



BOARD MEETING AGENDA – May 8, 2017

1. Call to Order

- NOTICE OF MEETING RECORDINGS

Meetings of Lehigh County Authority's Board of Directors that are held at LCA's Main Office at 1053 Spruce Road, Wescosville, PA, may be recorded for viewing online at lehighcountauthority.org. Recordings of LCA meetings are for public convenience and internal use only and are not considered as minutes for the meeting being recorded, nor are they part of public record. Recordings may be retained or destroyed at LCA's discretion.

- *Public Participation Sign-In Request*

2. Review of Agenda / Executive Sessions

- *June 12, 2017 Board meeting is cancelled*

3. Approval of Minutes

- *April 24, 2017 Board meeting minutes*

4. Public Comments

5. Action / Discussion Items:

FINANCE AND ADMINISTRATION

- *2016 Risk Management Report (yellow)*

WATER

WASTEWATER

- *Allentown Division – Wastewater Treatment Plant: Electrical Substation Replacements (blue)*

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

7. Monthly Financial Review (2nd Board meeting per month)

8. Monthly System Operations Overview (2nd Board meeting per month)

9. Staff Comments

10. Solicitor's Comments

11. Public Comments / Other Comments

12. Executive Sessions

13. Adjournment

UPCOMING BOARD MEETINGS

Meetings begin at Noon at LCA's Main Office, unless noted otherwise below.

May 22, 2017

June 26, 2017

July 10, 2017

PUBLIC PARTICIPATION POLICY

In accordance with Authority policy, members of the public shall record their name, address, and discussion item on the sign-in sheet at the start of each meeting; this information shall also be stated when addressing the meeting. During the Public Comment portions of the meeting, members of the public will be allowed 5 minutes to make comments/ask questions regarding non-agenda items, but time may be extended at the discretion of the Chair; comments/questions regarding agenda items may be addressed after the presentation of the agenda item. Members of the public may not request that specific items or language be included in the meeting minutes.

REGULAR MEETING MINUTES
April 24, 2017

The Regular Meeting of the Lehigh County Authority was called to order at 12:00 p.m. on Monday, April 24, 2017, Chairman Nagle presiding. Other Members present at the commencement of the meeting were: Linda Rosenfeld, Jeff Morgan, Richard Bohner, Norma Cusick, and Deana Zosky. Authority Staff present were Liesel Gross, Chuck Volk, Ed Klein, Pat Mandes, John Parsons, Chris Moughan, Tim Carlson and Lisa Miller.

REVIEW OF AGENDA

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

Liesel Gross noted there will not be an Executive Session unless the Board requires one. Ms. Gross also noted that due to the AWWA Annual Conference in Philadelphia on June 12th which she and other Authority staff are attending, the Board meeting scheduled for that day will need to either be cancelled or rescheduled. Chairman Nagle asked if the Board required an Executive Session to which members replied no.

APPROVAL OF MINUTES

April 10, 2017 Regular Meeting Minutes

On a motion by Richard Bohner, seconded by Norma Cusick, the Board approved the Minutes of the April 10, 2017 meeting (6-0). Linda Rosenfeld abstained.

PUBLIC COMMENTS

None.

ACTION AND DISCUSSION ITEMS

Annual Non-Union Employee Performance Evaluation & Merit Increases

Liesel Gross reviewed information provided with the Board agenda regarding the Annual Performance Evaluation & Merit Increases for Non-Union employees. The 3% increase pool was included in the 2017 Budget. There are 57 Non-union employees, 50 of which were eligible for an increase. The Board did not request additional information.

Water Filtration Plant – Treatment Process Review – Discussion Only

Liesel Gross introduced Tim Carlson, the Authority's Water Plant Manager. Mr. Carlson presented a PowerPoint presentation to the Board and Staff on the conversion from aluminum sulfate (Alum) to poly aluminum chloride (PACL) at the Water Filtration Plant.

Scott Bieber arrived at 12:08 p.m.

Mr. Carlson explained that PACL has more advantages than Alum such as less chemical usage, effective treatment is less dependent on source water pH, and PACL works more efficiently with colder source water. A coagulant study was conducted from May 2015 to May 2016 using various types of PACL with various raw water conditions and source water blends. In conclusion of the study, the DF-801 PACL was chosen for further testing because of its overall excellent treatment. The only concern was an increase of filter clogging, requiring more frequent backwashing of the filters. The Authority is currently undergoing a study to monitor the corrosion level.

