



LEHIGH COUNTY AUTHORITY

March 26, 2013

BOARD MEETING AGENDA

1. Call to Order
2. Review of Agenda
 - *Public Participation Sign-In Request*
3. Executive Sessions
4. Approval of Minutes
 - *January 28, 2013 Regular Meeting Minutes*
 - *February 11, 2013 Workshop Meeting Minutes*
5. Public Comments – Non-agenda items only
6. Action / Discussion Items

ALLENTOWN WATER/SEWER LEASE

- *Chair Comments/Overview*
- *Public Input*
- *Executive Session*
- *Introduction of Resolution to Bid*
- *Board Comments/Discussion*
- *Approval of Resolution to Bid (if applicable)*

FINANCE AND ADMINISTRATION

- *Electrical Energy Demand Response Contract (Approval)*

WATER

- *LCA Facilities Emergency Power Project – Construction Phase (Approval)*

WASTEWATER

- *2013 Signatory CCTV Physical Condition Assessment (Approval)*
 - *Residual Property Option – Wastewater Treatment Plant (Approval)*
7. System Operations Overview
 8. Staff Comments
 9. Solicitor's Comments
 10. Other Comments
 11. Adjournment

APRIL MEETINGS

Workshop Meeting
Board Meeting

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

PUBLIC PARTICIPATION POLICY

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

REGULAR MEETING MINUTES
January 28, 2013

The Regular Meeting of the Lehigh County Authority was called to order at 12:18 p.m. on Monday, January 28, 2013, Chairman Asa Hughes presiding. Other Members present at the commencement of the meeting were: Richard Bohner, Brian Nagle, Emrich Stellar, Tom Muller, and Norma Cusick (via phone). Authority Staff present were: Aurel Arndt, Joseph McMahon, Frank Leist, Bradford Landon, Liesel Adam, Pat Mandes, Ed Bielarski, and Cristin Garger.

REVIEW OF AGENDA

Mr. Arndt stated there will be one additional item to follow the regular Agenda items.

EXECUTIVE SESSION

None.

PUBLIC COMMENTS

None.

APPROVAL OF MINUTES

December 10, 2012 Board Meeting Minutes

On a motion by Mr. Bohner, seconded by Mr. Muller, the Board unanimously approved the minutes of the December 10, 2012 Board Meeting (6-0).

ACTION AND DISCUSSION ITEMS

Knowledge Sharing Skills Development Project, Amendment #1 – Operations Department Career Path Program (Approval)

Ms. Adam reminded the Board that Brad Jurkovac from GHD was at the December Board meeting to explain the development of a career path program for the Operations Department as part of the Knowledge Management (KM) program. She reviewed the memorandum, stating that KM work in the Operations area has yielded some findings that are critical to address, including defining employee skills requirements and creating standard definitions for skills utilized in completing Operations work. These skill definitions would need to be developed before proceeding with additional development of Standard Operating Procedures (SOPs) for the KM program. She also explained that the Personnel Study completed in April 2012 created a new pay system that included new broad-banded multi-skilled job classes for workers, technicians, specialists and foremen. These job classes were designed to allow movement among and through the overlapping pay bands, but are not currently defined. These outstanding issues would be addressed through a new proposed program to fully catalog the skill requirements for operational work, define each skill, and develop a Career Path Program to clarify how decisions will be made regarding employee training and compensation adjustments as employees acquire new skills. Some discussion followed.

On a motion from Mr. Nagle, seconded by Mr. Stellar, the Board unanimously approved the Operations Department Career Path Program (5-1).

2012 Bonus Benchmark Program (Approval)

Mr. Bielarski shared the attached presentation regarding the Threshold and Bonus Benchmark criteria for the Authority and reviewed monetary value as a result of achieving eight of the ten Bonus Benchmarks. Some discussion followed.

On a motion from Mr. Muller, seconded by Mr. Bohner, the Board unanimously approved the 2012 Bonus Benchmark Program Award (6-0).

Water Rate Increases (Approval)

Mr. Arndt stated the Authority's 2013 Budget included an approximate 3% water rate increase, which is needed to keep pace with increasing costs and maintain adequate debt coverage on the outstanding bonds financing our water infrastructure.

On a motion from Mr. Bohner, seconded by Mr. Muller, the Board unanimously approved the 2013 Water Rate Increases effective April 1, 2013 (6-0).

Mr. Bohner inquired as to why some of the Certificates of Deposit (CD) rates were so low.

Mr. Bielarski indicated that when some CDs mature, there is not a desirable place for them, so they are put in low-rate, no risk CDs until needed.

SYSTEM OPERATIONS OVERVIEW

Mr. McMahon explained there were two sinkholes in the service area near water pipelines that had to be fixed and that one employee accident occurred regarding a manhole cover resulting in a hand injury being handled through Workers Compensation.

STAFF COMMENTS**Resolution 1-2013-1 – Trading Authorization (Approval)**

Mr. Landon explained this was a resolution reflecting trading authorization for brokerage accounts with JP Morgan Securities and its Affiliates and Designation of Persons to execute transactions on behalf of the Authority. He noted this was necessary to change this responsibility over to Mr. Bielarski since he replaced Doug Young and JP Morgan wanted facsimile signatures. The Board had several comments wanting provisions to be tied to the checks and balances in the Authority's financial guidelines, so the matter was postponed until February to reflect such revisions.

SOLICITOR'S COMMENTS

Mr. Landon explained that we have received a settlement check (~\$5,500) from Syngenta regarding a class action law suit. Atrazine ended up in our Buss Acres system so the Authority was eligible to collect, and the amount awarded reflects the size of the effected system.

OTHER COMMENTS

No comments.

EXECUTIVE SESSION

The Chairman called for an Executive Session at 1:43 p.m. to discuss potential property acquisition.

The session ended at 2:37 p.m.

ADJOURNMENT

There being no further business, the Chairman adjourned the meeting at 2:38 p.m.

Richard H. Bohner
Secretary

WORKSHOP MEETING MINUTES
February 11, 2013

The Workshop Meeting of the Lehigh County Authority was called to order at 12:24 p.m., on Monday, February 11, 2013, Chairman Asa Hughes presiding. Other Members present at the commencement of the meeting were: Tom Muller, Richard Bohner, Brian Nagle, Emrich Stellar, Norma Cusick, and Scott Bieber. Authority Staff present were: Aurel Arndt, Bradford Landon, Patricia Mandes, Joseph McMahon, Liesel Adam, Ed Bielarski, Frank Leist, and Cristin Garger.

Agenda Review

Mr. Arndt stated an Executive Session will be needed to discuss potential property acquisition, potential litigation, and collective bargaining unit negotiations following the regular agenda.

