Linda Rosenfeld – yes
Emrich Stellar – yes
Tom Muller – yes
Brian Nagle – yes
Richard Bohner – yes
Norma Cusick – yes
Scott Bieber – yes
Ted Lyons – yes
Deana Zosky – no

With such votes cast, the Board adopted the 2016 Budget (8-1).

Pat Mandes gave an overview of the proposed 2016 Wastewater User Charges report. The report consists of the proposed rates for the Western Lehigh Signatories. LCA stated that rates were lowered 14% last year.

On a motion by Ted Lyons, seconded by Norma Cusick, the Board unanimously gave preliminary approval of the Proposed 2016 Wastewater User Charges (9-0).

Allentown Division – Miscellaneous Water Filtration Plant/Water Distribution (Approval)

Frank Leist gave an overview of the project that consists of repainting the processed water pipe at the Water Filtration Plant. The work includes the preparation (sand blasting) of processed water piping including connection joints, support posts and miscellaneous pipe support steel. He is asking for approval of the Capital Projection Authorization for the Construction Phase in the amount of \$122,097.00, which includes the Professional Services Authorization to D'Huy Engineering in the amount of \$9,200.00 and the General Contract Award to D.M. Coatings, Inc. in the amount of \$82,897.00.

On a motion by Scott Bieber, seconded by Tom Muller, the Board unanimously approved the Capital Projection Authorization for the Construction Phase in the amount of \$122,097.00, which includes the Professional Services Authorization to D'Huy Engineering in the amount of \$9,200.00 and the General Contract Award to D.M. Coatings, Inc. in the amount of \$82,897.00 (9-0).

Allentown Division – Miscellaneous Projects at the Wastewater Treatment Plant (Approval)

Frank Leist gave an overview of the project that consists of the purchase and installation of a new 250 kW standby generator with sub-base fuel tank, concrete pad, automatic transfer switch, interconnecting conduit

and wiring and tie-in to an existing Motor Control Center. He is asking for approval of the Capital Project Authorization for the Construction Phase in the amount of \$162,200.00, which includes the Professional Services Authorization to D'Huy Engineering in the amount of \$13,500.00 and the General Contract Award to Wind Gap Electric in the amount of \$108,700.00.

On a motion by Emrich Stellar, seconded by Norma Cusick, the Board unanimously approved the Capital Project Authorization for the Construction Phase in the amount of \$162,200.00, which includes the Professional Services Authorization to D'Huy Engineering in the amount of \$13,500.00 and the General Contract Award to Wind Gap Electric in the amount of \$108,700.00 (9-0).

There was a brief discussion on Boston Beer and their pretreatment plant rates.

SYSTEM OPERATIONS OVERVIEW

Robert Kerchusky reported that in September, the Water Filtration Plant produced 20.5 million gallons per day. The projects that were completed were the #23 standpipe was cleaned inside and out and surface coated, the #2 High lift motor was removed for rebuild, and one of the Crystal Spring motors was removed for rebuild. Kline's Island Wastewater Plant treated 30.09 million gallons per day. Major projects that are ongoing are the motor control center replacement and the SCADA system. All parameters were met at both plants.

Tom Muller left the meeting at 2:00 p.m.

Linda Rosenfeld commented that she recently toured the Wastewater Treatment Plant. She said it was terrific and was amazed at how well it was working compared to when she had toured it in the past. She thanked Steve Stahlberg for the tour.

STAFF COMMENTS

Liesel Adam recognized Linda Eberhardt for her tremendous effort in the Budget process. The Board thanked her.

SOLICITOR'S COMMENTS

None.

OTHER COMMENTS

David McGuire commented on the Inflow and Infiltration issue. The Board commented that LCA is and has been trying to get the right solution for all those involved. Joe Hilliard stated that the City has oversold its capacity for years. Mike Siegel commented on the odor issues in the Lehigh Parkway area and in sections of the Little Lehigh Creek. Deana Zosky commented that she is aware that LCA is working on the odor issues with the residents.

EXECUTIVE SESSION

The Chairman called an Executive Session at 2:10 p.m. to discuss potential litigation.

Linda Rosenfeld left the meeting at 2:55 p.m.

The session ended at 3:05 p.m.

ADJOURNMENT

There being no further business, the Chairman adjourned the meeting at 3:05 p.m.