The Board questioned why change to a different coagulant now. Mr. Carlson explained that with the increased production required to supply the Suburban Division, the plant must be running more continuously, including during storms. In high stream flow and high turbidity conditions, the Alum is not effective or efficient enough to meet strict guidelines of the Partnership for Safe Water program, even though

the Authority still meets DEP guidelines in these conditions. Ms. Gross noted that this chemical treatment changeover is permitted by DEP.

Liesel Gross informed the Board that Tim Carlson heads the Water Loss Team for the Authority and is working to bring our water loss numbers down. Water loss in the City system is at 19% for 2017. Chairman Nagle explained that when the Authority was evaluating the concession agreement, water loss was around 25%. The Authority continues to make efforts to reduce water loss.

City Signatory Billing Meter Evaluation

Pat Mandes gave an overview of the description of work for the Professional Services Authorization approval request which authorizes the development of metering standards for the City signatory wastewater billing meters. An evaluation completed in 2015 and 2016 determined that two-thirds of the billing meters are not reading accurately. Ms. Mandes is asking for approval of the Professional Services Authorization in the amount of \$94,000.00 for Arcadis to assemble a "blue ribbon panel" to develop a set of metering standards, assess all signatory metering sites against the new standards and make recommendations for improvements. The municipal signatories will be required to follow-up on the recommendations and make the necessary improvements.

Deana Zosky inquired about the accuracy of the modeling work that has been completed if the sewer meters are not reading accurately. She also expressed concern about the potential overlapping scope of work included in several recent approval requests related to metering and modeling. She said it is not clear how all the work is related to each other in a comprehensive program since the approval requests are being presented separately. Pat Mandes explained that the various approvals don't overlap because billing meters, flow meters for modeling work, and metering for rehab effectiveness are all separate efforts that look at sewer flows in different ways for different purposes. In addition, as part of the preparation of a capital improvements plan to address the USEPA Administrative Order, all signatories are working together to negotiate a Memorandum of Understanding about how costs will be shared, which will include using the metering and modeling data to allocate costs. While it would be ideal for the work to be presented in a comprehensive manner for approval at one time, it is important to note that the municipal signatories are part of the decision-making process and the projects are being brought forward as the signatories are meeting and agreeing on each step.

On a motion by Linda Rosenfeld, seconded by Norma Cusick, the Board approved the Professional Services Authorization for Arcadis in the amount of \$94,000.00 (7-0).

MONTHLY FINANCIAL REVIEW

Ed Klein gave an overview of the March 2017 Financial Report. Chuck Volk stated that Capital Projects will start coming to the Board for approval starting in late May or early June. Waiting for grant approval on two large water projects has held up a couple of projects.

MONTHLY SYSTEM OPERATIONS OVERVIEW

John Parsons reviewed the March 2017 Operations Report that was attached to the Board agenda. Mr. Parsons noted that Schantz Spring will be used as a major watershed indicator in the coming months. Schantz Spring peaked at over 8 mgd (million gallons per day) this month which is an excellent indicator that the local water supplies are looking better.

Norma Cusick asked about the customer service inquiries. Liesel Gross said about 85% are billing questions and the rest are miscellaneous inquiries.

Mr. Parsons noted that the #5 tank at the Kline's Island Wastewater Treatment plant is now back on-line. The two SSOs noted on the operating report were during dry weather. One was in Upper Milford Township regarding a clean-out pipe that ruptured and leaked and the other one was caused by root and grease build-

up. Mr. Parsons also noted that we are still in a Drought Watch but hopeful that it will be lifted soon as there are signs of improvement.

STAFF COMMENTS

Liesel Gross informed the Board that at a May Board meeting, Kevin German will present the 2016 Risk Management report.

SOLICITOR'S COMMENTS

Not present.

PUBLIC COMMENTS / OTHER COMMENTS

None.

EXECUTIVE SESSION

None.

ADJOURNMENT

There being no further business, the Chairman adjourned the meeting at 1:08 p.m.

Richard H. Bohner
Secretary



LEHIGH COUNTY AUTHORITY

**2016 RISK MANAGEMENT
ANNUAL REPORT**

By:
Risk Manager – Kevin German
HR Manager – Kathy Martin

INTRODUCTION

The following report reviews the Lehigh County Authority 2016 Risk Management Program. Our program effort has been designed to maintain a high safety awareness level, ensure a safe work environment by recognizing and reducing work hazards, and maintain reasonable insurance costs. Employee training programs are outlined throughout this report.