Amend the Authority's Articles of Incorporation to Extend its Term of Existence (Approval)

Mr. Arndt explained in order to submit a bid for the Allentown sewer and water systems concession, the Authority will need to have its terms of existence extended the full 50 year period allowed under the Municipality Authorities Act; at this point it is set to expire in 36 years. He stated this will also aid in obtaining favorable terms with the necessary financing to do so as well as other Authority financing for capital improvements. Mr. Arndt stated Resolution 2-2013-2 is necessary to amend the Authority's Articles of Incorporation. He also explained that the Lehigh County Commissioners must also approve the life extension and the issue will be presented to the County on Wednesday, February 13, 2013. Some discussion followed.

Nominating Committee

Mr. Muller, Chair of the Nominating Committee, indicated that he has spoken with current Board officers and a slate of officer will be presented for election at the Regular Meeting on February 25, 2013.

Executive Session

The Chairman called for an Executive Session at 12:44 p.m.

The session ended at 1:49 p.m.

There being no further business, the Chairman adjourned the meeting at 1:50 p.m.

Richard H. Bohner
Secretary

FINANCE & ADMINISTRATION**ACTION ITEMS**

1. Electrical Energy Demand Response Contract (Approval)

PJM Interconnection's (PJM) Emergency Load Response Program (ELRP) enables program participants to receive revenue for being available to reduce electricity consumption when the reliability of the electric grid is in jeopardy and voltage reductions and rolling brownouts are imminent. The Board's approval is requested for a contract with EnerNoc, Inc. to provide Curtailment Services in the PJM's Emergency Load Response Program (ELRP) on behalf of LCA. A written Request for Quotes (RFQ) was issued Feb. 22 to three curtailment service providers as recommended by our consultant, Envinity. EnerNoc's bid was the most beneficial to LCA in its terms and payment. The projected 3 year Capacity Payment to LCA is \$104,036. Energy payments are based on actual performance during an event and reimbursed at \$0.75/kWH. Called ELRP events are infrequent. See attached draft contract, PJM territory map and ELRP event history (*blue*).

2. Refinancing of Water Revenue Bond, Series of 2008 (the "2008 Bond") (Approval)

The Authority's 2008 Bond is currently outstanding at a fixed rate of 3.55% until November 1, 2016. At that time, the interest rate converts to a variable rate. In addition, also on or after November 1, 2016, PNC Bank can require the bond be "put" back to the Authority, at which time the Authority would be forced to refinance the 2008 Bond. Under the proposed arrangement, the Authority would receive a fixed rate of 2.05% from November 1, 2016 through November 1, 2019, and the put option would also be postponed until November 1, 2019. If the Authority decides to move forward with this proposal, a resolution will need to be approved. The draft resolution arrived just before mailing and needs review and revision before being forwarded to the Board, which will be done electronically. Chris Gibbons, financial advisor, will be at the meeting to review the proposal.

DISCUSSION ITEMS

1. *None.***INFORMATION ITEMS**

1. Risk Management

The Risk Management Team is hosting two safety training events in 1st Aid/CPR/AED at LCA. Our goal for 2013 is to have the entire staff trained and certified in this area. The training is provided, cost free, by the Delaware Valley Worker's Compensation Trust, with the first session scheduled for March 20. Each session will run from 8:00 AM to 3:00 PM at LCA and can accommodate 10-12 people. The second session is to be held on April 17. A third offering will be scheduled closer to this autumn. Board members are invited to attend any of these offerings, if interested. Please contact a member of the RM Team.

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

Fund	Bank	Location	Gross Amount	Date of Purchase	Date Due	Net Rate %
2010 Wtr Cons	PSDLAF Flex Pool		4,200,000.00	2/12/13	4/30/13	0.150
Cons Wtr (2)	The Bank of Holland	Holland, MI	99,000.00	2/26/13	7/27/15	0.400
LLRI CR	Sterling Savings Bank	Spokane, WA	99,000.00	2/28/13	9/29/14	0.300
WW Capac	Liberty Bank	Arkansas	245,000.00	2/19/13	2/19/14	0.260
WW Capac	Enerbank USA	Salt lake City, UT	240,000.00	3/5/13	3/5/14	0.300
LLRI CR	Synovus Bank	Columbus, Ga	208,000.00	3/14/13	3/14/16	0.500
WW Capac	Vista Bank Texas	Houston, TX	200,000.00	3/22/13	3/22/16	0.500
Basin Str	Safra National Bank of NY	New York, NY	98,000.00	3/28/13	3/3/15	0.400

Fund Descriptions for Investments:

Cons Wtr (2)	Consolidated Water 2
WW Capac	Wastewater Capacity
LLRI CR	Little Lehigh Relief Interceptor Capital Reserves
2010 Wtr Cons A	Water Construction, Series A Bonds
Basin St	Basin Street Project

WATER

ACTION ITEMS

1. LCA Facilities Emergency Power Project – Construction Phase (Approval)

The Board authorized the design phase of this project in May 2012 and the Programmable Logic Control (PLC) for staged electrical load starting at the January 2013 workshop meeting. The project will provide emergency standby power at 12 satellite facilities and the Office Operations Center. The project was advertised for bid on February 13, 2013. A mandatory pre-bid meeting was held on Monday February 25, 2013 and representatives of 16 contracting firms attended. Bids were received on March 14, 2013. Approval of the Construction Phase is requested at the Board meeting. Reference the attached memo for additional information (*gold*).

DISCUSSION ITEMS

1. *None.*

INFORMATION ITEMS

1. Phase 2 Interconnection with Allentown

Livengood Excavators has begun to address the remaining punch-list items.

2. Water Main Replacement Project – Oakland Park

Water main construction work and temporary restoration was completed on January 17, though substantial completion of the project was not reached as final paving constitutes more than 10% of the contract. Final paving, lawn and driveway restoration will be completed by May 15 and final project closeout will occur by June 30. ***No current activity***

3. Arcadia West Pumping Station Modifications

T&M continues to complete the bidding documents. They have also responded to comments received from the Department of Environmental Protection (DEP) on the application for a public water supply permit, including additional work requested at the wells and disinfection of well water in a large diameter pipe prior to the existing tank.

