



LEHIGH COUNTY AUTHORITY

LCA Main Office:
1053 Spruce Road
Wescosville, PA 18106
610-398-2503

Agendas & Minutes Posted:
www.lehighcountyauthority.org

Published: October 17, 2016

BOARD MEETING AGENDA – October 24, 2016

1. Call to Order
 - *Public Participation Sign-In Request*
2. Review of Agenda / Executive Sessions
3. Approval of Minutes
 - *October 10, 2016 Board meeting minutes*
4. Public Comments
5. Action / Discussion Items:

FINANCE AND ADMINISTRATION

- *2017 Budget – Approval Requested – Executive Summary Attached (green)*
- *2017 Goals & Strategic Plan – Preliminary Discussion (yellow)*
- *Resolution #10-2016-2 – Designating persons to Execute transactions and perform other functions on behalf of the Authority with M&T Bank (blue)*
- *Resolution #10-2016-3 - Authorizing the Submission of a Financial Assistance Application to the Commonwealth Financing Authority for a Grant for the Crestwood Alternate Water Supply Project (tan)*
- *Resolution #10-2016-4 Authorizing the Submission of a Financial Assistance Application to the Commonwealth Financing Authority for a Grant for the Heidelberg Heights Wastewater Tank Re-Coating project (purple)*

WATER

WASTEWATER

- *Park Pump Station Upgrade Project (grey)*

6. Monthly Project Updates / Information Items (1st Board meeting per month)
7. Monthly Financial Review (2nd Board meeting per month) – **September 2016 will be sent out separately**
8. Monthly System Operations Overview (2nd Board meeting per month) – **September 2016 report attached**
9. Staff Comments
10. Solicitor's Comments
11. Public Comments / Other Comments
12. Executive Sessions
13. Adjournment

UPCOMING BOARD MEETINGS

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

October 31, 2016	Special meeting to be held only if needed to complete 2017 budget approval process
November 14, 2016	
November 28, 2016	
December 12, 2016	

PUBLIC PARTICIPATION POLICY

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

REGULAR MEETING MINUTES
October 10, 2016

The Regular Meeting of the Lehigh County Authority was called to order at 6:34 p.m. on Monday, October 10, 2016, Chairman Brian Nagle presiding. Other Members present at the commencement of the meeting were: Linda Rosenfeld, Tom Muller, Norma Cusick, and Scott Bieber. Authority Staff present were Liesel Gross, Ed Klein, Frank Leist, Brad Landon, John Parsons, Nathan Roush, Phil DePoe and Lisa Miller.

REVIEW OF AGENDA

Liesel Gross stated that the Engineering Study under Wastewater is removed from the agenda and there are three items for Executive Session regarding potential litigation.

Deana Zosky arrived at 6:35 p.m.

APPROVAL OF MINUTES

September 26, 2016 Regular Meeting Minutes

Scott Bieber said he would like to see the amount of costs, \$42,000.00 in parenthesis, added to the motion regarding variance from the Authority Contribution Policy for the Upper Milford-Central Lehigh Division Interconnection.

On a motion by Norma Cusick, seconded by Tom Muller, the Board approved the Minutes of the September 12, 2016 meeting as amended (6-0).

PUBLIC COMMENTS

None.

ACTION AND DISCUSSION ITEMS

Kevin Baker arrived at 6:37 p.m.

2017 Preliminary Budget

Liesel Gross provided the Board with a memo outlining the budget format and remaining Budget approval process. The Budget must be approved by November 1st. Ed Klein presented a PowerPoint presentation of the 2017 Preliminary Budget and reviewed the highlights. Deana Zosky asked for an explanation of the rate structure as well as what rates LCA has the authority to change or what control LCA has over revenue. Liesel Gross provided a handout regarding preliminary 2017 water rates for the average residential customer and explained how the annual rate is calculated using the index change and margin change for the Allentown Division, and provided an explanation of preliminary rates for the Suburban Division. She explained that the Allentown Division rates are set by the lease agreement, and municipal bulk rates for water and sewer are also dictated by formulas included in the inter-municipal agreements. The Authority Board has the full authority only to set Suburban Division water and sewer rates to direct customers. Ms. Zosky questioned the operating revenue growth percentage. Ms. Gross explained that the revenue growth percentage rate is a combination of both rate increases and anticipated volume growth.