2016 TEAM MEMBERS

Members of the Risk Management Team who contributed their efforts to achieve a successful year included: James Yoachim, Bill Brogan, Mike Walter, Andrew Werley, Mike Brunovsky, Gretchen Schleppey, George Lill, Dave Adams, Tim Carlson, Steven Stahlberg, Ryan Sirak, Mike Cawley, Mark Kudera, Bob Keenan, Joe Thompson, Bob Adams, Tim Geiger, Tony Oswald, Bob Argust, Kathy Martin and Kevin German.

RISK MANAGEMENT

Our Mission

- Promote a safe and healthy work environment by performing regular site and equipment inspections.
- Reduce costs related to accidents and injuries.
- Protect the resources and assets of the Authority.

Lehigh County Authority continued its comprehensive risk management efforts in 2016. Delaware Valley Insurance Trust (DVIT) completed a comprehensive inspection of all our facilities including Water Filtration Plant, Wastewater Treatment Plant, Distribution and Collection Facility and Suburban Facilities. Managing the Authorities property and casualty risks as part of risk management.

RISK CONTROL

Immunization Program

The immunization program offers booster shots for tetanus and inoculations for hepatitis B to all operation and lab personnel. This program is consistent with the recommendations of wastewater industry experts, and provides protection from possible exposure to disease-carrying microorganisms. Four employees participated in the 2016 program.

Safety Shoes

All employees that are required to wear safety shoes are reimbursed a portion of the purchase cost.

Fire Extinguisher Inspection

Fire extinguishers are inspected yearly. If any extinguisher fails the inspection they are repaired or replaced with a new fire extinguisher promptly.

Site Inspection

All water and wastewater facilities were inspected by the RM Team, for areas of potential high exposure. Linda Poole, Sr. Risk Control Consultant, Delaware Valley Workers' Compensation Trust, also inspected our facilities in September 2016. No citations were issued. Overall, the system inspections indicate that LCA continues to provide a safe work environment. It was suggested that LCA suburban should upgrade the receptionist windows and office door with bullet resistant glass. This project was completed in late 2016, early 2017.

Workers Compensation, Accident Reports and Liability Claims

There were 12 workers compensation claims, 4 lost time accidents, 4 restricted duty incidents, 3 property claims, and 22 liability claims.

Safety Incentive Program

This program helps to promote safety throughout the year. Some of the portions of this program provide weekly safety talks and videos. Near miss reports found helpful and used to enhance safety. Employees received a fire extinguisher for their safety efforts in 2016. Two safety awards were disbursed at our annual employee meeting for safety efforts put forth by employees.

Safety Training Program

Traditional training programs and formats were utilized during the year. DVD, videotapes, and "tail gate talks" continue to provide the most effective training participation and results. Ongoing training efforts focus on:

- Confined Space Entry
- Trenching and Shoring
- Personal Protective Equipment
- Defensive Driving
- First Aid Training
- Tailgate talks
- Fork Lift Training
- Backhoe Safety

Areas of Exposure

Legal, General and Automobile Liability – Purchased from Pennsylvania Intergovernmental Risk Management Association (PIRMA, a local government risk pool). Insurance provider is H.A. Thomson Company.

Property Insurance – Acquired from our broker Murray Securus. Insurance provider is CNA Insurance Company. Authority asset values set at \$347,541,721.

Workers' Compensation – Workers Compensation is purchased from Delaware Valley Workers Compensation Trust (DVWCT).

Pollution Liability Policy – Purchased from Greenwich Insurance Company.

INSURANCE MANAGEMENT

The Authority has obtained its liability insurance coverage through the Pennsylvania Intergovernmental Risk Management Association (PIRMA) pool since 1991. In 2015, the cost for General Liability, Auto Liability and Comprehensive Damage and Public Officials Liability remains fairly stable since 2013. Crime Coverage was raised from \$250,000 to \$500,000 for all employees handling money and investments.

Workers' Compensation Coverage has been obtained through the Delaware Valley Workers Compensation Trust, a municipal pool of 58 entities. For the past few years, the Authority was recognized as one of the top performers within the trust.

Commercial Property Insurance is controlled by Murray Secures. There was an increase in total property premium since the acquisition of the city facilities. We added coverage for vehicles parked in garage, 2 vacuum-flush truck and TV truck. (High value trucks)

Pollution Liability Policy is provided by Greenwich Insurance Company. It covers the Wastewater Treatment Plant located on Route 100, Upper Macungie Township and Wastewater Treatment Plant located in the city.

The following table shows the 4-year trend in insurance costs. Over all it shows a 1.77% increase.

