



LEHIGH COUNTY AUTHORITY

October 28, 2013

BOARD MEETING AGENDA

1. Call to Order
2. Review of Agenda
 - *Public Participation Sign-In Request*
3. Executive Sessions
4. Approval of Minutes
 - *September 9, 2013 Workshop Meeting*
5. Public Comments
6. Action / Discussion Items

FINANCE AND ADMINISTRATION

- *None*

WATER

- *Allentown Division Cast Iron Main Replacement Program – Design Phase and Pipe Prioritization Assessment Program for Cycles 1-3 (Approval)*

WASTEWATER

- *Allentown Division- WWTP- Replacement of Perth System Compressor (Approval)*

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

NOVEMBER MEETINGS

Workshop Meeting
Board Meeting

November 11 – 12:00 p.m.
November 25 – 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.

WORKSHOP MEETING MINUTES
September 9, 2013

The Workshop Meeting of the Lehigh County Authority was called to order at 12:22 p.m., on Monday, September 9, 2013, Chairman Asa Hughes presiding. Other Members present at the commencement of the meeting were: Tom Muller, Emrich Stellar, Norma Cusick, and Scott Bieber. Authority Staff present were: Aurel Arndt, Liesel Adam, Frank Leist, Bradford Landon, Pat Mandes, Robert Kerchusky, and Cristin Keppel.

Agenda Review

Mr. Arndt stated there would be three additional information items and one action item following the regular agenda.

M&T Bank – Resolution 9-2013-1 (Approval)

Mr. Landon reviewed the resolution and explained that M&T Bank was appointed as trustee on the Concession bonds as well as for some of the escrow accounts established pursuant to the Concession Agreement. As a result, the bank has requested the Authority pass a resolution in regard to authorized signers for resultant transactions. He noted that the resolution is primarily required M&T language.

On a motion by Tom Muller, seconded by Emrich Stellar, the Board unanimously approved Resolution 9-2013-1 (5-0).

Western Lehigh Interceptor (WLI) Manhole Inspection (Approval)

Ms. Mandes referred to the attached memo, noting that inspection of the WLI pipe and manholes to assess the extent of the defects in order to reduce infiltration and extend the life of the buried infrastructure is part of the ongoing Physical Condition Assessment Program. The Program consisted of CCTV inspection of the pipe utilizing Pipeline Assessment Certification Program (PACP) ratings and inspection of manholes and a review of the inspection records by Arcadis. She explained a Professional Services Authorization is attached for Arcadis in the amount of \$110,000 for the assessment of 570 manholes in the WLI System. Arcadis will prepare maps for in the field based on the LCA GIS system. Manholes will be inspected with structural and leakage issues identified. Information necessary for the design and rehabilitation implementation will be collected. Arcadis will review the findings and will recommended follow-up actions. Ms. Mandes also noted that each assessment thus far has cost less than expected.

On a motion from Ms. Cusick, seconded by Mr. Bieber, the Board unanimously approved a Capital Project Authorization amendment and Professional Services Authorization for Arcadis for \$110,000 (5-0).

Arcadia West Pumping Station Modifications Project (Approval)

Mr. Leist referred to the attached memorandum and explained a Capital Project Authorization Amendment for the construction phase, Professional Services Authorizations for construction engineering services by T&M Associates and construction management services by Cowan Associates, and the award of the General Construction and Electrical Construction contracts are recommended for approval. He stated the project consists of installing new pumps and appurtenances, along with fencing, paving, SCADA control and security system at the Arcadia West pumping station in Weisenberg Township, Lehigh County to increase the reliability of fire protection, increase pumping efficiency, address corrosion, and add system controls and security. Mr. Leist summarized the bidding processes and various changes to this project via the memorandum. Some discussion followed.

On a motion from Mr. Muller, seconded by Ms. Cusick, the Board unanimously approved a Capital Project Authorization amendment for \$1,166,746, which included Professional Services Authorizations and general, electrical and security construction contracts for the Arcadia West Pumping Station (5-0).

Additional Information Items***EPA Administrative Order***

Mr. Arndt addressed the recent *Morning Call* article regarding the subject Order. He noted that the article was inaccurate and no extension request has been made to the EPA at this time and explained that one could be made in the future, as this project is on the list of unresolved issues to be addressed with the City.

Ms. Adam also noted that she put a call into the reporter to find out the source of that information and to have it corrected.

Little Lehigh Dam Project

Mr. Arndt reminded the Board of the project in conjunction with Wildlands Conservancy and the Fish and Game Commission regarding breaching some of the dams along the Little Lehigh Creek. He noted that further research is being done to make sure that this will not cause sediment buildup or any other problems in the City system. Some discussion followed.