4. 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 Buss Acres. A Draft report was received in late December. A meeting with LCA to discuss the Draft report occurred on January 15th and the final report is anticipated by April 1st. ***No current activity***

5. Developments

Water system construction is occurring at the following developments:

- Trexler Fields, Phases 2, 3, 4 & 5 (Partial), 28 residential lots (sfa & sfd), UMT
- Valley West Estates, Phases 4, 5 & 6, 46 residential lots (sfd), UMT (*There has not been any construction activity at this development in over three years.*)

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, & residual lot for existing cemetery, LMT

Grant Street Townes, 18 sfa residential lots, 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), Water & Sewer, WeisT
North Whitehall Commercial Center (Walmart), 5 commercial lots, NWT, water & sewer
Rabenold Farms II, 288 apartment units and clubhouse, (Portion north of I-78), UMT
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 Subdivision I, 14 commercial and industrial lots, LMT
Trexler Business Center, Lot 1, 1 commercial building, LMT
Trexler Senior Living Center, 2 commercial lots, LMT (*In bankruptcy*)
Weilers Road Twins, 82 residential lots (sfa), UMT
West Hills Business Center, 8 industrial lots, WeisT
Woodmere Estates, 60 residential units (sfd), UMT

WASTEWATER

ACTION ITEMS

1. **2013 Signatory CCTV Physical Condition Assessment, Malcolm Pirnie (Approval)**

A Memo, Capital Project Authorization Amendment and Professional Services Authorization (**green**) for Malcolm Pirnie is being presented to the Board for consideration. The work is for the physical condition assessment (PCA) of 50,000 LF of pipe in the Signatory Collector Systems as part of the I & I SCARP Program and has been recommended by the Signatories' Consultant. The 50,000 LF was televised in 2012 and the database provided to Malcolm Pirnie. The work will rate, assess and recommend follow-up actions if required. PCA figures showings the findings and recommended follow-up actions will be prepared. This work will lead to the actual rehabilitation within the system and the actual removal of I and I.

2. **Residual Property Option - Wastewater Treatment Plant (Approval)**

The Authority has an option under the 23 June 2005 Pretreatment Plant Agreement (PTP Agreement) to acquire the Residual Property remaining after subdivision of the Wastewater Treatment Plant (WTP) site and the Homewood Suite hotel site within seven years of the Takeover Date, as that is defined in the agreement, which would be by 15 May 2013. The County has responded that they wish to retain a portion of this remaining land that fronts Route 100, so a subdivision with have to occur. The Staff recommends that the Board take action exercising its option to acquire the Residual Property under the PTP Agreement and authorize the Staff to take all necessary action and sign necessary documentation in this regard.

3. **West Hills Business Center - Amended Usage & Contribution Agreement (Approval)**

The financing for the Western Weisenberg Wastewater Treatment Plant (WWWTP) is scheduled for settlement with PennVEST on Wednesday, March 27th. In a recent conversation with PennVEST legal counsel, a more formal documentation of the contribution of the developer of West Hills Business Center, Hillwood, to the project costs or the deposit of the actual funds, was required by PennVEST prior to settlement. At the time of preparation of these notes, staff is still working out language with Hillwood, but a proposed amended agreement, with minimal amendments of the agreement approved previously by the Board, is expected to be presented for action.

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 has not been received to date.

A kick-off meeting with the City and LCA 537 Plan team was held in late October. The team also had a meeting with the DEP to discuss the requirements of the Study. DEP is pleased that the City and LCA are working together.

The Task Activity Report was submitted to DEP. The Report shows the anticipated costs of the study for each City Signatory and must be approved by DEP. A fifty percent reimbursement from the State is possible if the State budgets reimbursement monies (the funds have not been available for several years).

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 with Coplay-Whitehall Sewer Authority and Salisbury Townships may result in the sale and/or lease of allocation. An offer was presented to Salisbury for consideration several months ago and LCA received a counter offer from the Manager from Salisbury. A meeting was held with the Salisbury Township Manager to discuss LCA's final counter-offer. LCA is waiting for the Township's response.

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. Arguments are scheduled to take place on Wednesday May 29, 2013 with Judge Edward Reibman presiding. The Township will bear the burden of defending their decision; however LCA support may be necessary.

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 while Wal-Mart internally reevaluates the proposed store's financial viability. **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. We hope to resolve this issue by the end of December 2012. **No current activity.**

Act 537 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. If determined to be financially viable NWT would amend the Act 537 Plan. **No current activity.**

4. Arcadia West WWTP Improvements

All Contracts have been awarded and work is proceeding with shop drawing submittals and equipment manufacturing. Activity at the site is anticipated for Mid-April. Staff is working toward PennVest Settlement, currently scheduled for March 27. The total project cost estimate is \$3,502,300.

5. Wynnewood Terrace Pump Station & Force Main Replacement

Staff has reviewed the Preliminary Technical Memorandum and returned comments to our consultant Cowan Associates, Incorporated (CA). Of the pump station types evaluated a below grade self contained pump station was determined to be the best option. CA also

evaluated the existing aged force main which was constructed by the developer of different types and pressure classifications of pipe and recommended that it should be replaced to; mitigate the chanced of continued failure; increase hydraulic capacity; and with a change in location provide future ease of maintenance. The pump station design and force main evaluation was previously authorized by the Board. A Project Authorization Amendment for force main design is anticipated for action at the in April Board or May Workshop meeting.

6. **Park Pump Station Improvements**

Fuel Tank Replacement – Staff has received and is reviewing the plans for replacement of the fuel tank at the Park Pump Station. We are in the process of acquiring additional easement area from the City of Allentown (COA) for the tank. The project is anticipated to go to bid in 2013. **No current activity.**

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 xxx xxxxx and a pre-construction meeting was held on xxxxxx. We expect construction to start April. The Agreement requires substantial completion of the facility no later than 270 days from the date of the NTP.

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 75% complete, as most of it could be accomplished without draining the digesters. OMI our WTP contract operator has finally completed draining the contents of the first digester which is necessary to facilitate mixer installation. We have met with General contractor and they expect the installation of the mixers in the first digester to start in mid April. 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 latter part of the 4th quarter of 2013

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. We are awaiting PPL approval of the methodologies for verifying electrical savings. **No current activity.**

7. **Vera Cruz Area Sewer Project**

All construction for this project was completed in 2012. Staff is working with contractors, suppliers and professional services, to close out all documentation required by the funding agencies. **No current activity.**

8. **Western Lehigh Interceptor Leak**

A structural leak in the Western Lehigh Interceptor (WLI) near Trexlertown was repaired on December 18, 2012 for \$5,600 utilizing a stainless steel 24-inch diameter by 16-inch wide Rauch Quicklock repair band. The leak was classified a gusher; between 30 and 50 gallons per minute (gpm). At 50 gpm, that is 28 million gallons per year charged to LCA. At the City flows component charge rate, that is \$6,360; therefore, the return on investment for this repair is less than one year.



Demand Response Sales and Services Agreement

This Demand Response Sales and Services Agreement (this "Agreement"), effective as of _____ ("Effective Date"), the scope of which is described more fully below, is made by and between EnerNOC, Inc. ("EnerNOC"), located at 101 Federal St., Suite 1100, Boston, MA 02110 USA, and Lehigh County Authority ("Customer"), located at 1053 Spruce Street, Allentown, PA 18106. EnerNOC and Customer are defined herein as the Parties ("Parties") to this Agreement.

1. **Term.** This Agreement shall commence on the Effective Date and end on 5/31/2016 (the "Term").