**2016 Annual Report
Insurance Cost Trend**

	2013		2014		2015		2016	
	Annual Premium	% Change from Prior-yr	Annual Premium	% Change from Prior-yr	Annual Premium	% Change from Prior-yr	Annual Premium	% Change from Prior-yr
PIRMA Pool:								
General Liability	\$ 196,699	287.41%	\$ 192,239	-2.27%	\$ 184,799	-3.78%	\$ 182,807	-1.08%
Auto Liability & Comprehensive Damage	\$ 45,339	297.50%	\$ 49,795	9.83%	\$ 53,500	7.44%	\$ 42,142	-21.23%
Public Officials Liability	\$ 26,391	150.20%	\$ 33,198	25.79%	\$ 34,691	4.50%	\$ 38,091	9.80%
Property								
Contract with City	\$ 20,000	0%	\$ 20,000	0%	\$ 20,000	0.00%	\$ 20,000	0.00%
Total PIRMA	\$ 288,429	59.30%	\$ 295,232	2.36%	\$ 292,990	-0.76%	\$ 283,040	-3.40%
Other Insurance Costs:								
Property - Murray Securus	\$ 197,193	82.03%	\$ 197,800	0.31%	\$ 175,000	-11.53%	\$ 177,000	1.14%
Worker's Compensation	\$ 83,555	231.88%	\$ 188,719	125.86%	\$ 224,020	18.71%	\$ 243,046	8.49%
Pollution Liability (PTP & WWTP)	\$ 7,822	-4.50%	\$ 7,872	0.64%	\$ 9,494	20.60%	\$ 9,476	-0.19%
Employee Dishonesty Bond	\$ 700	29.63%	\$ 971	38.71%	\$ 1,500	54.48%	\$ 2,881	92.07%
Treasurer Bonds	\$ 200	0.00%	\$ 190	-5.00%	\$ 200	5.26%	\$ 200	0.00%
Total Other Insurance	\$ 289,470	748.71%	\$ 395,552	36.65%	\$ 410,214	3.71%	\$ 432,603	5.46%
Grand Total	\$ 577,899	168.59%	\$ 690,784	19.53%	\$ 703,204	1.80%	\$ 715,643	1.77%

Lehigh County Authority Risk Management

5-Year Expense History

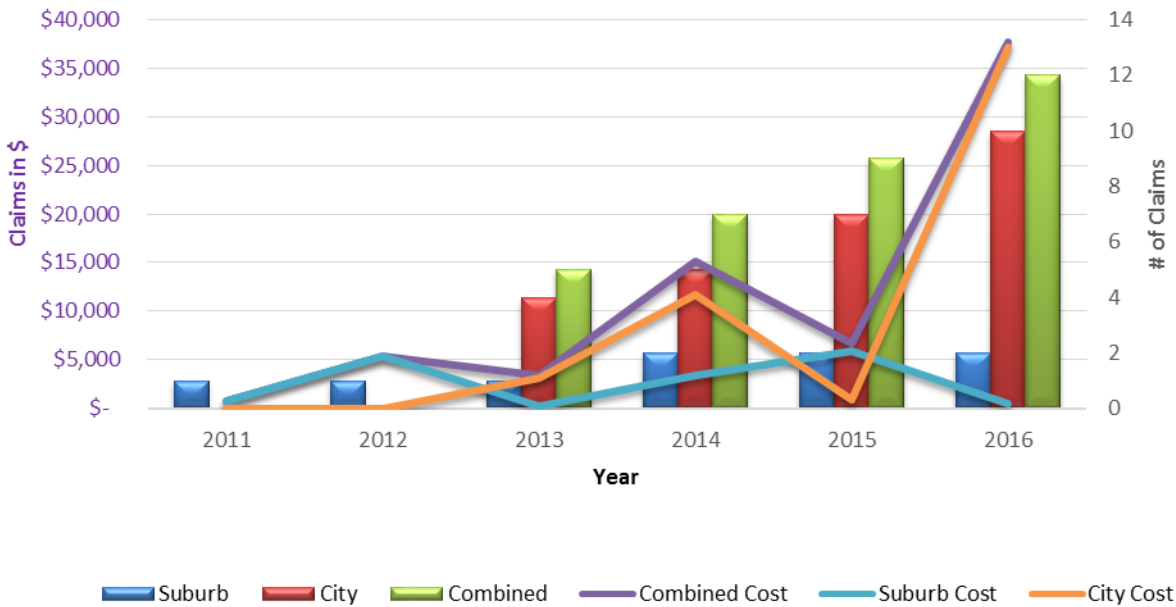
	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>
Immunizations	\$ 2,415	\$ 3,250	\$ 192	\$ 90	\$ -
Safety Shoes	\$ 12,372	\$ 11,646	\$ 8,573	\$ 1,520	\$ 1,200
Fire Extinguishers	\$ 3,977	\$ 1,867	\$ 5,500	\$ 1,140	\$ 735
Safety Training & Equipment	\$ 36,156	\$ 52,900	\$ 33,233	\$ 310	\$ 100
Luncheon/Incentive	\$ 3,315	\$ 461	\$ 4,200	\$ -	\$ 1,100
CDL Drug & Alcohol Tests	\$ 1,860	\$ 1,145	\$ 1,354	\$ 220	\$ 221
RM and Safety Training Salary	\$ 62,908	\$ 70,432	\$ 90,417	\$ 10,900	\$ 8,745
Total	\$ 123,003	\$ 141,701	\$ 143,469	\$ 14,180	\$ 12,101
2014 increase due to addition of city salaries, training and equipment.					