Staffing

Mr. Arndt gave a brief update regarding some of the staffing transitions made because of the Concession. He noted that the designated Lab Director decided to stay with the City; therefore, an alternative has been made, and that position has now been changed to Compliance Director, with Pat Mandes taking over. He stated that a lab director is still needed, but Suburban Testing Laboratories is being used for the interim. Mr. Arndt stated that Bob Kerchusky has now moved into Pat's old position as the Wastewater Services Director and the Authority is currently interviewing for a new Water Services Director. He also noted that the Chief Operator at the Kline's Island WTP has resigned; therefore, some promotions are happening to fill vacant positions in the plant. Peter Burkhardt has been promoted to IT Manager, this position will replace the need for a Chief Information Officer. Also, Emily Gerber has been promoted to Special Project Manager to handle the Concession Contract and other cross-functional matters. Lastly, a few other vacancies are being filled, mostly in the City Division, so a strong recruitment and hiring plan is still in process.

Ms. Adam added that once all positions are filled, there will be 150 positions within the organization.

Automated Meter Reading (AMR) (Approval)

Mr. Arndt explained that the City was carrying out an AMR project to replace old meters, just as the Authority has done; about 80% of the project is completed. The contract to finish this work was inherited with the Concession agreement. The current contract with Itron expires on September 15, 2013. The contract can be rebid – or we could issue a change order before the expiration date to have Itron finish the project. Although this project was assigned to the Authority to administer, the City will be paying for the remainder of the project. Some discussion followed.

On a motion from Mr. Bieber, seconded by Ms. Cusick, the Board unanimously approved a Change Order be executed with Itron to finished the AMR project in the City of Allentown system (5-0).

There being no further business, the Chairman adjourned the meeting at 1:22 p.m.

Norma A. Cusick
Assistant Secretary

FINANCE & ADMINISTRATION

ACTION ITEMS

1. *None.*

DISCUSSION ITEMS

1. *None.*

INFORMATION ITEMS

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

Fund	Bank	Location	Gross Amount	Date of Purchase	Date Due	Net Rate %
LLRI CR	Sonabank	Charlottesville, VA	250,000.00	10/2/2013	4/2/2015	0.40
LLRI CR	Beal Bank USA	Las Vegas, Nv	250,000.00	10/2/2013	10/1/2014	0.40
LLRI CR	Compass Bank	Birmingham, Al	250,000.00	10/2/2013	11/3/2014	0.40
LLRI CR	Comenity Capital Bank	Salt lake City, UT	250,000.00	10/7/2013	4/7/15	0.50

Fund Descriptions for Investments:

LLRI CR Little Lehigh Relief Interceptor Capital Reserves

WATER

ACTION ITEMS

1. **Allentown Division Cast Iron Main Replacement Program – Design Phase and Pipe Prioritization Assessment Program for Cycles 1-3 (Approval)**

The Operating Standards in the Lease Agreement require the annual replacement of two-miles of aged pit and/or spun cast-iron water mains, excepting in the first year where only one-mile is required. This work also has to be coordinated with the City's Streets program. Over the term of the Lease approximately ~99-miles of the ~180-miles of cast iron mains will be replaced. Approval of the Design Phase and Pipe Prioritization Assessment Program for Cycles 1-3 is requested. A memo and authorizations for additional information are attached (*pink*).

DISCUSSION ITEMS

1. *None.*

INFORMATION ITEMS

1. **Phase 2 Interconnection with Allentown**

Livengood Excavators intends to address restoration at Schantz Road this fall. We were informed by South Whitehall Township that the contractor did not remove in-flow inserts from sanitary sewer manholes prior to installation of paving riser rings when overlaying W. Walnut Street and Mertz Lane last fall. The inserts must be cut out and new inserts installed. ***No Current Activity***

2. **Arcadia West Pumping Station Modifications**

Contract documents have been executed with Eastern Environmental Contractors, Inc., the General Contractor, and High Peak Electrical, Inc., the Electrical Contractor. A preconstruction conference was held on October 16. We anticipate issuing the Notice to Proceed on October 23rd.

3. **Upper Milford Central Division Radon Mitigation Study**

Board authorized this project in June and our consultant Cowan Associates (CA) is currently evaluating the existing wells in the Upper Milford Central Division (a/k/a Buss Acres). A Draft report was received in late December and a Draft Final report was received in early April. The final report is currently being reviewed by LCA staff. The report findings will be presented to the Board later this year.

4. **LCA Facilities Emergency Power Project**

The Board authorized the construction phase of this project at the April 8, 2013, Work Shop meeting. Notices of Award were issued on April 9, 2013 to Barry J. Hoffman Co., Inc. – Electrical Construction and Lisbon – General Construction. All required documentation from the contractors has been received and Notices to Proceed (NTP) were issued on May 20, 2013. A pre-construction meeting was held on June 11, 2013. All site work, except final grading and seeding is completed at a majority of the facilities. All generators have been received and installed onsite. The electrical contractor is currently working on wiring and installing the automatic transfer switches. The project is on schedule with substantial required no later November 16, 2013. In a related matter, the delivery of the 500 KW generator for the Office Operations Center purchased by LCA through the Co-Stars program has been delayed until February 2014. When ordered the lead time was 8-10 weeks which would have put

delivery in early October. Efforts to expedite this delivery working with the supplier and factory have not produced any results.

5. Developments

Water system construction is occurring at the following developments:

Valley West Estates, Phases 4, 5 & 6, 46 residential lots (sfd), UMT.