Richard H. Bohner
Secretary

WORKSHOP MEETING MINUTES

November 9, 2015

The Workshop Meeting of the Lehigh County Authority was called to order at 12:07 p.m., on Monday, November 9, 2015, Chairman Brian Nagle presiding. Other Members present at the commencement of the meeting were: Linda Rosenfeld, Emrich Stellar, Tom Muller, Richard Bohner, Norma Cusick, and Deana Zosky. Authority Staff present were Aurel Arndt, Liesel Adam, Brad Landon, Pat Mandes, Ed Klein, Frank Leist, John Parsons, Bob Kerchusky, Chuck Volk and Lisa Miller.

Also present were James Shelton of Arcadis, Bill Bohner of ARRO, and Ralph Eschborn of AECOM.

REVIEW OF AGENDA

Aurel Arndt stated that there will be one Executive Sessions regarding potential litigation at the end of the regular meeting agenda.

PUBLIC COMMENT

Chairman Nagle stated that he would like to revisit the Board Norms. He asked that Board members review the current Norms and have any comments back to him by November 20, 2015 for discussion at a later date.

Joe Hilliard of Allentown was present to discuss a written response he prepared to the Board's request of how he would make LCA more transparent. He read his list of responses but would not provide it to the office unless he was provided with the Board members personal email addresses.

ACTION AND DISCUSSION ITEMS

EPA Administrative Order

Pat Mandes presented a PowerPoint presentation for discussion regarding the EPA Administrative Order. The LCA Infiltration and Inflow (I&I) Program Consultant, Jim Shelton from Arcadis, also presented information on the final alternatives analysis for the Western Lehigh Interceptor System. The hydraulic model was utilized to cost out various alternatives to meet the level of service necessary to meet the EPA Administrative Order. Combinations of storage, conveyance upsizing, and I&I removal were evaluated. The lowest cost alternatives were discussed in more detail. The alternative favored by the Western Lehigh Sewerage Partners include I&I removal of over 60 miles of pipe in the Signatory systems. Discussion followed. No action was requested.

Western Lehigh Interceptor 537 Plan Study Update

Ralph Eschborn of AECOM presented a PowerPoint presentation and provided the background on the 537 Plan that was previously presented to the Board. He presented the cost estimates developed in 2013 for the four options to obtain 4 MGD of wastewater capacity which include the expansion of Kline's Island WWTP, upgrade and direct discharge from the Pretreatment Plant (PTP) to either the Lehigh River, Jordan Creek, or land application. Since 2013, the focus of the study has been to further evaluate the land application for cost savings and to develop hybrid scenarios for Kline's Island. The results of the various evaluations would be used to update the four costs estimates.

Previous evaluations on land application costs did not consider the Total Dissolved Solids (TDS) levels in the PTP effluent. DEP has established a standard of 500 mg/L for TDS for drinking water, which must be met by wastewater treatment for land application, or through proper dilution of land-applied effluent. Agricultural use of land-applied effluent is typically capped at 1000 mg/L. Characterization of the PTP effluent indicates TDS levels in excess of 1300 mg/L. An evaluation of potential land application sites in Western Lehigh County determined that year round land application of effluent was possible and could result in a significant reduction in costs. Mr. Eschborn explained that the limiting factor would be TDS in the PTP effluent. A source reduction evaluation was performed to determine if the source or sources of TDS in the PTP influent would be reduced to levels which would produce effluent that meet the DEP TDS standards for land application.

The wastewater discharge from the major industrial discharges into the PTP was characterized. The largest contributor of the PTP TDS was further evaluated. The conclusion of the study was that source reduction of

TDS is not possible with the conclusion that reverse osmosis (RO) would be required at the PTP to be able to meet the DEP TDS levels for land application. The additional costs of RO significantly increased the cost of the land application option

The hydraulic model was utilized to generate costs for conveyance improvements necessary for each of the four options for obtaining the additional 4 MGD of treatment capacity. The findings of the study were that full diversion of flow to the PTP would save no more than \$7 million dollars in conveyance relief piping rather than sending all flows to Kline's Island WWTP. This cost comparison includes all costs currently contemplated for remediation of I&I issues as presented in the earlier discussion about the USEPA Administrative Order.