LCA Vehicle Incident and Claim History

Year	Suburban # of incidents	City # of incidents	Combined # of incidents	Combined Cost	Suburban Cost	City Cost
2011	1	0	0	\$ 728	\$ 728	\$ -
2012	1	0	0	\$ 5,420	\$ 5,420	\$ -
2013	1	4	5	\$ 3,326	\$ 267	\$ 3,059
2014	2	5	7	\$ 15,086	\$ 3,376	\$ 11,710
2015	2	7	9	\$ 6,709	\$ 5,862	\$ 847
2016	2	10	12	\$ 37,673	\$ 479	\$ 37,194

Vehicle Incident Reports and Self-Insurance Claims

as of December 31, 2016



Accomplishments for 2016 - Plans for the Risk Management Team

The Risk Management Team remains committed to the safety of LCA employees and the protection of LCA assets. As such, the Team will continue to stress safety and will investigate and monitor all insurance options that will reduce costs and maintain adequate protection.

Accomplishments

- Created four individual safety teams to function as one.
- Employee records were updated in the Health & Safety manual and Emergency Response Plans (ERP).
- Processing 12 workers compensation claims, 4 lost time, 4 restricted duty claims, 3 property claims, and 22 liability claims.
- Received \$6,000 rebate for high performance rating from DVIT
- Added additional safety training for employees
- Upgrading old safety equipment - continued.

Looking forward to 2017

- Decrease self-insurance cost
- Eliminate Workers' Compensation Claims
- Eliminate security issues at City Wastewater Treatment Plant
- Add additional safety training for employees
- Inspect suburban and city facilities for security upgrades
- Old safety equipment upgraded throughout LCA facilities.
- Update the Health and Safety Manual
- Provide refresher class for Incident Command System for all Managers

MEMORANDUM

Date: May 8, 2017

To: Liesel Gross, C.E.O.
From: Phil DePoe
Subject: Allentown Division -
Kline's Island WWTP Electrical Substation Replacements – Design Phase

MOTIONS / APPROVALS REQUESTED:

No.	Item	Amount
1	Capital Project Authorization – Design Phase	\$209,000
2	Professional Services Authorization – Keystone Engineering Group (1), (2)	\$159,000

- (1) *Included in the Capital Project Authorization*
- (2) *Does not include bid or construction phase related engineering services*

PROJECT OVERVIEW

The Kline's Island Wastewater Treatment Plant's electrical service is supplied by one of two 12.4 kV power transmission line feeds from the electric utility PP&L. The 12.4 kV transmission lines enter Substation No. 1 and connect to the 12.4 kV switchgear, which distributes the 12.4 kV to the 480V Substation No. 1 and to the 480V Substation No. 2. The 480V Substation No. 1 & 2 distribute the power to various MCC's and loads throughout the WWTP. The equipment was originally installed in 1977, has reached the end of its useful life, and needs to be replaced.

Keystone Engineering Group will be used for the engineering design services. They performed an evaluation of Substation No. 1 and No. 2 in August of 2016 and have acquired extensive knowledge of the plant's electrical system.

The project is anticipated to bid ready by October 2017. Notice to Proceed shall be given in January 2018 and substantial project completion is expected by April 2019.

FINANCIAL

The City has reviewed and approved this project as a Major Capital Improvement, thereby allowing the cost to be recovered via a capital cost recovery charge in the LCA Allentown Division.

PROJECT STATUS

Pending Board approval of the design phase.