John Parsons commented on the increase of operating expenses explaining that an increase is needed to improve the efficiency of maintenance operations in the Suburban Division, which includes implementing new programs like contracting out valve and hydrant maintenance and development of a plan for hydrant flushing. Additional staff will also be needed. The Authority will continue to work towards a sustainable preventative maintenance program which could initially increase expenses but will level out as the program progresses. Ms. Gross said that part of the Asset Management program is to align the preventative maintenance program between the City Division and the Suburban Division.

Discussion continued on cash/income and borrowing trends.

Liesel Gross asked that any comments or concerns be forwarded to the Staff so they can be addressed prior to the meeting on October 24, 2016.

2017 Western Lehigh Sewer Rates

Pat Mandes gave an overview of the 2017 report on Wastewater User Charges. The user rates are similar for the proposed 2017 budget with an increase of .3% from the 2016 rates for a typical residential customer. The flow rates however, have decreased. Pat Mandes explained that it's a result of less pay-as-you-go capital costs factored in to the flow rate formula in 2017 as opposed to 2016. Chairman Nagle asked the Board to provide any questions or comments to Authority Staff.

2017 Minimum Municipal Obligation (MMO) for LCA Pension Plan

Ed Klein presented the 2017 Minimum Municipal Obligation (MMO) memorandum and worksheet for the Authority's Pension Plan to the Board. There were no comments or questions.

Resolution #10-2016-1 Authorizing Management Staff to Institute Certain Employee Policies

Liesel Gross presented the new draft of the Resolution as requested by the Board at the previous meeting. The changes were made to paragraph 1 which included changing the word *delegates* to *assigns* and adding that procedures, policies and practices would be drafted by the Human Resources Manager, reviewed for financial impact by the Chief Financial Officer, and the Board notified of any issues or impacts of significance at the next available Board meeting through normal reporting procedures.

On a motion by Linda Rosenfeld, seconded by Norma Cusick, the Board approved Resolution #10-2016-1 (7-0).

PROJECT UPDATES/INFORMATION ITEMS

Liesel Gross brought to the attention of the Board items listed in the report for upcoming meetings. She noted that the 2017 Budget and also the Park Pump Station Upgrade project are on the October 24, 2016 Board meeting agenda.

STAFF COMMENTS

None.

SOLICITOR'S COMMENTS

None.

PUBLIC COMMENTS / OTHER COMMENTS

None.

EXECUTIVE SESSION

Chairman Nagle called an Executive Session at 8:04 p.m. to discuss potential litigation.

The Executive Session ended at 8:43 p.m.

ADJOURNMENT

There being no further business, the Chairman adjourned the meeting at 8:43 p.m.

Norma A. Cusick
Assistant Secretary



LEHIGH COUNTY AUTHORITY

1053 SPRUCE ROAD * P.O. BOX 3348 * ALLENTOWN, PA 18106-0348
610-398-2503 * FAX 610-398-8413 * www.lehighcountyauthority.org
email: service@lehighcountyauthority.org

2017 BUDGET – EXECUTIVE SUMMARY

Submitted by: Liesel M. Gross, Chief Executive Officer

October 17, 2016

In many ways, 2016 was a year of transition for Lehigh County Authority. As the organization achieved the milestone of its 50th anniversary, LCA began a journey of transformation involving developing a new executive leadership team, expansion of its Board of Directors, and a heightened focus on strategies to improve in the following areas:

- Financial Health
- Asset Management
- Environmental / Regional Leadership
- Organizational Development

A core component of the transition strategy was to develop a deeper understanding of LCA's needs in these critical areas, and begin formulating plans and programs to ensure the long-term sustainability of our organization. Issues related to financial, operational, environmental and workforce resiliency were explored throughout the year, and the journey continues.

In developing the 2017 Budget, LCA staff considered a variety of plans and programs to include, and in many ways started with a "fresh sheet of paper" as we considered priorities for the year ahead. The budget as presented includes the components that rose to the top of the priority list in each of the critical areas listed above.