2. EnerNOC Managed Services

- a. **Scope of Services.** EnerNOC agrees to manage Customer's participation in the demand response program(s), as further described in Attachment(s) A-1 attached hereto (each individually the "Program" and collectively, the "Programs"), in accordance with the rules set forth by the applicable independent system/grid operator and/or utility, which are subject to amendment by the applicable independent system/grid operator and/or utility from time to time. EnerNOC will (i) work with Customer to develop an appropriate curtailment plan for Customer's business; (ii) complete all necessary permits and associated reporting on Customer's behalf; (iii) register Customer's Accepted Capacity (as defined in Attachment(s) A-1); (iv) manage Customer's curtailable electrical capacity in the Programs and, upon notification by EnerNOC and acceptance by Customer, provide real-time support to Customer during demand response events ("Demand Response Events") via, at Customer's sole discretion, direct load control or manual implementation by Customer, as applicable; and (v) reconcile all Program payments in accordance with the rules set forth by the applicable independent system/grid operator and/or utility and as further described in Attachment(s) A-1. In addition, as necessary, EnerNOC will coordinate with Customer's host utility to capture kilowatt-hour (kWh) pulses from the Customer's primary utility meter to provide Customer near real-time, Internet-enabled power monitoring.
- b. **EnerNOC System.** EnerNOC, as it deems necessary and with the approval of Customer, may equip one or more of Customer facility address (each a "Site Address") as identified on Attachment(s) A-2 hereto with the EnerNOC system, which includes an EnerNOC Site Server ("ESS") that can, at Customer's sole discretion, enable remote generator start/stop, and/or direct load management, power metering, data collection, near real-time data communication, and Internet-based reporting and analytics. Subsequent to the date hereof, Attachment(s) A-2 may be updated in writing from time to time by the Parties to reflect additional Site Addresses.

3. Customer Support Requirements

- a. **ESS Installation.** Within fourteen (14) days of execution by Customer of this Agreement, Customer shall provide EnerNOC with reasonable access to install a cellular connectivity device that allows for Internet-based communication of Site Address' electricity consumption and Demand Response Event performance. If cellular connectivity is not feasible, Customer shall provide either a static or non-static, as applicable, Internet Protocol (IP) address and Local Area Network (LAN) access that allows for Internet-based communication of Site Address' energy consumption and Demand Response Event performance where necessary.
- b. **Acceptance Testing.** Customer agrees to collaborate with EnerNOC in testing the ESS at each Site Address where the ESS is installed in a timely manner prior to registering with the Program(s).
- c. **Event Performance.** Customer agrees to use commercially reasonable efforts to generate and/or reduce electrical demand to achieve Accepted Capacity as defined in Attachment(s) A-1 at each Site Address when notified by EnerNOC during Demand Response Events. Customer and EnerNOC understand that the curtailable electrical capacity identified in Attachment(s) A-2 does not represent Accepted Capacity and is solely the Parties' best estimate of performance and that Accepted Capacity may vary.
- d. **Nondisclosure to Third Parties.** Customer and EnerNOC acknowledge that in its relationship with the other Party, it may receive information including (but without limitation): confidential information, business strategies, financial information, information relating to the ESS and the EnerNOC System, and information contained in this Agreement, including the terms of the revenue sharing arrangement described in Attachment(s) A-1 (all collectively "Confidential Information"). Except as required by applicable law or regulation or as expressly set forth in Subsection 3(f) hereof, neither Party shall disclose any Confidential Information to any third party or allow any third party access to such Confidential Information, except to the extent required of Customer, as a public entity, because of federal freedom of information or state right-to-know legislation or any other legal proceeding or regulation.
- e. **Trade Secret Protection Obligations.** Customer shall not alter, reverse engineer, disassemble, decompile or copy the ESS or any other EnerNOC System components and shall not allow any third party to use, access, or examine the ESS or any other EnerNOC System components.
- f. **Use of Confidential Information.** Notwithstanding anything contained herein to the contrary, Customer acknowledges that EnerNOC may receive Confidential Information of Customer through data collected by the ESS and the EnerNOC System, which may be disclosed by EnerNOC (i) to the applicable independent system/grid operator and/or utility as solely necessary for the performance of this Agreement and (ii) to any subcontractors or other agents of EnerNOC.
- g. **Service Provider Limitation.** Customer agrees not to contract with any other demand response service provider for the Term of this Agreement for the Site Addresses listed on Attachment(s) A-2.

4. General Terms



- a. **Limitation on Liability.** Except for the indemnification obligations contained herein, EnerNOC's liability hereunder is limited to direct actual damages as the sole and exclusive remedy, and total damages shall not exceed \$250,000. All other remedies or damages (at law, in equity, tort, contract, or otherwise) are expressly waived, including any indirect, punitive, special, consequential, or incidental damages, lost profit, or other business interruption damages.
- b. **Indemnification.** EnerNOC agrees to defend and indemnify, at its own expense, any third party claim against Customer, its parent corporation, affiliates, directors, employees and agents that arise due to any (i) bodily injury, death or damage to tangible personal property to the extent caused by the negligent acts or omissions of EnerNOC or its employees in the performance of this Agreement and (ii) a claim that the EnerNOC System or any goods or services provided by EnerNOC hereunder (so long as the foregoing have not been altered or modified by a party other than EnerNOC) or the use thereof by Customer infringes upon any copyright, trademark, trade secret or proprietary right of any third party. EnerNOC will pay reasonable legal fees as incurred and such damages or costs as are finally awarded against Customer or agreed to in settlement for such claim provided that Customer gives EnerNOC (i) prompt written notice of any such claim or threatened claim, (ii) sole control of the defense, negotiations and settlement of such claim if such settlement would not impose an injunction or other equitable relief against the Customer and would expressly, unconditionally and irrevocably release Customer from all liabilities and obligations with respect to such claim, with prejudice, and (iii) full cooperation in any defense or settlement of the claim.
- c. **Choice of Law.** This Agreement shall be governed by and construed and enforced in accordance with the laws of the Commonwealth of Pennsylvania, without giving effect to choice of law rules.
- d. **Miscellaneous.** Customer may not assign any of its rights or delegate any of its performance obligations hereunder without the prior written consent of EnerNOC. This Agreement contains the entire agreement between Customer and EnerNOC and may only be amended in writing signed by each of the Parties. If any of its provisions shall be held invalid or unenforceable, this Agreement shall be construed as if not containing those provisions and the rights and obligations of the Parties hereto shall be construed and enforced accordingly. This Agreement shall be binding upon the Parties together with their successors and assigns.
- e. **Force Majeure.** The Parties shall be excused for any failure or delay in the performance of their obligations hereunder due to acts of God or any other legitimate cause beyond their reasonable control.
- f. **Termination.** Either Party may terminate this Agreement (i) in the event of the other Party's material breach of this Agreement; provided that the breaching Party fails to cure the specific breach within thirty (30) days following receipt of written notice from the non-breaching Party specifying the purported breach, or (ii) immediately if the Program(s) is materially altered, suspended or ended. Notwithstanding the foregoing, in the event that capacity is not available in the Program for a given Program Period (as defined in Attachment(s) A-1), EnerNOC may reduce Customer's Acceptable Capacity to zero and/or terminate this Agreement; provided, however, that EnerNOC agrees to use commercially reasonable efforts to procure such capacity for a given Program Period (as defined in Attachment(s) A-1).
- g. **Notices.** Any notices required or permitted to be given hereunder by either Party to the other shall be given in writing: (1) by personal delivery; (2) by electronic facsimile with confirmation sent by United States first class registered or certified mail, postage prepaid, return receipt requested; (3) by bonded courier or by a nationally recognized overnight delivery company; or (4) by United States first class registered or certified mail, postage prepaid, return receipt requested, in each case, addressed to the Parties as follows (or to such other addresses as the Parties may request in writing by notice given pursuant to this Section): EnerNOC, Inc., Attn: Deputy General Counsel, 101 Federal Street, Suite 1100, Boston, MA 02110; and to the Customer at Lehigh County Authority, Attn: Operations Manager/General Manager, P.O. Box 3348, 1053 Spruce Street, Allentown, PA 18106.
- h. **Insurance.** EnerNOC shall maintain