AECOM evaluated previous cost estimates for upgrades at Kline's Island WWTP to determine if other technologies could reduce costs. The findings of the evaluation were that the midstream de-ammonification process and chemically enhanced primary treatment have cost savings benefits of \$10 million dollars. There is also a benefit of phasing the improvements.

In conclusion, Ralph Eschborn presented the economic summary of the future options. With the updated studies, a Kline's Island expansion is the least costly alternative. The recommendation made to the Board was to defer the pursuit of alternatives other than Kline's Island expansion and to integrate conveyance capacity increases with the future wet weather improvements related to the EPA Administrative Order. Some discussion followed. No action was requested.

INFORMATION ITEMS

None.

SYSTEM OPERATIONS OVERVIEW

None.

STAFF COMMENTS

None.

SOLICITOR'S COMMENTS

None.

OTHER COMMENTS

None.

EXECUTIVE SESSION

The Chairman called an Executive Session at 2:23 p.m. to discuss potential litigation.

Emrich Stellar left the meeting at 2:30 p.m.

The session ended at 2:50 PM.

ADJOURNMENT

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

Richard H. Bohner, Secretary

REGULAR MEETING MINUTES
December 14, 2015

The Regular Meeting of the Lehigh County Authority was called to order at 12:18 p.m., on Monday, December 14, 2015, Chairman Brian Nagle presiding. Other Members present at the commencement of the meeting were: Linda Rosenfeld, Emrich Stellar, Tom Muller, Richard Bohner, Norma Cusick, Scott Bieber and Deana Zosky. Authority Staff present were Aurel Arndt, Liesel Gross, Ed Klein, Pat Mandes, Frank Leist, Brad Landon, John Parsons, Chuck Volk, Bob Kerchusky, Phil DePoe and Lisa Miller.

REVIEW OF AGENDA

Aurel Arndt stated there would be an Executive Session following the regular meeting regarding potential litigation and a personnel issue.

APPROVAL OF MINUTES

September 28, 2015 Regular Meeting Minutes

Richard Bohner suggested two corrections to the Minutes. Under Action and Discussion items, Well WL-20 and Reservoir 3, the vote should be 8-0 and the second correction, under Action and Discussion items, the second to the last paragraph should have the heading Staff Comments.

On a motion by Richard Bohner, seconded by Norma Cusick, the Board unanimously approved the Minutes of September 28, 2015 with the addition of Richard Bohner's suggestions (8-0).

October 19, 2015 Workshop Meeting Minutes

On a motion by Richard Bohner, seconded by Linda Rosenfeld, the Board approved the Minutes of October 19, 2015 as written. Emrich Stellar abstained (7-0).

November 23, 2015 Regular Meeting Minutes

Richard Bohner suggested a correction to the Minutes. Under the Approval of the August 31, 2015 Minutes, the vote should be 4-0.

On a motion by Richard Bohner, seconded by Norma Cusick, the Board approved the Minutes of November 23, 2015 as corrected. Emrich Stellar, Tom Muller and Brian Nagle abstained (5-0).

December 9, 2015 Board Meeting Minutes

On a motion by Richard Bohner, seconded by Norma Cusick, the Board unanimously approved the Minutes of December 9, 2015 (8-0).

PUBLIC COMMENTS

Glen Hunsicker of Allentown was present to ask questions to understand if there would be a reduction in number of employees in the City Division. Liesel Adam explained that this is in the 2016 Budget and part of LCA's restructuring.

ACTION AND DISCUSSION ITEMS

Water & Sewer Rate Schedules

Liesel Adam gave an overview of the water and wastewater rates and charges per the schedules that were distributed. Resolution #12-2015-1 was also presented for approval as required for adopting the capital recovery fees outlined in the schedules. An updated 2016 Report on Wastewater Charges was also submitted for Board approval which reflects charges that have arisen since the preliminary report was approved with the 2016 budget. Aurel Arndt explained tapping fees. Some discussion followed.

On a motion by Richard Bohner, seconded by Norma Cusick, the Board unanimously approved the schedules of water and wastewater rates and charges and the Proposed 2016 Wastewater User Charges (8-0).

On a motion by Norma Cusick, seconded by Linda Rosenfeld, the Board unanimously approved Resolution #12-2015-1 (8-0).