West Hills Business Center, 8 industrial lots, WeisT, water and sewer

Water system plans are being reviewed for the following developments:

Above & Beyond (personal care facility), 2 commercial lots, UMT

Diocesan Pastoral Center, 2 commercial lots, 3 additional lots and residual lot for existing cemetery, LMT

Grant Street Townes, 18 residential lots (sfa), WashT

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

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

Liberty at Mill Creek, 2 industrial lots, UMT

Morgan Hills, 40 residential lots (sfd), WeisT, water and sewer

North Whitehall Commercial Center (Walmart), 5 commercial lots, NWT, water and sewer

Route 100 Bypass & Cetronia Road Proposed Commercial Development, 1 commercial lot with 4 buildings having auto, convenience, financial and day care uses, UMT

Shepherd's Corner, 1 commercial lot, LMT

Spring Creek Properties Settlement Subdivision (formerly Spring Creek Properties Subdivision I), 16 commercial and industrial lots, 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

Woodmont at Upper Macungie (formerly Rabenold Farms II), 288 apartment units and clubhouse, (Portion north of I-78), UMT

WASTEWATER

ACTION ITEMS

1. **Allentown Division- WWTP- Replacement of Perth System Compressor (Approval)**

A Perth mixing system which runs on stored methane gas is used to assure proper of mixing and heating of sludge in the anaerobic digesters at the WWTP. This function is critical for maximizing biological degradation of the incoming raw sludge. The Perth systems are proprietary units manufactured by Siemen's. The existing aged compressor on Digester No. 2 needs to be replaced. Approval to purchase a replacement retro-fit compressor is requested. Reference attached Memo (*green*) and supporting documentation for additional information.

DISCUSSION ITEMS

1. *None.*

INFORMATION ITEMS

1. **Infiltration and Inflow (I&I) Program Update**

The following is work planned for 2013:

- Submission of reports to EPA and DEP.
- CCTV work in areas identified as have high leakage to determine the extent of the leakage. Malcolm Pirnie will review the CCTV video and determine a Basis of Rehab.
- Keystone Consulting Engineers (KCE) is generating the population projections for the LCA service area to be used in the Level of Service modeling.
- Completion of the Level of Service Modeling for future growth.
- Rehab effectiveness metering in Phase 1 pipe lining project areas to determine the reduction in peak flows as a result of the rehab work.
- Phase 2 of Signatory pipe lining projects as determined by KCE.
- Rehab effectiveness metering in Phase 2 pipe lining project areas.
- Alternative Modeling and feasibility analysis to evaluate the various alternatives to achieve the preliminary objectives. The alternatives will include various combinations of I & I elimination, storage and capacity increases.
- Long term flow meters will continue on a limited basis. Two rain gauges and meters remain in the system.
- Preliminary Program Objectives Evaluation Report will be submitted to DEP by the end of 2013. This document will define the current system performance and assess what it will take to achieve the system preliminary objectives. The report will include a discussion of the investigation and evaluation work completed including flow evaluation, SSES prioritization, modeling, current and future level of service, current and future system sizing requirements, and will propose the Level of Control for system operation.
- The development of the Capital Improvements Plan is scheduled to begin by the end of the year. This will identify the rehab needs, replacement needs, expansion

requirements, costs of improvements and schedule for implementation to achieve the program objectives. **No Current Activity.**

2. Wastewater Treatment Capacity

The Memo of Understanding (MOU) regarding working together on a joint Act 537 Plan with the City was never executed with the City. We have revised the MOU and will be again submitting it to the City so that they can have representation on the project.

A Communications Plan was developed by the consultant with input from LCA and the City. A stakeholder's group has been formed and the kick-off meeting was held in mid-January at the Lehigh County Administration Building. The Stakeholders Advisory Committee (SAC) consists of either Municipal Managers or Municipal Officials from each of the City and LCA Signatories. It is expected that there will be 5 meetings with the SAC during the Study to keep the Committee up to date on Plan with the expectation that the adoption of the plan with the various Signatories will be completed in a short period of time.

Talks continue with DEP on the effluent standards applicable to a discharge to the Jordan Creek. A meeting was held with DEP in late May to discuss the Jordan Creek discharge. DEP indicated water quality standards will be applicable to the plant effluent. We had requested Reuse Standards which are less stringent but DEP will require the secondary drinking water standards. We have since received a letter from DEP with the specific requirements for performing a study of the Jordan Creek that must be completed prior to the issuance of final effluent standards. We have recently completed Total Dissolved Solids (TDS) testing and have compared them to TDS data from several years ago. The trend is an increase in the TDS in the plant effluent. This could potentially mean that an upgraded Pretreatment Plant would require TDS removal such as Reverse Osmosis.

A meeting was held with the DRBC to discuss updating the prospective effluent limits for the various alternatives. The model will be refined and the grandfathered loads for Phosphorus and Ammonia will be updated based on the actual Kline's Island data. A model run will be completed in the near future.