Commercial General Liability Insurance with limits of \$1,000,000 per occurrence and \$2,000,000 aggregate
Automobile Liability Insurance with limits of \$1,000,000 per occurrence combined single limit
Workers' Compensation and Employers' Liability Insurance with limits of not less than \$500,000

All insurance carriers must have an AM Best rating of A-VIII or better. Upon request of Customer, Customer shall be listed as a certificate holder and additional insured on the Commercial General Liability policy. Customer shall be notified in writing at least thirty (30) days prior to cancellation of any insurance policy.

EnerNOC, Inc.

Name: _____

Title: _____

Signature: _____

Lehigh County Authority

Name: _____

Title: _____

Signature: _____

Joseph M. McMahon III
Operations Manager



Attachment A-1 Emergency Load Response Program

1. **Program Description.** PJM Interconnection's (PJM) Emergency Load Response Program (ELRP) enables program participants to receive revenue for being available to reduce electricity consumption when the reliability of the electric grid is in jeopardy and voltage reductions and rolling brownouts are imminent.
2. **Program Rules.** The terms of this Agreement will reflect ELRP program terms and conditions which may be amended from time to time by PJM, the current terms of which are summarized below:

<i>Program Availability</i>	During the program period June 1-September 30 ("Program Period"), Customers must be able to respond during non-holiday weekdays from 12:00 p.m. to 8:00 p.m. (Eastern Prevailing Time). PJM may call events outside of the Program Period; Customer's performance during such events shall not impact Capacity Payments, but will be included in Customer's Energy Payments as defined in Section 4(b) below.
<i>Event Trigger</i>	PJM will initiate Demand Response Events in ELRP in the case of a defined system emergency.
<i>Advanced Notification</i>	Customers are expected to be able to respond to an ELRP Demand Response Event notice within 120 minutes of notification from EnerNOC.
<i>Event Frequency & Duration</i>	Maximum of ten (10) Demand Response Events in a year, with event duration ranging from a minimum of one (1) hour to a maximum of six (6) hours.
<i>Testing Requirement</i>	If no Demand Response Event occurs, PJM requires EnerNOC to hold a Test Event by September 30 of the Program Period.

3. **Paid Capacity.** "Paid Capacity" will be either (i) Accepted Capacity, if a Demand Response Event or a Test Event (collectively, a "DR Event") has not been initiated during the Program Period, or (ii) Customer's average Delivered Capacity for all DR Events initiated during the Program Period.
 - a. **Accepted Capacity.** "Accepted Capacity" shall represent the best estimate of Customer's expected curtailment based on analysis of consumption data and pre-enrollment testing. Customer agrees that the Accepted Capacity may be adjusted by EnerNOC in the future to reflect actual performance, changes in facility operations, Program rules, regulations and/or other relevant information.
 - b. **Delivered Capacity.** "Delivered Capacity" will be the calculated performance with respect to the Program baselines and as measured by the ESS following each DR Event, up to 100% of Accepted Capacity. Customer's Delivered Capacity may be adjusted by EnerNOC in the future following PJM approval of performance data from DR Events.
4. **Payments**
 - a. **Capacity Payments.** EnerNOC will pay Customer 75.00% of the established PJM Base Residual Auction ("BRA") clearing price obtained by EnerNOC, for the applicable Program Period and applicable Delivery Zone as set forth below, multiplied by either (i) the Customer's Accepted Capacity if no Demand Response Events have been initiated or (ii) the Customer's Delivered Capacity following a Demand Response Event ("Capacity Payment").

Program Period	PJM Base Residual Auction Clearing Price (\$/MW-Day)	Delivery Zone
2013 (June 1, 2013 to May 31, 2014)	\$226.15	PPL
2014 (June 1, 2014 to May 31, 2015)	\$125.47	PPL
2015 (June 1, 2015 to May 31, 2016)	\$150.00	PPL

- b. **Energy Payments.** In months when one or more Demand Response Events are called, EnerNOC will pay Customer \$0.75 per kilowatt-hour in connection with Customer responding to a Demand Response Event when notified by EnerNOC.
- c. **Underperformance.** In no event shall Customer be penalized for underperformance by being required to return money to EnerNOC. If Customer underperforms, adjustments will be made to future payments so that total payments made to Customer for the Program Period will reflect Paid Capacity for such Program Period, as follows: (a) where there is only the Test Event, Customer's Paid Capacity will reflect the annual Delivered Capacity for the Program Period; (b) where there is only one Demand Response Event, the Customer's Paid Capacity for the given Program Period will equal (Delivered Capacity) + (0.5 x (Accepted Capacity - Delivered Capacity)); and (c) where there are two or more Demand Response Events, the Customer's annual Paid Capacity will equal the average annual Delivered Capacity for the given Program Period.
- d. **Payment Timing.** EnerNOC shall make all payments associated with Customer's participation in the ELRP to Customer on a quarterly basis, and such payments shall be made within forty-five (45) days of EnerNOC's receipt of total payment from PJM.



5. Additional Terms

- a. **Curtailment Service Provider.** Customer hereby designates EnerNOC as its sole curtailment services provider for the limited purpose of participating in PJM's Emergency Load Response Program for the Site Addresses listed on Attachment A-2.