Resolutions – Management Staff Changes

Brad Landon explained the management staff changes and the requirements for the financial institutions. Resolution #12-2015-2 recognizes that the position of Chief Administrative Officer will be eliminated and the reassignment of responsibilities to newly created or existing positions.

On a motion by Emrich Stellar, seconded by Tom Muller, the Board unanimously approved Resolution 12-2015-2 (8-0).

Brad Landon presented a series of resolutions to deal with changes necessary for various accounts with financial institutions recognizing the changes set forth in the previous resolutions. Resolution No. 12-2015-3 addresses the actual management positions with authority to perform specific functions and Resolution No. 12-2015-4 designates particular persons by name who presently are in those positions since this is often required by financial institutions. It was the intent to have these resolutions serve broadly for all financial institutions, but National Penn Bank, where many of the Authority accounts are located, insisted on their own resolution form. Because of the lack of enough time before Aurel retires to pursue this to a higher level, and the fact that many of the Authority's operational accounts are with National Penn Bank, the staff recommended Board approval of Resolution No. 12-2015-5, the National Penn Bank form resolution.

There was some discussion on bonding of employees. The Board will revisit this issue at the next meeting so the LCA Staff can investigate it and report back.

On a motion by Emrich Stellar, seconded by Linda Rosenfeld, the Board adopted Resolution #12-2015-3, Resolution #12-2015-4, and Resolution #12-2015-5 (7-1). Deana Zosky opposed.

2016-2025 Capital Plan – City Concerns

Dan Koplisch, consultant to the City of Allentown, was present to discuss a letter he sent to the Board stating his concerns regarding the 2016-2025 Capital Plan. He is concerned about the lack of response from LCA regarding the City's comments and review of the preliminary Capital Plan. He is also concerned about project AD-W-21 Fixed Meter Reading station. He feels there is not enough justification for the replacement of the meter reading system.

Another concern Dan Koplisch raised is the rate increases in the City Division, especially considering large projects in the future to address the USEPA Administrative Order as well as wastewater capacity expansion projects. The Authority will need to weigh projects very carefully to ensure the customers can afford the rates. Aurel Arndt responded that he agrees with the large numbers regarding capacity and the Administrative Order. He also explained that LCA uses the Capital Plan as a planning tool and there is a preliminary assessment that gets done before a project gets full authorization for funding. The City's comments about the justification about a specific project such as the meter reading system is premature if the Authority has not yet completed this assessment or proposed authorization of the work. Dan Koplisch stated that, even though it is LCA's intent to use the Capital Plan as a planning tool, the reality is that every project has been initiated exactly as shown in the Capital Plan. Frank Leist commented that LCA's record of completing projects exactly as planned in the Capital Plan, for the Allentown Division, thus far is due to the City requiring the projects to be completed through the terms of the lease. Previously, there has been no discretionary projects in the Capital Plan; LCA was required to do them.

Chairman Nagle commented that the Board will continue to review and study all aspects of the projects that are presented prior to authorizing them.

Allentown Division – Water Main Replacement Program Amendment Design Phase Cycles 1-3

Frank Leist gave an overview of the project for the added design phase work. An additional 2.69 miles of water main replacements were added. The reason for the additional miles was because of extending the mains past the intersections. In addition, there is a cost savings to do the extra miles now because of the increasing interest rates on bonds. He is asking for approval of the Capital Project Authorization (Amendment) Design Phase 1-3 in the amount of \$115,000.00 which includes the Professional Services Authorization Amendment No. 3.

On a motion by Richard Bohner, seconded by Norma Cusick, the Board unanimously approved the Capital Project Authorization (Amendment) Design Phase 1-3 in the amount of \$115,000.00 which includes the Professional Services Authorization Amendment No. 3 (8-0).

SCARP Program Management

Pat Mandes gave an overview of the request for the 2016 Program Management for the Signatory Inflow & Infiltration (I & I) Investigation/Remediation program. She is asking for approval of the Capital Project Authorization Amendment No. 23 in the amount of \$100,000.00 which includes the Professional Services Authorization Amendment No. 22.

On a motion by Emrich Stellar, seconded by Tom Muller, the Board unanimously approved the Capital Project Authorization Amendment No. 23 in the amount of \$100,000.00 (8-0).