Financial Health

The 2017 Budget was developed with a number of key financial goals in mind to support the organization's operational and capital program needs. The goals fit within two overarching categories:

Obtain Positive Cash Flow – As a public water utility, following best practices in financial management supported by the American Water Works Association, LCA focuses its budget on generating positive cash flow, and evaluating revenue requirements based on the cash needs of the organization in the year ahead. Components of this evaluation included adequacy of revenues, cost control, debt service coverage requirements, reserve requirements and capital program funding sources. Several revenue categories include items that LCA does not directly control including water and sewer rates in the Allentown Division (controlled by the lease agreement with the City of Allentown) and sewer rates to the municipalities we serve (controlled by the sewer signatory agreements in place for many decades). In this setting, obtaining positive cash flow was achieved in the 2017 Budget via rates reflecting the terms of those agreements, plus a 3% rate increase in water rates in the Suburban Division, and an overall prioritization approach to ensure the most important operational and capital programs are achieved.

Control Borrowing Needs – In an environment of capital intensive system improvements that will be required over the next decade or longer, and an existing debt load of nearly \$350 million, LCA's staff and Board have been discussing ways to supplement project reserves and buffer future borrowing needs.

Every drop matters. Every customer counts.

This is addressed within the 2017 Budget through the contribution of operating and non-operating revenues to pay for approximately 41% of the total capital budget of \$24.7 million. Still, the budget includes about \$17 million of new borrowing needed to cover projects planned for 2017 and beyond.

Asset Management

Throughout 2016, LCA staff and Board have discussed a new approach to managing our water and sewer system assets. The Asset Management Program, while still under development, includes a systematic approach to evaluating the remaining useful life of existing assets, and the risks associated with failure of each asset. In addition, the program recognizes the importance of preventive maintenance in ensuring the systems are well cared for, resulting in a cost effective way to extend life of the asset in the years ahead. A facility condition assessment was conducted on 25 critical facilities in the Suburban Division in 2016, along with concentrated efforts to gather and organize asset data for entry into a computerized maintenance management system (CMMS).

Following on these efforts, the 2017 Budget includes several components which encompass the next steps in formalizing the program:

Capital Plan – Several new projects have been included in LCA’s five-year capital plan that have an asset management category assigned to them. In 2017, we will address the most critical facilities that require upgrades and rehabilitation as identified in the facility condition assessment.

Preventive Maintenance – Embedded in the Allentown water / sewer system lease arrangement are operating standards that LCA must follow, which make up the preventive maintenance program for those systems. In 2017, we will begin migrating components of that program to the Suburban Division as well, so that we have a more standardized approach to maintaining our critical infrastructure, and ways to track success of the program. Included in the 2017 budget are additional employees and outside maintenance contracts that have been identified as required in order to achieve this program goal.

CityWorks Implementation – In 2016, LCA completed an upgrade and expansion of its CMMS to the new CityWorks platform. Data on the Allentown Division assets have been fully codified within this system. In 2017, funds are included in the proposed budget to complete this process for the Suburban Division, again furthering the organization’s goal of standardizing critical processes across the organization.

Environmental / Regional Leadership

Most of LCA’s work in the area of Environmental & Regional Leadership has been focused on the US EPA Administrative Order (AO) to eliminate sanitary sewer overflows (SSOs), which applies to LCA, the City of Allentown and 12 other municipalities that are served by the regional sewer system in Lehigh County. LCA has sought to provide leadership in facilitating a planning process to ensure all entities are working together on a solution to this complex problem. All parties to the AO are required to submit a capital improvements plan to EPA by December 31, 2017 detailing the work that will be completed, and associated funding mechanisms, to achieve the AO goal of eliminating SSOs. In 2016, significant progress has been made, and the 2017 Budget includes the following items that build upon past achievements in this area:

Park Pump Station – Several projects will be initiated in 2017 to address the needs of the Park Pump Station, a facility constructed in the 1980s to serve an integral role in managing both dry-day and wet-weather flows from Western Lehigh County to the City of Allentown wastewater treatment plant. Work on this facility will include significant refurbishments to the pump station, evaluation and refurbishment

of the force main that runs from the pump station in to Allentown, and an extension of the force main about 2,000 feet further into the City so that it can connect to new facilities to be constructed at the plant.