Attachment A-2

Site Name	Site Address	Estim. Capacity (kW)
Park Pump Station	1205 Park Dr. Allentown, PA 18103	162
WL #8	Macungie Rd. and E Texas Macungie, PA 18062	118
Schantz Spring Pump Station	4671 Schantz Rd. Allentown, PA 18106	100
WL 20/23/24	670 Tillage Rd. Breinigsville, PA 18031	93
WL #9	Old T Rd. Breinigsville, PA 18031	73
WL #6	Old Rt 22 Fogelsville, PA 18051	65
WL #5	Hickory Ln. Allentown, PA 18104	61
WL #12	Church Ln. Macungie, PA 18062	55
Wynnewood WWTP	Wellington Ct. Laurys Station, PA 18059	30



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

MEMORANDUM

Date: March 19, 2013

To: Authority Board

From: Jason Peters, Frank Leist

Subject: Lehigh County Authority Facilities Emergency Power
Capabilities Project- Construction Phase

MOTIONS /APPROVALS REQUESTED:

No.	Item	Amount
1	<u>Capital Project Authorization – Amendment No. 2</u> Construction Phase:	\$1,213,752
2 **	<u>Professional Services Amendment No. 1- Construction Phase – Hanover</u> <i>Engineering Associates, Inc.</i>	\$9,420
3 **	<u>Contract Awards: Construction Phase.</u> <ul style="list-style-type: none">General Construction: <i>Lisbon Buildings & Infrastructures, Inc.</i>Electrical Construction: <i>Barry J. Hoffman Co., Inc.</i>PA Costars Program Supplier: <i>Generator System Integrators, LLC.</i>	\$271,125 \$622,925 \$172,782
4	<u>Budget Amendment</u>	\$424,200

(**) Included in the Capital Project Authorization

PROJECT OVERVIEW:

The Project consists of installing emergency power generators and automatic transfer switches at seven water well/pumping stations, two waste water treatment plants, and the LCA Office Operations Center located in seven municipalities within Lehigh County and one water well/pumping station located in Moore Township, Northampton County.

Over the past two years the power grid has been impacted by severe weather events causing long term power outages resulting in the loss of service to our customers in many of our small satellite water and wastewater systems. The intent of this project is in the event of a power outage to automatically replace PPL or Met Ed power from the grid with power from an emergency

generator, thereby assuring the reliability of water and wastewater service for our customers; and allowing business to be conducted at the Office Operations Center. The generators will utilize a staged electrical load start up sequence and will be sized to operate the entire facility.

PROJECT STATUS

Previously the Board approved the Design and the Programmable Logic Control (PLC) Design / Installation Phases of the Project in May 2012 and in February 2013 respectively. Upper Milford Township required us to obtain a Special Exception from the Zoning Board for the generator to be installed in the Upper Milford Division which they granted on March 11, 2013.

The project was advertised for bid on February 13, 2013. A mandatory pre-bid meeting was held on February 25, 2013. Bids were received on March 14, 2013

THIS APPROVAL: CONSTRUCTION PHASE

BIDDING SUMMARY- CONSTRUCTION CONTRACTS

This project requires General Construction and Electrical Construction Contracts. The bidding results which reflect the Base bid with the Alternate Spill Containment Foundation are as follows:

General Construction	
Bidder	Amount
<i>Lisbon Buildings & Infrastructures, Inc</i>	<i>\$271,125.00</i>
Joyce Electrical	\$927,250.00

Electrical Construction	
Bidder	Amount
<i>Barry J. Hoffman Co., Inc.</i>	<i>\$622,925.00</i>
Thomas L. Hoffman Electrical	\$703,312.00
George J. Hayden Inc	\$798,804.00
Pagoda Electrical	\$794,100.00
J.B. Electrical Corp.	\$796,520.00
Parkside Utility Construction, LLC	\$818,639.07
Phillips Brothers Electrical Contractors, Inc.	\$827,800.00
Joyce Electrical	\$1,087,000.00

Reference checks for the low bidders, Lisbon Buildings & Infrastructures, Inc. for General Construction and Barry J. Hoffman Co., Inc. for Electrical Construction have identified no issues. In fact, Barry J. Hoffman Co. Inc. has performed well on previous LCA projects. Therefore, we recommend awarding the General Construction contract to Lisbon Buildings & Infrastructures, Inc.; and the Electrical Construction contract to Barry J. Hoffman Co. Inc., subject to the receipt of the necessary Performance Bonds, Insurance and other required documentation.

PROCUREMENT

The Project requires a total of eleven generators of various sizes and configurations.

Nine fixed generators (i.e. permanently installed, non –mobile) are included as part of the Electrical Construction Contract and will be provided by Barry J. Hoffman Co., Inc. the recommended bidder above.

Two mobile generators, one for the Office Operations Center and a second for use at the Wynnewood wastewater systems secondary pump stations and other plug-in ready facilities will be purchased by LCA directly through Pennsylvania's cooperative purchasing program, "COSTARS", which is managed by the Department of General Services Bureau of Procurement and is in compliance with all bidding laws. The mobile generators will provide flexibility in emergency situations if needed by LCA.

After negotiation the COSTARS prices are as follows:

Office Operations Center			
Company	Generator		
	Manufacturer	Size (KW)	Price
<i>Generation System Integrators, LLC</i>	<i>Kohler</i>	<i>500</i>	<i>\$125,000</i>
Winter Engine Generator Service, Inc.	Kohler	500	\$127,500
Emergency Systems	Ingersoll Rand	500	\$147,000

Wynnewood Wastewater Secondary Pump Stations			
Company	Generator		
	Manufacturer	Size (KW)	Price
<i>Generation System Integrators, LLC</i>	<i>Kohler</i>	<i>100</i>	<i>\$47,782</i>
Winter Engine Generator Service, Inc.	Kohler	100	\$57,750
Emergency Systems	Doosan	60	\$45,400

We recommend awarding the contract for the purchase of the 500 kilowatt (Kw) and 100 Kw mobile generators through the COSTARS Program to Generation System Integrators, LLC.

PROFESSIONAL SERVICES

Hanover Engineering Associates, Inc our design consultant will provide construction engineering, services for the construction phase of the project. The work will generally include:

1. Conduct pre construction conference.
2. Review contractor's construction schedule and updates for compliance with project.
3. Arrange and conduct monthly progress meetings and provide meeting minutes.
4. Review all contractor submittals to ensure that design objectives and requirements of the Contract Documents are met.

5. Review certified payrolls.
6. Conduct walkover of the project site with contractors and LCA representatives.
7. Provide LCA with recommendation on completeness of work, final acceptance and release of final payment.

FIELD INSPECTION

Jason Peters, LCA Capital Works Assistant who is in charge of this project will provide field inspection.

SCHEDULE

Assuming approval of the Construction Phase at the March 25th 2013 Board meeting, all emergency power equipment will be operational by October 4, 2013 (i.e. the substantial completion date).

FUTURE AUTHORIZATIONS

None Anticipated.