Following discussion, Pat Mandes explained that on the Capital Project Authorization sheet, under Program Management for previous years, the amount in 2015 will be amended to \$50,000.00, which does not affect the 2016 funding request.

On a motion by Norma Cusick, seconded by Emrich Stellar, the Board unanimously approved the Professional Services Authorization in the amount of \$100,000.00 (8-0).

Allentown Division – Roof Replacements Phase II

Frank Leist gave an overview of the project for the design phase. He is asking for approval of the Capital Project Authorization – Design Phase in the amount of \$78,500.00 which includes the Professional Services Authorization to D'Huy Engineering in the amount of \$48,500.00.

On a motion by Linda Rosenfeld, seconded by Emrich Stellar, the Board unanimously approved the Capital Project Authorization – Design Phase in the amount of \$78,500.00 which includes the Professional Services Authorization to D'Huy Engineering in the amount of \$48,500.00 (8-0).

SYSTEM OPERATIONS OVERVIEW

Robert Kerchusky gave an overview of the systems for the month of November. The Water Filtration plant produced 18.9 mgd and the Kline's Island Wastewater Treatment plant average flow was 28.1 mgd. Projects that are ongoing at the Water Filtration plant are the painting of the High Lift pump gallery and the No. 2 High Lift pump motor installation. Ongoing projects in the wastewater system include the cables pulled into the Power Zone House, Sulfa-Treat replacement on the Combined Heat & Power System, the head replacement on the Cat engine, Meter station No. 5 replacement of mag-meters, and the installation of temporary insulation at Arcadia wastewater plant.

He also reported that the groundwater level is at 73.3' which is approximately 6' below normal. This information comes from the USGS gauging station in Haafsville. Some discussion followed.

STAFF COMMENTS

None.

SOLICITOR'S COMMENTS

None.

OTHER COMMENTS

None.

EXECUTIVE SESSION

Aurel Arndt stated that this is his last week before retiring on December 18, 2015. He thanked the Board and everyone for their support, help and guidance through the years and wished everyone well.

The Chairman called an Executive Session at 1:37 p.m. to discuss potential litigation and also a personnel matter.

The Executive Session ended at 2:10 p.m.

ADJOURNMENT

There being no further business, the Chairman adjourned the meeting at 2:10 p.m.

Richard H. Bohner
Secretary

REGULAR MEETING MINUTES
January 11, 2016

The Regular Meeting of the Lehigh County Authority was called to order at 12:20 p.m., on Monday, January 11, 2016, Chairman Brian Nagle presiding. Other Members present at the commencement of the meeting were: Linda Rosenfeld, Tom Muller, Richard Bohner, Norma Cusick, and Scott Bieber. Deana Zosky was on the conference phone. Authority Staff present were Liesel Gross, Brad Landon, Frank Leist, Pat Mandes, John Parsons, Robert Kerchusky, Chuck Volk, and Lisa Miller.

Chairman Nagle noted that we received a Thank You note from Aurel Arndt regarding his retirement.

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, 2014.

REVIEW OF AGENDA

Liesel Gross stated that she would like to discuss the 2016 Goals at the end of the end of the Action/Discussion items.

EXECUTIVE SESSION

Liesel Gross stated there would be an Executive Session immediately following the regular agenda items to discuss potential litigation.

PUBLIC COMMENTS

None.

ACTION AND DISCUSSION ITEMS

Board Norms

Liesel Gross provided the updated Norms for clarification based on questions and comments from the Board discussion at the December 14, 2015 meeting.

On a motion by Tom Muller, seconded by Richard Bohner, the Board unanimously approved the Board Norms as amended (7-0).

Bonding Issue

Ed Klein researched LCA's bonding for Authority Staff and others who have financial authorization. He found that two specific Board positions, the Treasurer and Assistant Treasurer, are bonded for \$250,000.00 each. LCA has a criminal policy that covers all Authority employees for \$250,000.00. Ed explained that LCA is covered under this policy whether the act is criminal or not. However, some wire transactions exceed \$250,000.00 in value; therefore, the Authority's policies have been amended to increase the coverage limit to \$500,000.00 for wire transfers.

2016 Board Meeting schedule

Liesel Gross suggested that the Board may want to discuss this when there is a full Board present. The Board wanted to approve the 2016 schedule and adjust it as necessary in the future.