LCA purchased 100,000 gallons of allocation from Salisbury Township at \$6.00 per gallon.

The WWTP data evaluation was completed by the consultant and the process/mass flow diagrams were presented to review the team.

A presentation will be made at the November Workshop to update the Board and staff on the 537 Planning. It will include the latest information on the Jordan Creek investigation, DRBC Special Protection Waters (SPW) requirements and conveyance issues.

3. Northern Lehigh Wastewater System

The project is composed of the following:

Wastewater Treatment Plant (on a 5-acre tract at KidsPeace)

In March, LCA representatives met with North Whitehall Township (NTW) Supervisor, Steve Pany; Solicitor, Lisa Young; and Township Manager, Jeff Bartlett to discuss the Act 537 Plan. In summary, for the westside of Rt. 309 (the 1-5 year service area) LCA has agreed to limit the size of the Wastewater Treatment Plant (WTP) to 200,000 GPD which in essence reflects the need for this area. Any expansion beyond 200,000 GPD would require NWT approval.

September 18, 2012, after six months of hearings, the Supervisors granted approval of the Conditional Use for the proposed WTP with nine conditions. We have received the written decision from the Township and have accepted all conditions. In late November 2012 the opposition, the Friends of the Jordan, appealed the Township decision to Lehigh

County Court of Common Pleas. Legal Briefs were filed by the Voice of the Jordan (Voice), NWT and LCA. Argument took place on Wednesday May 29, 2013 with Judge Edward Reibman presiding. On June 5, 2013 the Court ordered "that the decision of the NWT Board of Supervisors dated October 23, 2012 is hereby reaffirmed". However, on July 29, 2013 the Voice filed an appeal of the previous Court ruling.

The total cost of the WTP including soft costs and KidsPeace acquisition costs is estimated at \$4.69 million. **No current activity**

Offsite Conveyance Facilities (OSCF)

Wal-Mart has stopped design of the necessary conveyance facilities, which includes gravity sewers, a pump station and force main to deliver the wastewater from their proposed development and other future wastewater customers to the wastewater treatment facilities until a cost sharing agreement is reached with LCA. Wal-Mart has proposed that LCA assume the responsibility of designing, permitting and constructing the OSCF, which is a change from the previous plan where Wal-Mart had the responsibility. Ongoing cost-sharing negotiations are still on hold. **No current activity.**

The construction cost of the conveyance facilities is estimated at \$1.354 million.

Kids Peace Agreement

A revised amendment to the Agreement has been sent to KidsPeace. It primarily focuses the financial impact on the Jordan Creek Wastewater system because of KidsPeace's sale of the 101 Acre parcel to Lehigh Carbon-Community College (LCCC). The 101 Acre parcel was an integral economic component for LCA in the 2006 Agreement. Kids Peace has filed for Chapter 11 Bankruptcy we are investigating how this may impact our Agreement.

Act 537 Plan (Plan) Revision

NWT continues to work on developing an alternate a solution for the wastewater treatment needs for a revised 1-5 year service area which would include a WTP located on the eastside of Route 309 that would discharge to the Coplay Creek. LCA has agreed to provide support and expertise. Recent discussions with NWT indicate that the Pennsylvania Department of Environmental Resources (PADEP) has agreed to allow data from the on-site sewer system evaluations and water testing conducted for the current Plan to be used for any Plan revisions. NWT has requested and will receive shortly preliminary wastewater effluent discharge standards from DEP and has met with the Delaware River Basin Commission (DRBC) has verified that water quality modeling will be required for effluent discharge on the Coplay Creek. A conceptual short term service area collector system layout has also been developed. NWT continues discussions to secure a site for the proposed WTP and to secure commitments to connect from property owner along the proposed route. **No current activity**

4. Arcadia West WWTP Improvements

Construction activity continues at the site with about 85% of the work completed by the end of September. Equipment installation has begun, with wiring for power and control underway. During October, the pump station will be upgraded and vendor startup efforts will begin. The total project is on schedule with a cost estimate of \$3,502,300.

5. Wynnewood Terrace Pump Station & Force Main Replacement

Design work is complete, for regulatory submission and approvals, on a below grade self-contained pump station with submersible pumps and a new 6" force main.

6. Park Pump Station Improvements

Fuel Tank Replacement – Staff has received and is reviewing the final specifications and plans for replacement of the fuel tank at the Park Pump Station. We expect to place the work to bid by the end of the year.

7. LCA WTP- Truck Waste Receiving Station

Truck Waste Receiving Station (TWRS):

The Board awarded the General and Electrical construction contracts at the January workshop meeting. The contractors have returned the construction Agreements for our execution. Notices to Proceed (NTP) to the respective contractors were issued on February 26, 2013 and a pre-construction meeting was held on March 7, 2013. Construction is underway and on schedule. Start-up of the facility took place on October 17, 2013.

Digester Mixer Replacements:

Notice to Proceed for the Construction Phase of the project was issued to both the General and Electrical contractors on October 8, 2012. Electrical construction work is approximately 80% complete, as most of it could be accomplished without draining the digesters. The General contractor has completed the installation of mixers in the first digester and the digester is now operational. The 2nd digester is now be drained and to facilitate mixer installation.