THIS APPROVAL - DESIGN PHASE

Lehigh County Authority (LCA) intends to retain the services of an engineering consulting firm to provide the design related services. Approval for the 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 approval:

Professional Services ⁽¹⁾
1. Perform coordination with PP&L as required

2. Attend progress and coordination meetings with LCA personnel
3. Review electrical loads to confirm the proposed equipment size
4. Prepare construction bid documents
5. Prepare updated construction cost estimates

(1) For Design Phase Only

CONSULTANT SELECTION PROCESS

LCA retained the Keystone Engineering Group in August of 2016 to prepare a report to evaluate the switchgear and substations while estimating the cost of these replacements. This report followed a report by Metcalf & Eddy, dated February 2005. Both reports recommend the replacement of Substation No. 2.

In March of 2017, LCA requested a proposal from Keystone Engineering Group for the design of the upgrades as recommended in the electrical study. During this proposal phase, LCA was approached by a consultant team consisting of a local civil engineering firm subcontracting with a New York electrical engineering firm. LCA allowed the additional proposal in the interest of obtaining a competitive price and, upon further review, the proposals were essentially equal in price. Keystone was deemed most qualified based on their knowledge of the plant, strength of design team, and fair pricing. Therefore, LCA is recommending Keystone for this design approval.

PROJECT SCHEDULE

The project is anticipated to begin design in May of 2017. The project is anticipated to be bid ready by the middle of October 2017 with an anticipated project completion date of May 2019.

FUTURE AUTHORIZATIONS – BID AND CONSTRUCTION PHASE

Upon Design Phase approval, the project will be publicly bid in October of 2017. A Capital Project Authorization (CPA) Amendment will be presented to the Board in December of 2017 for approval of the Bid Phase and Construction Phase; and will include a professional services award, construction contract award, staff costs and other related components.

CAPITAL PROJECT AUTHORIZATION

PROJECT NO.:	AD-S-17-3	BUDGET FUND:	Allentown Div\Wastewater\Capital
PROJECT TITLE:	Allentown Division – WWTP Electrical Substation Replacements: Design Phase	PROJECT TYPE:	<input checked="" type="checkbox"/> Construction <input type="checkbox"/> Engineering Study <input type="checkbox"/> Equipment Purchase <input type="checkbox"/> Amendment No. 1
THIS AUTHORIZATION:	\$209,000		
TO DATE (W/ ABOVE)	\$209,000		

DESCRIPTION AND BENEFITS:

The Kline’s Island Wastewater Treatment Plant’s electrical service is supplied by one of two 12.4 kV power transmission line feeds from the electric utility PP&L. The 12.4 kV transmission lines enter Substation No. 1 and connect to the 12.4 kV switchgear, which distributes the 12.4 kV to the 480V Substation No. 1 and to the 480V Substation No. 2. The 480V Substation No. 1 & 2 distribute the power to various MCC’s and loads throughout the WWTP. The equipment was originally installed in 1977, has reached the end of its useful life, and needs to be replaced.

Keystone Engineering Group will be used for the engineering design services. The project is anticipated to be bid ready by October 2017. Notice to Proceed shall be given in January 2018 and substantial project completion is expected by April 2019.

Please see attached Board Memo for further project details.

Authorization Status:

Requested This Authorization	
Design Phase	
Staff	\$30,000
Engineering Consultant	\$159,000
Miscellaneous	\$10,000
Contingencies	\$10,000
Total This Authorization	\$209,000

Future Authorizations	
Construction Phase	\$3,191,000

Total Estimated Project	\$3,400,000
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REVIEW AND APPROVALS:

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



Lehigh County Authority

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

PROFESSIONAL SERVICES AUTHORIZATION

Professional: KEYSTONE ENGINEERING GROUP
590 East Lancaster Avenue
Malvern, PA 19355

Date: May 8, 2017
Requested By: Phil DePoe
Approvals
Department Head: _____
Chief Executive Officer: _____

Allentown Division – Kline’s Island WWTP Electrical Substation Replacements – Design Phase

KEYSTONE will perform the design related services for the replacement of the two existing electrical substations and the existing 12.4 kV switchgear at the Kline’s Island Wastewater Treatment Plant (KIWWTP). The equipment has reached the end of its useful life and is in need of replacement.

Professional Services ⁽¹⁾
1. Perform coordination with PP&L as required
2. Attend progress and coordination meetings with LCA personnel
3. Review electrical loads to confirm the proposed equipment size
4. Prepare construction bid documents
5. Prepare updated construction cost estimates

(1) For Design Phase Only.