On a motion by Norma Cusick, seconded by Linda Rosenfeld, the Board unanimously approved the 2016 Meeting schedule (7-0).

Chairman Nagle said that this issue will be revisited by the Board at a later date.

2016 Goals

Liesel Gross stated that she will explain what the goal setting process is and what the priorities are for 2016. She presented a PowerPoint presentation to review and discuss these goals with the Board. The topics discussed were LCA's strengths, weaknesses, opportunities, and threats. The goals for 2016 are Financial Health, Asset Management, Environmental/Regional Leadership, and Organizational Development. Discussion followed, and Liesel Gross explained that additional plans and details will be provided for additional discussion at a future Board meeting.

SYSTEM OPERATIONS OVERVIEW

None.

STAFF COMMENTS

None.

SOLICITOR'S COMMENTS

None.

OTHER COMMENTS

None.

EXECUTIVE SESSION

The Chairman called for an Executive Session at 1:39 p.m. to discuss potential litigation.

The session ended at 1:40 p.m.

ADJOURNMENT

There being no further business, the Chairman adjourned the meeting at 1:40 p.m.

Richard H. Bohner
Secretary

MEMORANDUM

Date: January 18, 2016

To: Authority Board
From: Phil DePoe
Subject: Allentown Water Filtration Plant: Emergency Generator for Schantz and Crystal Spring Pumps - Design Phase

MOTIONS / APPROVALS REQUESTED

No.	Item	Amount
1	Capital Project Authorization – Design Phase	\$37,500
2 ⁽¹⁾	Professional Services Authorization – D’Huy Engineering	\$22,500

(1) Included in the Capital Project Authorization.

PROJECT OVERVIEW

The project consists of the installation of a permanent generator, transfer switches and associated electrical work for the Crystal and Schantz Spring Pumps. The main water supply sources in Allentown are the Little Lehigh Creek, Schantz Spring, and Crystal Spring. The Lehigh River serves as a supplemental surface water supply. During normal plant operation, the Little Lehigh Creek provides 10 million gallons/day (MGD) of water while the Schantz Spring provides 7 MGD and the Crystal Spring providing 4 MGD. Water from the Little Lehigh Creek is pumped to the distribution system by three pumps. Water from the Schantz Spring and Crystal Spring is pumped into the distribution system by two pumps (each). If plant power is lost, no water can be pumped into the distribution system and the City must rely on the finished water storage system. With the addition of a permanent emergency generator for the Schantz and Crystal Pumps, water can continue to be pumped into the system during an extended power outage.

FINANCIAL

This Project will be funded by the LCA Allentown Division.

PROJECT STATUS

Awaiting design phase approval.

THIS APPROVAL – DESIGN PHASE

The design phase includes activities that are necessary to prepare bid documents for the emergency generator.

PROFESSIONAL SERVICES

D'Huy has been assisting LCA with various project recently at the water filtration plant. Due to their knowledge of the plant, LCA is recommending that D'Huy be awarded the design phase of this project. The scope of work includes the following:

1. Perform field observations to fully scope the project
2. Provide basis of design memorandum
3. Prepare bid drawings and specifications
4. Conduct pre-bid conference and respond to all RFIs
5. Review bids, bonds, insurance to insure contract compliance
6. Assis with contract preparation

PROJECT SCHEDULE

The current schedule proposes a December 2016 completion date.

FUTURE AUTHORIZATIONS

Future authorization for this project includes the construction phase.

CAPITAL PROJECT AUTHORIZATION

PROJECT NO.:	AD-W-16-2	BUDGET FUND:	Allentown Div\Wastewater\Capital
PROJECT TITLE:	Allentown Water Filtration Plant: Emergency Generator for Schantz and Crystal Spring Pumps - Design Phase		PROJECT TYPE:
THIS AUTHORIZATION:	\$37,500	<input checked="" type="checkbox"/>	Construction
TO DATE (W/ ABOVE)	\$37,500	<input type="checkbox"/>	Engineering Study
		<input type="checkbox"/>	Equipment Purchase
		<input type="checkbox"/>	Amendment

DESCRIPTION AND BENEFITS:

The project consists of the installation of a permanent generator, transfer switches and associated electrical work for the Crystal and Schantz Spring Pumps. The main water supply sources in Allentown are the Little Lehigh Creek, Schantz Spring, and Crystal Spring. The Lehigh River serves as a supplemental surface water supply. During normal plant operation, the Little Lehigh Creek provides 10 million gallons/day (MGD) of water while the Schantz Spring provides 7 MGD and the Crystal Spring providing 4 MGD. Water from the Little Lehigh Creek is pumped to the distribution system by three pumps. Water from the Schantz Spring and Crystal Spring is pumped into the distribution system by two pumps (each). If plant power is lost, no water can be pumped into the distribution system and the City must rely on the finished water storage system. With the addition of a permanent emergency generator for the Schantz and Crystal Pumps, water can continue to be pumped into the system during an extended power outage.