As a note; the mixers will be installed one digester at a time, as it is necessary to always have two digesters operating. Assuming no major difficulty in draining the remaining digesters we expect the project will be completed in the 1st quarter of 2014, however additional issues with draining the digesters may extend the completion date.

PPL E-Power Customizable Energy Program:

Applications have been submitted for energy savings rebates and verification methodologies for both the Digester Mixer Replacements and Truck Waste Receiving Station. PPL has finally responded and is requiring that temporary sub-meters be installed to set a base line and verify estimated energy savings for the digester mixers.

8. City Division- WWTP Dewatering Building Motor Control Centers

The project includes the replacement of five aged motor control centers at the aforementioned facility. We expect an RFP for design services was issued on Monday October 15, 2013. We anticipate seeking approval for the Design phase of the project at the November Board meeting.

MEMORANDUM

Date: October 23, 2013

To: Authority Board
From: Jason Peters, Frank Leist
Subject: Allentown Division- Water Main Replacement Program
Design Phase & Pipe Prioritization Assessment Program for- Cycles 1-3

MOTIONS / APPROVALS REQUESTED:

No.	Item	Amount
1	Capital Project Authorization – Design Phase & Pipe Prioritization Assessment Program Cycles 1-3	\$887,952
2	Professional Services Authorization – Gannett Fleming, Inc. (1), (2)	\$467,952

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

PROJECT OVERVIEW: Through the Operating Standards of the Lease Agreement (Agreement) Lehigh County Authority (LCA) is required to annually replace two-miles of aged spun and/or pit cast-iron water mains following a certain criteria as described in the Agreement., except in the first year where only one-mile is required to be replaced. This work also has to be coordinated with not only the City's Streets program but other City of Allentown (COA) departments along with other outside agencies and private utilities such as UGI. Over the term of the 50-year Agreement approximately ~99-miles of the ~180-miles of cast iron mains will be replaced. Given this is an on-going program it is important to develop a buried asset water main replacement program to identify mains that will need replacement. Secondly, unlike replacing mains in a suburban area such as the Central Lehigh Division, designing and replacing mains in a highly populated urban area, with many underground facilities, continuous traffic and work restrictions in certain areas during civic events will present many challenges and will require a significant amount of coordination and some public relations efforts. At present it is envisioned that all main replacements for a given year will be covered by a single construction contract.

PROJECT STATUS:

Pending Board approval of the Design Phase for Cycles 1-3

THIS APPROVAL-DESIGN PHASE- CYCLES 1-3

Lehigh County Authority (LCA) intends to retain the services of an engineering consulting firm to provide, design related services and a Pipe Prioritization Assessment Program for Cycles 1-3 of the Allentown Division Main Replacement Program. Optional construction related engineering services, is not requested at this time and will be requested annually as needed, on a cycle by cycle basis when the Construction Phase is presented to the Board for approval. The following table summarizes the professional services to be performed:

Professional Services ⁽¹⁾	
1.	Develop and Administer the Pipe Prioritization Assessment Program.
2.	Develop a Pipe Prioritization Assessment Report for the projected 5 year plan for compliance with the Agreement.
3.	Coordinate with City Streets Program, other City departments, outside agencies and utilities.
4.	Prepare plans and specifications for segments of main to be replaced.
5.	Prepare and obtain regulatory and municipal permits as required.
6.	Provide bidding services.
7.	Provide construction engineering services. <i>(optional future authorization)</i>
8.	Provide construction management services. <i>(optional future authorization)</i>
9.	Provide construction inspection services. <i>(optional future authorization)</i>

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

CONSULTANT SELECTION PROCESS:

To assure continuity and efficiencies for the program it is necessary to establish a long-term relationship with an engineering consulting firm. It was our goal to first select a firm based upon qualifications and then upon the best overall value.

In June, a Request for Qualifications (RFQ) was sent to seven national/regional engineering consulting firms, where they were asked to provide an overview of their qualifications and past experience for pipe replacement programs similar to this. The prospective consultants were encouraged to utilize local engineering firms as their sub-contractors for survey and other construction related services such as inspection. Four of the seven firms responded providing qualifications. The LCA Project Team composed of members of the LCA Capital Works and Allentown Division Distribution & Collection Staff reviewed the RFQs and interviewed three of the most qualified firms. As the team was comfortable with all the firms' presentations, all three were issued a very high level Request for Proposals (RFP)

LCA requested that the firms develop a more detailed scope of work and provide prices for water main replacement design, optional construction services; and a Pipe Prioritization Assessment Program; for three cycles of main replacement (5-miles) that will extend through the construction of main replacements in 2016. The cycles are as follows:

Cycle	Main Replaced	Design	Construction
1	1-mile	2013-2014	2014
2	2-miles	2014-2015	2015
3	2-miles	2015-2016	2016

Design and Construction Related Services

During the interview process the consultants expressed concerns about being able to provide a cost proposal for design and optional construction services, when at this juncture there are many unknowns, primarily that the specific locations of the main replacements have not been determined; and conditions vary greatly from a semi-suburban lower density area found in the

west end to urbanized high density areas that is representative of most of the City. There was also discussion regarding the variations in design requirements for City roads and PADOT roads.