**CAPITAL PROJECT AUTHORIZATION
AMMENDMENT No. 2**

PROJECT NO.:	<u>W-12-1</u>	BUDGET FUND:	<u>Water\Capital</u>
PROJECT TITLE:	<u>Lehigh County Authority Facilities Emergency Power Capabilities Project – Construction Phase</u>	PROJECT TYPE:	
THIS AUTHORIZATION	<u>\$1,213,752</u>	<input checked="" type="checkbox"/> Construction	
TO DATE (W/ ABOVE)	<u>\$1,474,717</u>	<input type="checkbox"/> Engineering Study	
		<input type="checkbox"/> Equipment Purchase	
		<input checked="" type="checkbox"/> Amendment	

DESCRIPTION AND BENEFITS:

The Project consists of installing emergency power generators and automatic transfer switches at eleven facilities including the LCA Operations Center located within Lehigh and Northampton Counties. The intent of this project is in the event of a power loss to replace PPL or Met Ed power from the grid with power from an emergency generator.

In the event of power outages, the proposed facility improvements will increase the reliability of water and wastewater service for our customers; and will allow full utilization of the Office Operations Center.

THIS AMENDMENT –Construction Phase

Includes Staff time, Professional services, Construction contracts general and electrical, costars Procurement, miscellaneous cost, and contingencies for the construction of the aforementioned facilities

Please reference the cover Memo for additional information.

Authorization Status:

Previous Authorizations	
Design Phase (<i>exclusive of PLC Control</i>)	\$128,840
PLC Design & Installation Phase	\$132,125
REQUESTED THIS AUTHORIZATION	
Construction Phase	
Staff	\$60,000
Professional Services(1)	\$9,420
Construction Contracts	
General	\$271,125
Electrical	\$622,925
COSTARS Procurement	\$172,782
Misc	\$2,500
Contingency	\$75,000
Total This Authorization	\$1,213,752
Future Authorization	
Non Anticipated	
Total Estimated Project	\$1,474,717

REVIEW AND APPROVALS:

_____ Project Manager	_____ Date	_____ General Manager	_____ Date
_____ Capital Works Manager	_____ 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
Amendment No. 1

Professional: Hanover Engineering
Associates, Inc.
5920 Hamilton Blvd, Suite 108
Allentown, PA 18106

Date: March 19, 2013

Requested By: Jason Peters

Approvals

Department Head: _____

General Manager: _____

Water Capital - Emergency Power Capabilities Project

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

Previous Authorizations- Design Phase: \$79,840.00

This Authorization- Construction Phase: \$9,420.00

Hanover Engineering and Associates, Inc. will provide construction related services including but not limited to conducting pre-construction, progress and close out meetings, catalog cut / shop drawing review and approval, change orders, RFI response and technical assistance.

For additional information please reference the cover Memo.

Cost Estimate (not to be exceeded without further authorization): \$89,260.00

Time Table and Completion Deadline: As per agreed upon schedule

(For Authority Use Only)

Authorization Completion:

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

**CAPITAL PROJECT AUTHORIZATION
AMMENDMENT No. 2**

PROJECT NO.:	<u>W-12-1</u>	BUDGET FUND:	<u>Water\Capital</u>
PROJECT TITLE:	<u>Lehigh County Authority Facilities Emergency Power Capabilities Project – Construction Phase</u>	PROJECT TYPE:	
THIS AUTHORIZATION	<u>\$1,213,752</u>	<input checked="" type="checkbox"/>	Construction
TO DATE (W/ ABOVE)	<u>\$1,474,717</u>	<input type="checkbox"/>	Engineering Study
		<input type="checkbox"/>	Equipment Purchase
		<input checked="" type="checkbox"/>	Amendment

DESCRIPTION AND BENEFITS:

The Project consists of installing emergency power generators and automatic transfer switches at eleven facilities including the LCA Operations Center located within Lehigh and Northampton Counties. The intent of this project is in the event of a power loss to replace PPL or Met Ed power from the grid with power from an emergency generator.

In the event of power outages, the proposed facility improvements will increase the reliability of water and wastewater service for our customers; and will allow full utilization of the Office Operations Center.

THIS AMENDMENT – Construction Phase

Includes Staff time, Professional services, Construction contracts general and electrical, costars Procurement, miscellaneous cost, and contingencies for the construction of the aforementioned facilities

Please reference the cover Memo for additional information.

Authorization Status:

Previous Authorizations	
Design Phase (<i>exclusive of PLC Control</i>)	\$128,840
PLC Design & Installation Phase	\$132,125
REQUESTED THIS AUTHORIZATION	
Construction Phase	
Staff	\$60,000
Professional Services(1)	\$9,420
Construction Contracts	
General	\$271,125
Electrical	\$622,925
COSTARS Procurement	\$172,782
Misc	\$2,500
Contingency	\$75,000
Total This Authorization	\$1,213,752
Future Authorization	
Non Anticipated	
Total Estimated Project	\$1,474,717

REVIEW AND APPROVALS:

_____ Project Manager	_____ Date	_____ General Manager	_____ Date
_____ Capital Works Manager	_____ 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

MEMORANDUM

Date: March 21, 2013

To: Board of Directors & Management Staff
From: Pat Mandes / Frank Leist
Re: 2012 High Weir CCTV Physical Condition Assessment

Approvals Requested

Approvals Requested	Brief Description	Amount
Capital Project Authorization Amendment (15) Professional Services Authorization (14)	Consulting Services Malcolm Pirnie	\$57,000

Background

In 2008, the Department of Environmental Protection (DEP) required LCA and the Signatories to generate a Corrective Action Plan for the areas identified as having significant infiltration and inflow (I&I) conditions. In addition, EPA has issued a Compliance Order to the City of Allentown, LCA and all municipalities tributary to the City WWTP to eliminate all SSOs within a five year period (2014).

The LCA 2009-2017 Signatory I&I Investigation & Remediation Project Capital Plan was developed so that LCA could take the lead in working with the Signatories to address the overload and SSO issues. A Sewer Capacity Assurance & Rehabilitation Program (SCARP) Outline was drafted by Malcolm Pirnie that provides a formalized and planned method of evaluating the LCA and Signatory systems, prioritizing and conducting sewer rehabilitation by all the LCA Signatory Partners.

Project Scope

A Professional Services Agreement and Capital Project Authorization Amendment is attached in the "Not to Exceed" amount of \$57,000 for the Physical Condition Assessment (PCA) of Signatory collector pipe. The Western Lehigh SCARP Partnership I & I Consultant, Malcolm Pirnie will review the existing CCTV inspection records of 50,000 LF of pipe that is considered "high leakage pipe", access, rate, and recommend follow-up actions. PCA figures showing the findings and recommendations will be presented. The PCA will be the basis of recommended rehabilitation. It is recommended that Malcolm Pirnie provide the PCA of the Signatory pipes because of their expertise and to maintain consistency with the PCA of the WLI and consistency between the Signatories.