Please reference the cover Memo for additional information.

Design Phase:

Cost Estimate (not to be exceeded without further authorization): *\$159,000*

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



(For Authority Use Only)

Authorization Completion:

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

FINANCE & ADMINISTRATION

ACTION ITEMS

1. Suburban Water Capital Financing – May 22, 2017

The Board will be asked to approve a Parameters Resolution in advance of the sale of the Water Bonds scheduled for May 23, 2017.

DISCUSSION ITEMS

1. 2016 Risk Management Report – May 8, 2017

The 2016 Risk Management report will be presented to the Board for acceptance.

2. Geographic Information System (GIS) Field Application – May 22, 2017

Authority staff will present a demonstration of a new application (app) for mobile devices that has been developed in-house to support field crews locating Authority assets.

INFORMATION ITEMS

1. 2016 Audit & Financial Statements

The 2016 Audit and Financial Statements have been completed, and the Finance Committee will be contacted to schedule a meeting to review them in May. Following the committee’s review, the information will be presented to the Board for acceptance.

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

CERTIFICATES OF DEPOSIT

Fund	Bank	Location	Gross Amount	Date of Purchase	Date Due	Net Rate %
LLRI CR	Goldman Sachs Bank USA	New York, NY	245,000.00	3/30/17	3/28/19	1.6
Cons Wtr (2)	BMW Bank of North America	Salt Lake City, Ut	249,000.00	3/31/17	3/29/19	1.45
WW Capac Basin Street	American Express Centurion	Salt Lake City, Ut	248,000.00	4/7/17	4/5/19	1.65
Cons Wtr (2)	Wex Bank	Midvale, UT	98,000.00	4/7/17	4/8/19	1.5
WW Capac	Capital One Bank (USA) Nat'l Assn.	Glen Allen, VA	249,000.00	4/26/17	4/26/19	1.6
Cons Wtr (2)	MB Financial Bank, National Association	Chicago, IL	249,000.00	4/26/17	4/26/19	1.4

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

DISCUSSION ITEMS

1. **Stormwater Injection Wells – May 22, 2017 or June 26, 2017**

Authority staff will present information gathered from meetings/discussions with representatives from the Lehigh County Conservation District and the Pa. Department of Environmental Protection about the permitting process for stormwater injection wells and ways for the Authority to participate in the process to ensure its concerns about source water protection are addressed.

INFORMATION ITEMS

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. As of April 21, 2017 the project is out to bid with a mandatory prebid meeting scheduled for April 28, 2017. This project is identified as Un-Completed Work and will be funded by the City.

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. LCA is currently preparing project closeout documentation for our CCRC report submittal to the City of Allentown. This Project is identified as Schedule-7 Work and will be funded by LCA Allentown Division.

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 23rd Board Meeting. Construction began in April of 2017 and completion is expected by August of 2017. This capital project is funded by the LCA Allentown Division. **(No Change)**

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 short-term and long-term capital plans are being developed. The project is scheduled to be completed in Q2 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. **(No Change)**

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. The Public Water Supply (PWS) permit application package received from the consultant was reviewed and comments returned. **(No Change)**

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. The project will be advertised for bid in May.

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 to be bid in May 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 is in the process of addressing punch list item deficiencies. **(No Change)**

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. **(No Change)**

13. Suburban Division – Pine Lakes Pumping Station Improvements

This project was originally bid in July 2016 and bids were subsequently rejected due to the lack of competitiveness and significant exceedance of the engineer's estimate. The purpose of this project is to upgrade the original hydropneumatic well station (built in mid-1970s) to continue the level of service, replace aged and problematic equipment, reduce the probability and consequence of risk, and prolong the useful life of the station. The station is to be upgraded to a double pumping variable speed system with full SCADA telemetry. The project is to be bid in June 2017.

14. Developments

Water system construction is occurring in the following developments:

Highgate, Phase 3 (Dunbar Tract) SF4/5, 17 residential lots (sfd), UMT
 Spring View (Bortz Tract), 14 commercial units, UMT
 Stone Hill Meadows, 24 residential lots (sfd), LMT
 Trexler Business Center, 1 Commercial Lot with 6 commercial buildings, LMT
 Trexler Fields, Phase 1B/8/9, 100 residential lots (sfa), UMT

Water system plans are being reviewed for the following developments:

67 Werley Road, 112 apartments & clubhouse, UMT
 Ciocca 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
 Green Acres Mobile Home Court, master meter 590 existing units (sfd), UMT
 Hickory Park Estates, 3 residential lots (sfd), UMT
 Hillview Farms, 31 residential lots (sfd), LMT/SWT
 Indian Creek Industrial Park, 6 commercial lots, UMiIT, water and sewer
 Kohler Tract, 125 residential lots (sfa), UMiIT, water and sewer
 Lehigh Hills, Lot 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
 Weilers Road Twins, 82 residential lots (sfa), UMT
 Woodmere Estates, 60 residential units (sfd), UMT

WASTEWATER

ACTION ITEMS

1. **Allentown Division – Wastewater Treatment Plant: Electrical Substation Replacements – May 8, 2017**

This project involves the replacement of the existing 12.4 kV Switchgear and existing Substation No. 1 and No. 2. The equipment was installed in 1977 and has reached the end of its useful life. Approval of the design phase including the design engineer is being requested. Construction of the project is expected to begin in January 2018. The City has reviewed and approved this project as a Major Capital Improvement, thereby allowing the cost to be recovered via a capital cost recovery charge in the LCA Allentown Division.

2. **Tank Painting Project – Heidelberg Heights Wastewater Treatment Plant – May 22, 2017**

This project is part of LCA's Asset Management Program and involves the draining, cleaning, surface preparation, and painting of the interior and exterior Sequencing Batch Reactor tanks at the Heidelberg Heights wastewater treatment plant. The exposed tanks are 16 years old and require recoating to prevent degradation from the corrosive effects of wastewater and wastewater gases, and the environment.

3. **Allentown Division – Wastewater Treatment Plant: Security Upgrades – May 22, 2017**

This project involves the installation of security related equipment upgrades at the Kline's Island Wastewater Treatment Plant. Approval of the electrical contractor to install the security equipment is requested. Board approval of the CoStars Agreement with Tyco to purchase the security cameras, doors, etc. upfront was granted in January 2017. Construction of the project is expected to begin in July 2017. This project is identified as an Uncompleted Work in the Lease Agreement and will be funded by the City of Allentown.

DISCUSSION ITEMS

INFORMATION ITEMS

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

This project will permanently secure the frame and cover of approximately 10 aged brick manholes identified by current LCA staff. This work will eliminate inflow from entering these manholes and eliminate the potential for sanitary sewer overflows (SSO's) from these manholes. A kick off meeting has occurred with the City. Construction is expected to begin by July of 2017. The project is identified as Administrative Order and will be funded by the City. This will be the final cycle of the project.

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. Since the Board's emergency declaration at the January 9, 2017 Board meeting, the replacement drive was procured and installed ahead of schedule and the tank is now fully operational. The remaining mechanisms of Clarifier #5 and #6 have also reached the end of its useful life and will be replaced in late 2017. The design is currently underway and construction approval is expected at the June 26, 2017 Board meeting. This capital project will be 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 and construction was completed in late February of 2017. The new Primary No. 1 Digester is expected to be installed and operational by October 2017. This Project is identified in the Lease as a Schedule 7 (required) project and will be funded by the LCA Allentown Division. **(No Change)**

4. **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 24th, 2017 Board Meeting. The project is identified as Administrative Order Work and will be funded by the City. Construction is expected to begin in early 2019 and is expected to be complete in late 2020. **(No Change)**

5. **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)**

6. **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 project is in the process of being closed out **(No Change)**.

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

Project consists of sanitary sewer cleaning, inspections via CCTV, cured-in-place point repairs, pressure testing and chemical grout sealing of joints, and post construction inspection for sanitary sewer lines located in western and central Lehigh County previously identified as areas subject to leakage. This project is part of the SCARP program. Construction began in August 2016 and is expected to finish by Spring 2017. **(No Change)**

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

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

This project will upgrade the wastewater treatment plant (WWTP) headworks to install a mechanical fine screen, in order to protect the influent pumps and mitigate rag buildup. The project is being funded by the Lynn Township Suburban Division. The Notice to Proceed was issued on April 24, 2017.

10. **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.

Negotiations have begun with the City Solicitor's on a Memo of Understanding for the AO Project and means for paying for the City infrastructure.

11. **Suburban Division – Park Pump Station Upgrade**

The Park Pump Station is to be upgraded to address station capacity and age/condition issues, and prolong the service life of this critical facility. The existing pumps are to be replaced with dry pit submersible units, existing motors are to be replaced with high efficiency units, and the old rheostat type motor drives are to be replaced with variable speed drives. The MCC is also to be replaced along with miscellaneous mechanical improvements. The project is currently in design phase with design completion and start of bid phase planned for late summer 2017.