To address this issue the LCA Project team divided the City into five-Main Replacement Areas (Area), based on like City Zoning districts and requested that the consultants provide a separate price per linear-foot by Area for each of the following services; design, bid, construction engineering, construction management and inspection services; it was understood that design and bid services would initially be award to the successful consultant, where the construction related services are optional could be awarded separately by the type of service solely at LCA's discretion.

The results of the proposals for design/bid services equated to the 5-miles of main that will be replaced over the three cycles are shown in Table 1 below:

Table 1
Cost for Design & Bidding phases for 5 Miles of Water Main Replacement

Firm	Low Cost Area		High Cost Area		Average Cost All Areas	
	Total Cost	Total # Man hours	Total Cost	Total # Man hours	Total Cost	Total # Man hours
Gannett Fleming	\$ 277,200	3077	\$ 332,640	3443	\$ 304,953	3278
CDM Smith	\$ 318,120	2940	\$ 388,608	3150	\$ 349,866	3048
Arcadis	\$ 391,248	2575	\$ 425,832	2865	\$ 402,798	2697

Pipe Prioritization Assessment Program

Includes the selection of water mains to be replaced using various sources of data including but not limited to pipe age, pipe type, break history, flow capability, geology and ground subsidence history. In addition, as part of the selection process is the coordination between PADOT, City Streets Department and utilities such as UGI that has an aggressive program to replace gas mains and services in the City. The goal of the coordination efforts at this stage will be to identify construction conflict issues and to establish street restoration cost sharing partnerships when possible to reduce over-all main replacement costs resulting in benefits for LCA's water customers. The results of the Proposals over the three-cycles are shown in Table 2 below.

Table 2
Pipe Prioritization Assessment Program

Firm	Cycles	Cost	Man-hours
Gannett Fleming ⁽¹⁾	1-3	\$ 135,312	1,115
CDM Smith ⁽²⁾	1- only	\$ 88,478	624
Arcadis ⁽²⁾	1- only	\$ 84,843	639

(1) Includes creation and administration of the Program by the consultant for all 3 cycles. LCA has the option to administer the program in cycle 3 resulting in a \$46,787.00 reduction in the consultants fee.

(2) Includes creation and administration of the Program for 1 cycle. The consultant would not provide a cost for cycles 2 & 3 therefore their proposal is deemed non responsive.

Based upon our review of all aspects of both the Technical and Cost Proposals submitted by the three firms, we recommend award of the Design Phase services and Pipe Prioritization Assessment Program for Cycles 1-3 of the project to Gannett Fleming. Their proposal is on scope and represents what we believe is the best overall value for the Authority. Gannett Fleming will perform the services outlined in their proposal dated October 2, 2013 and clarifications to their proposal sent via email. The requested Approvals shown on Table 3 below:

Table 3

Design / Bid Phase (1)	\$	332,640
Pipe Prioritization Program (2)	\$	135,312
Total	\$	467,952

(1) Represents highest cost as shown in Table 1

(2) Includes option for cycle 3 (\$ 46,787.00) may be deleted by LCA without penalty

As a note: Gannett Fleming will be utilizing Arthur A. Swallow Associates (ASA) is a local firm that is located 1003 - 1005 N. 19th Street Allentown, PA 18104. ASA has extensive experience in working in the City of Allentown, and in fact has been contracted by the City for numerous surveys. ASA has also worked for LCA, most recently providing the survey and base plans for the Oakland Park Main Replacement Project.

GANNETT FLEMING COMPANY INFORMATION & REFERENCE CHECK:

Gannett Fleming, Inc. was founded in 1915 and is headquartered in Camp Hill Pennsylvania. Gannett Fleming is a global infrastructure firm that provides planning, design, technology, and construction management services for a diverse range of markets and disciplines. With nearly 2,000 highly qualified individuals across a global network of 60 offices, including a dozen offices in Pennsylvania, Gannett Fleming is united in its passion to deliver excellence.

Gannett Fleming's quality policy is to "provide professional services that meet the requirements of clients and involve all personnel in continually improving work processes." As part of that commitment, Gannett Fleming has successfully achieved their goal of obtaining ISO 9004:2008 certification. This internationally recognized quality certification helps Gannett Fleming to conduct services in a manner consistent with ISO 9001:2008 standards and requirements that enhances their efficiencies and effectiveness to provide quality service and deliverables to meet their clients requirements

Previously, Gannett Fleming created the LCA Central Lehigh Division Hydraulic Model which was selected as one of three finalists for the Bentley 2012 worldwide "Be Inspired Awards" held in Amsterdam, Netherlands. Representatives of Gannett and a member of the LCA Capital Works Staff attended the conference. Along with our experience with Gannett Fleming we contacted Easton Suburban Water Authority & Newton Artesian Water Company to discuss their experiences that they both had on previous projects with Gannett Fleming for design services related to water main replacements in urban and city environments with a magnitude of complexity to them. Both firms reported that Gannett Fleming had the skills and manpower necessary to perform the work, was responsive to their needs, and met their expectations.