Flow Meter Improvements – LCA will facilitate efforts in 2017 to evaluate and improve metering systems used by all municipal signatories to measure flows into the sewer system, thereby enhancing billing accuracy and providing useful data to all parties about their contribution of both dry-day and wet-weather flows to the system.

City System Improvements – The City of Allentown continues to hold responsibility for determining its response to the AO, and paying for any improvements through its own funding mechanisms. LCA is tasked, through the water / sewer lease agreement, with implementing the programs under the City's direction. In 2016, the City borrowed \$2.5 million to begin working on the first phase of improvements, which will include design of a 4 million gallon flow equalization basin at the wastewater treatment plant to provide for enhanced wet-weather flow management. LCA's 2017 Budget includes expenses to implement these and other City projects, with direct reimbursement to be received from the City.

AO Plan Development – The most critical AO component for 2017 is the development of a comprehensive capital improvements plan to be submitted to US EPA by December 31st. The plan LCA seeks to develop will be fully integrated and will include details of the work to be completed by all the municipalities names in the AO who are partnering with LCA on this submission. LCA staff will facilitate this effort, which will include a public information campaign to help each municipality discuss the impacts of this program on the communities they serve.

Organizational Development

For the past decade or so, LCA has been discussing ways to prepare in advance of a wave of employee retirements that were expected to occur. In 2016, managers and employees began an open conversation about how to predict and plan for retirements that will occur in the next three years. As a result of this conversation, more information is known today about employees' actual retirement plans than ever before. Therefore, the 2017 Budget includes funding for targeted programs to address the workforce needs within the next three years.

Staff Additions & Upgrades – Three positions will be added, and four positions upgraded in 2017 to provide for knowledge transfer and skill development in advance of the retirement of several seasoned employees and managers. The goal of this effort is to ensure the knowledge stays with LCA, and that employees are prepared to take on additional responsibilities, without backfilling certain positions, when retirements occur.

Education & Training – The 2017 Budget for staff education and training includes funding for two new targeted programs. First is a wastewater training focus, to build a curriculum that managers can use to develop new employees entering our wastewater operations. Secondly, a leadership development program will be initiated to provide opportunities for future leaders of our organization to gain practical experience in leading teams, analyzing problems and addressing them with creativity and authority.

Information Technology / Automation – Information technology (IT) is a critical component of LCA's efforts to capture employee knowledge before retirements occur. With some turnover in management staff anticipated at the end of 2016, a minor reorganization is planned in 2017 to provide a higher level of visibility and leadership to the organization's IT program.

2017 BUDGET RESULTS

The sections above describe the plans, programs and priorities that were discussed and included in the development of the 2017 Budget. LCA staff believe it is important for its employees, Board of Directors and the public to understand what we hope to accomplish with the funding being sought in this budget presentation.

However, we also recognize that the budget is a financial statement, and so some discussion of anticipated financial results is required. Based on the Financial Health goals and priorities discussed on page 1, the summary below shows that the 2017 Budget is presented with positive cash flows, meeting debt service requirements, and providing alternative funding for capital improvements that limit the borrowing required to pay for these investments.

Budget Overview	Suburban	City	Total
Operating & Other Revenue	\$29,699,000	\$33,180,000	\$62,879,000
Operating Expenses (net of depreciation)	\$20,497,000	\$16,862,000	\$37,359,000
Revenues Available for Debt Service	\$ 9,202,000	\$16,318,000	\$25,520,000
Debt Service	\$ 5,161,000	\$13 047,000	\$18,208,000
Debt Service Coverage	1.78	1.25	1.40
 Capital Budget Overview	 Suburban	 City	 Total
Capital Expenses	\$14,060,000	\$10,671,000	\$24,731,000
Funding from Operating & Other Revenue	\$ 4,035,000	\$ 5,994,000	\$10,029,000
Funding from Existing Project Reserves	\$ 2,529,000	\$ 4,677,000	\$ 7,206,000
Funding from New Borrowing	\$ 7,496,000	\$ 0	\$ 7,496,000
Year-End Project Reserve Balance	\$ 9,279,000	\$ 2,437,000	\$11,716,000
 Total Cash Flow	 Suburban	 City	 Total
Beginning Operations Cash Balance (2016 forecast)	\$18,996,000	\$ 4,402,000	\$23,398,000
2017 Surplus	\$ 2,054,000	\$ 2,202,000	\$ 4,256,000
Provided From (To) Capital	\$ (2,048,000)	\$ (2,000,000)	\$ (4,048,000)
Project Reserve Balance	\$ 9,279,000	\$ 2,437,000	\$11,716,000
Other Reserves	\$ 0	\$31,988,000	\$31,988,000
Ending Total Cash Balance	\$28,281,000	\$39,029,000	\$67,310,000