D'Huy has been assisting LCA with various projects recently at the water filtration plant. Due to their knowledge of the plant, LCA is recommending that D'Huy be awarded the design phase of this project. See attached Board Memo for further project details.

Authorization Status:

Requested This Authorization	
<i>Design Phase</i>	
Staff	\$10,000
Engineering Consultant	\$22,500
Miscellaneous	\$0
Contingency	\$5,000
Total This Authorization	\$37,500

Future Authorizations: Construction Phase	\$462,500
Total Estimated Project	\$500,000

REVIEW AND APPROVALS:

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



Lehigh County Authority

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

PROFESSIONAL SERVICES AUTHORIZATION

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

Date: January 18, 2016
Requested By: Phil DePoe

Approvals
Department Head: _____
Chief Executive Officer: _____

Allentown Water Filtration Plant: Emergency Generator for Schantz and Crystal Spring Pumps – Design Phase

D'Huy Engineering, Inc. will provide design phase services as summarized below for the aforementioned project.

Professional Services (1)
1. Perform field observations to fully scope the project
2. Provide basis of design memorandum
3. Prepare bid drawings and specifications
4. Conduct pre-bid conference and respond to all RFIs
5. Review bids, bonds, insurance to insure contract compliance
6. Assist with contract preparation

(1) For design phase services only.

Professional Services:

Cost Estimate (not to be exceeded without further authorization): \$22,500.00

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:** _____



MEMORANDUM

Date: January 25, 2015

To: Authority Board

From: Charles Volk, P.E. Asset Management Engineer

Subject: Suburban Division – Facility Condition Assessment, Water and Sewer Facilities

MOTIONS /APPROVALS REQUESTED:

No.	Item	Amount
1	Capital Project Authorization - Study Phase (year 1 capital plan)	\$120,000
2	<u>Contract Award (consultant):</u>	\$71,220
**	<ul style="list-style-type: none"> • Facility Condition Assessment Study – D’Huy Engineering, Inc. 	

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

PROJECT OVERVIEW:

Many of LCA’s Suburban Division water and sewer facilities include components that are approaching the end of their design service life, and a comprehensive facilities evaluation is needed to assess condition. The Facility Condition Assessment Study will include 11 sewer facilities and 16 water facilities in the Suburban Division. The facilities within the scope of study were selected based upon the following factors: 1) presence of buildings/structures at the site; 2) the age of the facility (not recently constructed, upgraded or examined in a separate study); 3) the relative importance and criticality of the facility. The Study is to comprise of a detailed evaluation of the structure, roof, HVAC system and electrical system at each facility. The Study will utilize asset management protocols, and enable prioritizing and planning capital improvement projects through evaluation of asset condition, expected life, and criticality parameters in order to maintain an acceptable level service for the asset and help strategize capital funding.

FINANCIAL:

The Project will be funded by the LCA Suburban Division.

PROJECT STATUS

The Request for Proposals was issued early December and four (4) proposals were received on 1/12/16. Proposals were reviewed and the firm, D’Huy Engineering, Inc., was selected as most qualified (see bids below).

THIS APPROVAL: Study Phase

BIDS

Four (4) engineering firms were invited to submit proposals for the project in early December 2015. The firms were selected based on prior LCA project performance and general expertise. A mandatory pre-proposal meeting was held December 10, 2015 at LCA’s main office where representatives from the four (4) consulting firms attended. Proposals were received on January 12, 2016. The proposal amounts are as shown in Table 1 below:

Table 1 – Bid Results	
Study Phase	
Consultant	Amount
<i>D’Huy Engineering</i>	<i>\$71,220</i>
<i>ARRO Consulting</i>	<i>\$51,602</i>
<i>BCM Engineers</i>	<i>\$73,988</i>
<i>JMT</i>	<i>\$53,740</i>

Each firm was pre-qualified based on prior completed LCA projects. D’Huy was selected as most qualified based on the following factors:

- 1) Demonstrated project understanding and approach
- 2) Prior similar project experience
- 3) Experience with asset management program development
- 4) Strength of project team
- 5) Adequate manhours budgeted to preform comprehensive evaluation
- 6) Familiarity with LCA and track record

MATERIAL PROCUREMENT: N/A

PROFESSIONAL SERVICES : See attached.