PROJECT SCHEDULE: A proposed schedule of three (3) cycles for the Program has been developed by the LCA Project Team and Gannett Fleming and assumes Board approval of the Design Phase and Pipe Prioritization Assessment Program at the October 28th Board meeting and in conjunction with the approach. The approach and associated schedule for each of the cycles are established to meet the requirements of the Agreement. Note that the construction period of each cycle is assumed to begin in early to mid March and end in early to mid October of each cycle year except for cycle 1 construction phase ending mid to late August with design of the next cycle's mains overlapping the construction phase of the previous cycle. The pipe prioritization,

design, bid, and construction phase schedules for each cycle are as shown in Exhibit "A"
Although not anticipated, it should be noted if NPDES permitting and approvals are required that the approximate cycle 1 anticipated construction phase deadline would likely be delayed too early to mid October.

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

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

CAPITAL PROJECT AUTHORIZATION

PROJECT NO.:	AD-W-13-1	BUDGET FUND:	Allentown Div\Water\Capital
PROJECT TITLE:	Allentown Division -Water Main Replacement Program Cycles 1-3	PROJECT TYPE:	
THIS AUTHORIZATION:	\$ 887,952	<input checked="" type="checkbox"/> Construction <input type="checkbox"/> Engineering Study <input type="checkbox"/> Equipment Purchase <input type="checkbox"/> Amendment	

DESCRIPTION AND BENEFITS:

Through the Operating Standards of the Lease Agreement (Agreement) Lehigh County Authority is required to annually replace two-miles of aged spun and/or pit cast-iron water mains, except in the first year where only one-mile is required following a certain criteria as described in the Agreement. Given this is an on-going program over the term of 50 years it is important to develop a Pipe Prioritization Assessment Program (Program) to identify mains that will need to be replaced using various sources of data including but not limited to pipe age, break history, flow capability, geology and ground subsidence history. In addition as part of the selection process is the coordination between PADOT, City Streets Department and other utilities. Once the Program has analyzed which water mains are to be replaced than design efforts will take place coordinating with all City of Allentown departments and other utilities that may have impact upon the Program.

The replacements of these mains are critical in meeting the requirements of the Lease Agreement but also will provide increased reliability of water service for our customers.

Please reference the cover Memo for additional information.

Authorization Status:

REQUESTED THIS AUTHORIZATION	
Design Phase	
Staff	\$190,000
Engineering Consultant Pipe Prioritization Program, Design, & Bid phase Services	\$467,952
Miscellaneous ⁽¹⁾	\$150,000
Contingencies	\$80,000
Total This Authorization	\$887,952

Future Authorization	
Construction Phase	\$8,427,048
Total Estimated Project	\$9,315,000

(1) Includes subsurface investigations such as geo-tech work, soft digs, ground penetrating radar if required; also permit fees and other miscellaneous costs.

REVIEW AND APPROVALS:

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



Lehigh County Authority

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

PROFESSIONAL SERVICES AUTHORIZATION

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

Date: October 23, 2013

Requested By: Jason Peters

Approvals

Department Head: _____

General Manager: _____

Allentown Division – Water Main Replacement Program

Gannett Fleming, Inc. will perform the design and bid related service and a Pipe Prioritization Assessment Program for Cycles 1-3 of the Allentown Division – Water Main Replacement Program in the following Professional Services.

Professional Services⁽¹⁾
1. Develop and Administer the Pipe Prioritization Assessment Program
2. Develop a Pipe Prioritization Assessment Report for the projected 5 year plan for compliance with the Agreement.
3. Coordinate with City Streets Program, other City departments, outside agencies and utilities
4. Prepare plans and specifications for segments of main to be replaced
5. Perform permitting services (regulatory and municipal).
6. Perform bidding services.

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

Please reference the attached Gannett Fleming, Inc. technical and cost proposal for both Engineering related services and the Pipe Prioritization Assessment Program along with clarifications to their proposal sent via email by Michael Brown of Gannett Fleming. Please reference the cover Memo for additional information.

Design Phase:

Cost Estimate (not to be exceeded without further authorization): \$467,952

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:** _____

GPJ G.P. Jager & Associates

143 Miller Road
 Kinnelon, N.J. 07405
 phone: (973) 750-1180
 fax: (973) 750-1181
 email: gciannamea@jagerinc.com
 website: www.jagerinc.com

PAGE: 1

DATE: 10/22/2013

BID DATE:

JOB NUMBER: 8389

Water & Wastewater Representatives for the Tri-State Area

ADDRESS TO:

Lehigh County Authority
 Allentown Division
 112 W Union St
 Allentown, PA 18102
 Attn: Michael Walter
 Tel: 610.437.7624
 Fax: 610-437-7618

PROJECT NAME:

Siemens Envirex Parts

Quoted By: Gina Ciannamea

Email: gciannamea@jagerinc.com

CREDIT TERMS: NET 30 DAYS

SPEC SECTION

FREIGHT: INCLUDED

DELIVERY 16-18 WEEKS

EST SHIP WT:

LN	QTY	UM	DESCRIPTION/PART NUMBER	UNIT PRICE	EXT. PRICE
A	1	EACH	P/N: W2T521117 CMPRSE; CLAW; HORIZONTAL; 180 ICFM; 14.5 PSI	\$43,400	\$43,400
B	2	EACH	P/N: W3T200276 COMPRESSOR MOUNTING RAIL	\$0.00	\$0.00
C	2	EACH	P/N: W2T121847 (841-04820) GSKT; FULL FACE; 3 IN ID X 7.5 IN OD	\$0.00	\$0.00
D	1	EACH	P/N: W3T200277 HARDWARE KIT	\$0.00	\$0.00
<p>FREIGHT IS INCLUDED THERE IS A 30% RESTOCKING FEE PARTS ARE NOT RETURNABLE AFTER 60 DAYS Quotation is valid for 30 days from date of issue</p> <p><u>Please address your Purchase Order to:</u> G.P. Jager & Associates, Inc. 143 Miller Road Kinnelon, NJ 07450</p> <p>All prices are in U.S. Dollars Prices do not include any applicable taxes, duties or shipping charges, except as noted above Shipping charges will be prepaid and added</p> <p>-If sale is tax exempt, please provide Tax Exemption Certificate or ST3 and W-9 Form</p>					

SIEMENS

Industry

October 22, 2013

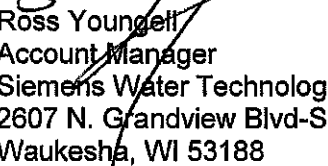
Subject: Representative Sole Source Letter

Attention: Municipalities-State of Pennsylvania

This letter is to confirm that G.P. Jager & Associates, Inc is contracted as the sole product representative for Siemens Water Technologies LLC. in the state of Pennsylvania for the following counties: All counties east of and including Potter, Clinton, Centre, Huntingdon and Fulton, for all products formerly sold under the Rexnord, Envirex, US Filter, FMC, Siemens Water Technologies, Siemens Industry, Inc. and the current Siemens Water Technologies LLC names.

Parts and services can only be purchased through G.P. Jager & Associates, Inc., or direct from Siemens Water Technologies LLC for the above mentioned name brands.

Regards,



Ross Youngell
Account Manager
Siemens Water Technologies LLC
2607 N. Grandview Blvd-Suite 130
Waukesha, WI 53188

Siemens Industry, Inc.

2607 N. Grandview Blvd.
Suite 130
Waukesha, WI 53188
USA

Tel: +1 262 547-0141
Fax: +1 262 547-4120
www.siemens.com/water



MEMORANDUM

Date: October 22, 2013

To: Authority Board

From: John Parsons / Robert J. Kerchusky, Jr. / Michael R. Walter

Subject: Allentown Division Wastewater Treatment Plant – Digester No. 2, Perth Mixing System -Compressor Replacement

MOTIONS /APPROVALS REQUESTED:

No.	Item	Amount
1	<u>Contract Award:</u> G.P. Jager & Associates, Siemen’s Claw compressor retrofit package.	\$43,400

OVERVIEW

The Allentown Waste Water Treatment Plant (WWTP) has numerous processes utilizing various types of equipment to treat the wastewater to meet regulatory standards.

A Perth mixing system which runs on stored methane gas is used to assure proper of mixing and heating of sludge in the anaerobic digester, which is critical for maximizing biological degradation of the incoming raw sludge. The Perth systems are proprietary units manufactured by Siemen’s.

The aged Yeomen’s compressor which is a component of the Perth system on Digester No. 2 is no longer manufactured and repair parts are scarce and if available they are very expensive. Our maintenance records indicate expensive major yearly overhauls on the current Yeomen’s compressor with just the normal wear and tear items such as bearing, vanes & gaskets being in excess of \$4,200. As such it is recommended that the old style compressor be replaced with a Siemen’s Claw compressor retrofit package.

The new style compressor package will be purchased directly from Siemen’s c/o G.P.Jager at the quoted price and includes a one year warranty, fabricated mounting hardware, gaskets, and fasteners for the installation. Once received, installation will be facilitated by in LCA maintenance personnel. Lead time for the compressor package is 16-18 weeks.

For the same previously mentioned reasons an identical Perth Claw Compressor retrofit was installed on Digester No. 1 earlier this year to replace an aged Yeoman compressor. To date, the new Claw Compressor has functioned flawlessly.

PROCUREMENT RECOMMENDATION

As previously mentioned the Perth system and components are proprietary equipment manufactured by Siemen's and must be purchased from G.P. Jager & Associates, Kinnelton, New Jersey who is the only authorized dealer for Seimens equipment in the PA / N.J. area. As such this justifies a sole-source award to G.P. Jager & Associates in the amount of \$43,400 for a Siemen's Claw compressor retrofit package as detailed in the attached price quote dated 09/27/2013.