The year ahead is forecasted to bring significant challenges as LCA continues on the transitional journey it began in 2016. The highlights described in this executive summary illustrate the organization's commitment to our community to offer a thoughtful and thorough approach to evaluating the challenges of a changing landscape in which financial health, system sustainability, environmental protection and organizational excellence are not guaranteed. The 2017 Budget is presented as a signal to our Board, employees and the communities we serve that the organization is committed to providing high-quality, affordable and reliable water and wastewater services that will meet the needs and expectation of existing and future customers. We will address the challenges we encounter along the way in a fiscally responsible, thoughtful approach.



1053 SPRUCE ROAD * P.O. BOX 3348 * ALLENTOWN, PA 18106-0348
610-398-2503 * FAX 610-398-8413 * www.lehighcountyauthority.org
email: service@lehighcountyauthority.org

MEMORANDUM

TO: LCA Board of Directors & Executive Staff
FROM: Liesel Gross
DATE: October 17, 2016
RE: Establishing 2017 Goals & Strategic Plan

Since the beginning of the year, Lehigh County Authority staff members have presented changes in the way we develop, discuss and track progress on strategic organizational goals. For 2016, we have presented four high-level goals. They are:

- Goal # 1 – Financial Health**
- Goal # 2 – Asset Management**
- Goal # 3 – Environmental / Regional Leadership**
- Goal # 4 – Organizational Development**

For your reference, the detailed goal descriptions are attached, along with a copy of our strategic plan statement, which was adopted by the Board in 2015.

While we still have two more months to go in 2016, it is clear we have made tremendous progress on all of our goals. Many of LCA's strategic goals for 2016 included a forward-looking component to ensure that we would make special effort to convert the "learning and investigation" phase of our work into actual plans and budgets for 2017 and beyond.

This has occurred in all areas, and the proposed 2017 budget includes many items that were derived from our work on these strategic goals. Through a series of employee meetings conducted in October to present the preliminary budget throughout the organization, I have sent a strong message to all employees that we need to be ready to "hit the ground running" with the initiatives that have been included in the 2017 budget related to staffing, preventive maintenance, administrative order work, asset management, and more.

It is noteworthy that we have spent considerable time during Board meetings in 2016 discussing potential shifts in LCA's philosophies with regards to how we invest in our systems, the way we view financial performance, and the impact of these decisions on current and future generations. It is clear that this requires additional discussion as we develop our long-term goals and key performance indicators to align with our vision, mission and values.

While the Board may not wish to be involved in developing detailed goals and tactics that staff will implement in 2017, we believe it would be a worthwhile to engage the Board in discussion of our overall organizational philosophies and strategic objectives for the year(s) ahead. At our October 24th meeting, I would appreciate hearing your thoughts on whether and how you might like to be involved in a facilitated strategy discussion.

Every drop matters. Every customer counts.

2016 Organizational Goal # 1 – Financial Health

LCA Strategic Plan Components:

1. **LCA Mission:** We will deliver Exceptional Value to our customers through our high-quality, affordable and reliable water and wastewater services.
2. **Goal Category – Operations & Financial Management:** Expert system operations and professional financial management.
3. **Goal Category – Organizational Synergy:** Create a dynamic and unified organizational culture that drives performance and teamwork.