**CAPITAL PROJECT AUTHORIZATION
AMENDMENT NUMBER 15**

PROJECT NO.:	<u>S-08-5</u>	BUDGET FUND:	<u>WLI Sewer Capital</u>
PROJECT TITLE:	<u>Signatory I & I Investigation/Remediation Program</u>		PROJECT TYPE:
TOTAL PROJECT THIS AUTHORIZATION	Prior:	\$3,268,031	<input type="checkbox"/> Construction
	Current:	\$50,000	<input type="checkbox"/> Engineering Study
			<input type="checkbox"/> Equipment Purchase
			<input checked="" type="checkbox"/> Amendment

DESCRIPTION AND BENEFITS:

Full Project Overview:

Based on the EPA Compliance Order and the PADEP Chapter 94 requirements, LCA and the LCA Signatories are required to reduce infiltration and inflow from the system and eliminate SSOs from the LCA and Signatory sewer systems within a five year period (2014). The SCARP Program has been developed to investigate the sources of I & I and to remediate areas identified as having excessive I & I. The SCARP Program consists of engineering tasks necessary to define and quantify the problems, to evaluate methods of redress and to determine the corrective actions required to meet the regulatory requirements.

Physical Condition Assessment of CCTV (high leakage catchments)

There are 50,000 LF of Signatory collector pipes located in Upper and Lower Macungie Townships that were televised in 2012 that have been shown from previous flow monitoring and weiring to be "high leakage areas". The CCTV must be reviewed to determine the "Basis of Rehabilitation" and prioritized for rehabilitation.

The work includes reviewing, rating and assessment of the piping, recommended follow-up actions, providing PCA figures showing the findings and any recommended follow-up actions regarding cleaning and rehabilitation. The findings will be presented in a meeting. The Signatories will utilize this information to assist them in developing their rehabilitation projects.

The 2013 budget for the I & I Program includes funds for this work.

Previously Approved		This Amendment	Total Approval
Flow Monitoring Temporary	\$ 1,280,950		\$ 1,280,950
Purchase of Flow Meters (9)	\$63,000		\$63,000
Long Term Metering	\$431,081		\$431,081
Engineering Consulting	\$1,203,700	\$57,000	\$1,260,700
Staff	\$300,000		\$300,000
Contingencies	\$10,000		\$10,000
Totals	\$ 3,288,731	\$ 57,000	\$ 3,345,731

REVIEW AND APPROVALS:

<u>Pat Mandes</u>	<u>03/06/13</u>		
Project Manager	Date	General Manager	Date
 <u>Capital Works Manager</u>	 <u>Date</u>	 <u>Chairman</u>	 <u>Date</u>



Lehigh County Authority

1053 Spruce Street * P.O. Box 3348 * Allentown, PA 18106-0348
(610)398-2503 * FAX (610)398-8413

PROFESSIONAL SERVICES AUTHORIZATION

AMENDMENT NUMBER 14

Professional:

Malcolm Pirnie, Inc.
Jim Shelton
824 Market St., Suite 820
Wilmington, DE

Date: 03/6/13

Requested By: Pat Mandes

Approvals

Department Head:

General Manager:

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

Signatory Collector Systems; Physical Condition Assessment of pipe segments with high leakage.

Provide a physical condition assessment and report for 50,000 LF of Signatory collector piping from the 2012 CCTV work.

An assessment report shall include a rating of each pipe segment in accordance with industry standards and recommended follow-up activities. Work shall be accomplished in accordance with the attached scope of work and budget estimate dated January 10, 2013.

Cost Estimate (not to be exceeded without further authorization): Not to exceed \$57,000.

Time Table and Completion Deadline:

It is anticipated that this work will be completed by the end of June 2013.

(For Authority Use Only)

Authorization Completion:

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



Ms. Pat Mandes
Wastewater Services Director
Lehigh County Authority
P.O. Box 3348
Allentown, PA 18106

ARCADIS U.S., Inc.
640 Freedom Business Center
Suite 310
King of Prussia
Pennsylvania 19406
Tel 610.768.5813
Fax 610.768.5817
www.arcadis-us.com

Subject:
2012 High Weir CCTV Physical Condition Assessment

Dear Ms. Mandes:

In accordance with a request by Lehigh County Authority (LCA), Malcolm Pirnie, the Water Division of ARCADIS, is pleased to provide you with this scope and budget for a physical condition assessment (PCA) of 50,000 LF of sewer in Lower Macungie, Macungie, and Upper Macungie (all partners in the Sewer Capacity Assurance & Rehabilitation Program). These sewer segments were televised in 2012 and are located in "high weir" areas that are expected to contribute significant leakage to the sewer system. Consistent with the ongoing inspection program for the Western Lehigh Interceptor, we propose to rate, assess, and recommend follow-up actions, if required, for all of these CCTV segments.

SCOPE OF WORK

Malcolm Pirnie has been provided with a hard drive of "high weir" CCTV and PACP-certified databases for the sanitary sewers in the partner areas noted above.

Malcolm Pirnie will review the inspection records and prepare PCA figures showing the findings and any recommended follow-up actions regarding cleaning and rehabilitation. The findings will be incorporated into the findings from the Existing CCTV evaluation. Maps and tables will be prepared that include the results of both the Existing CCTV and High-Weir CCTV evaluation.

The findings will be reviewed with LCA and partner staff as part of the Existing CCTV review meetings.

We assume that the "high weir" CCTV has been provided with PACP-certified databases.

BUDGET ESTIMATE

We estimate that the cost of these services will be \$57,000. This budget includes \$5,000 related to the evaluation of the "Existing CCTV" for adjustments made to GIS, hand-coding pipe defect codes for segments without a PACP database, and

Date:
January 10, 2013

Contact:
Tony Dill

Phone:
484.688.0380

Email:
Anthony.Dill@arcadis-us.com

Our ref:
0247

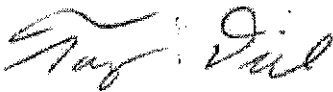
Ms. Pat Mandes
January 10, 2013

addressing mislabeled and missing videos. We propose to complete these services on a time and materials basis in accordance with the Agreement between LCA and Malcolm Pirnie, Inc., dated June 17, 1997, and the current Summary of Standard Charges for Lehigh County Authority. We will not exceed this budget without prior authorization from LCA. Payment for services will be based upon the actual labor and expenses incurred.

Please contact me with your authorization to proceed if this scope and budget are acceptable to you. If you have any questions please do not hesitate to call me at 484-688-0380 or 610-761-3253 (mobile).

Sincerely,

ARCADIS U.S., Inc.

A handwritten signature in cursive script, appearing to read "Tony Dill".

Tony Dill, PE, BCEE
Program Manager – Buried Infrastructure Team

C: Jim Shelton, ARCADIS
Tanya McCoy-Caretti, ARCADIS
Craig Murray, ARCADIS