SCHEDULE

Assuming approval at the January 25, 2016 Board meeting, the Study is anticipated to be complete by July 31, 2016.

FUTURE AUTHORIZATIONS

The project will yield a list of upgrade projects, to be ranked according to criticality and then to be prioritized by staff and incorporated into the CIP. The estimated cost and amount of future authorizations is unknown at this time.

CAPITAL PROJECT AUTHORIZATION

PROJECT NO.:	SD-S-11 & SD-W-11	BUDGET FUND:	Suburban Capital
PROJECT TITLE:	Facility Condition Assessment, Suburban Division Water and Sewer Facilities	PROJECT TYPE:	<input type="checkbox"/> Construction <input checked="" type="checkbox"/> Engineering Study <input type="checkbox"/> Equipment Purchase <input type="checkbox"/>
THIS AUTHORIZATION:	\$120,000		
TO DATE (W/ ABOVE)	\$ 120,000 (year 1 capital plan)		

DESCRIPTION AND BENEFITS:

Many of LCA's Suburban Division water and sewer facilities consist of aging components that are approaching the end of their design service life, and a comprehensive facilities evaluation is needed in order to plan improvements. The Facility Condition Assessment Study will include 11 sewer facilities and 16 water facilities in the Suburban Division. The facilities were selected based upon the following factors: 1) presence of buildings/structures at the site; 2) the age of the facility (not recently constructed, upgraded or examined in a separate study); 3) the relative importance and criticality of the facility. The Study is to comprise of a detailed evaluation of the structure, roof, HVAC system and electrical system at each facility. The Study will utilize asset management protocols, and enable prioritizing and planning capital improvement projects through evaluation of asset condition, expected life, and criticality parameters in order to maintain an acceptable level service for the asset and help strategize capital funding.

Authorization Status:

<i>Previous Authorizations</i>	
<i>none</i>	
Requested This Authorization	
Study Phase	
Staff	\$15,000
Professional Services	\$71,220
Construction Allowance for Emergency Critical Repairs Identified	\$28,780
Contingency	\$5,000
Total This Authorization	\$120,000

REVIEW AND APPROVALS:

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



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PROFESSIONAL SERVICES AUTHORIZATION

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

Date: January 25, 2016

Requested By: Charles Volk

Approvals

Department Head: _____

Chief Executive

Officer: _____

Suburban Division – Facility Condition Assessments, Water and Sewer Facilities

D’Huy Engineering, Inc. will perform the study phase services (upon LCA authorization) for the Condition assessment of specific Suburban Division water and sewer facilities, including incorporation of asset management protocol and cost opinions for needed upgrade work in accordance with the Request for Proposals.

Professional Services ⁽¹⁾
1. Perform Suburban Division facility condition assessment evaluation
2.
3.
4.

(1) For Design Phase Only.

Please reference the cover Memo for additional information.

Study Phase:

Cost Estimate (not to be exceeded without further authorization): \$71,220

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



(For Authority Use Only)

Authorization Completion:

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

**PROFESSIONAL SERVICES AUTHORIZATION
INDEMNIFICATION
Allentown Division
WWTP: Digester Cover System Replacements**

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

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

Accept the terms of the professional services authorization dated January 19, 2015 attached; and

Agree to indemnify and hold harmless LCA, the City of Allentown, their employees, agents, officials, representatives, attorneys, and assigns from any and all liability, arising out of all activities conducted by the Consultant in connection with this contract and/or the Consultant's performance hereof, including but not limited to payment of all fees for its/their attorneys and all incidental litigation expenses in the event LCA or any of its employees, agents, officials, representatives, attorneys, and assigns are sued upon a claim emanating from the Consultant's performance thereof. 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: _____