2016 Vision / Goal(s):

- Collaborate across the organization to create a shared understanding of the value proposition LCA offers to its current and future customers, including learning where opportunities exist to enhance revenue and reduce reliance on debt.
- Create short- and long-term financial forecasts for all operating divisions.
- Develop operational and financial KPIs that are predictive of future performance.
- Simplify and standardize financial reporting for more regular staff and Board review.
- We know what the next steps are to advance our financial goals.

Critical Milestones:

1 st Quarter 2016	<ul style="list-style-type: none">• Conduct discussions and training with LCA leadership about current state of Authority finances.• Develop revenue models for discussion with LCA staff and Board that address long-term need for adequate revenue to address capital investment needs of the organization. (<i>Board and staff acceptance of a targeted revenue model is desired to build upon in future milestones.</i>)• Begin routine monthly financial reporting to LCA staff and Board.
2 nd Quarter 2016	<ul style="list-style-type: none">• Develop short- and long-term financial forecasts for Suburban Division, matching time horizon of Allentown Division forecasts (17 years).• Conduct rate studies for the Suburban Division systems to develop strategies to implement accepted revenue model.• Develop / discuss alternative financing strategies to address primary financial challenges facing the Allentown Division, and to address the Administrative Order project financing needs.
3 rd Quarter 2016	<ul style="list-style-type: none">• Complete 2017-2026 Capital Planning process, using accepted revenue model for justification of future capital investments.• Develop 2017 budget process and timeline to include adequate time for public and Board review and discussion.
4 th Quarter 2016	<ul style="list-style-type: none">• Develop 2017 plans to incorporate Asset Management deliverables (facility condition assessments and asset management plans) into calculations of future financing needs and revenue projections.• Establish Key Performance Indicators (KPIs) to measure and predict LCA financial, operational and regulatory performance over time.

2016 Organizational Goal # 2 – Asset Management

LCA Strategic Plan Components:

1. **Goal Category – Capital Asset Management:** Manage our assets to maintain an acceptable level of service and plan for the future, by prioritizing projects and evaluating ways to enhance and perpetuate performance and quality at the lowest life cycle cost.
2. **Goal Category – Organizational Synergy:** Create a dynamic and unified organizational culture that drives performance and teamwork.

2016 Vision / Goal(s):

- Create an organizational vision to guide the future of our asset management program, including how we prioritize work and the desired level of service we seek to provide.
- Develop an inventory of our physical assets, including an assessment of their condition and probability and consequence of failure, in order to assign criticality and establish a risk ranking system. (*Suburban Division focus*)
- Use the risk ranking system to prioritize the critical maintenance, rehabilitation and/or replacement activities (across Capital Works and Operations) required to maintain our desired level of service at the lowest life-cycle cost.
- Collaborate with others to develop shared understanding of the level of funding available for asset management activities, in order to strategize capital renewal/replacement improvements.
- Leverage successful programs already in place in the Allentown Division to build similar successes in the Suburban Division and generate an LCA standard for asset management.
- Define our next steps.

Critical Milestones:

1 st Quarter 2016	<ul style="list-style-type: none">• Internal asset management team assembled to develop program goals and definitions.• Review Allentown Division (AD) use of CityWorks and lease Operating Standards; develop similar goals/concepts for Suburban Division.
2 nd Quarter 2016	<ul style="list-style-type: none">• Suburban Division (SD) facility mechanical inventory completed.• Collaborate with finance to develop timelines for capital plan / budget preparation, to incorporate funding availability into asset management planning / prioritization.• Initiate asset management programming for SD linear assets (water mains) to parallel similar work already in place in AD.
3 rd Quarter 2016	<ul style="list-style-type: none">• SD facility condition assessment project completed. Incorporate results from mechanical inventory.• Initial development of 10-year Capital Plan utilizing preliminary recommendations from condition assessment.
4 th Quarter 2016	<ul style="list-style-type: none">• Populate SD data into CityWorks, including facility data, operating standards and weekly preventive maintenance tasks to parallel similar features already in place in AD.• Develop asset management program goals for 2017, including review of SOPs and development of LCA standard for risk-based project prioritization.

2016 Organizational Goal # 3 – Environmental / Regional Leadership

LCA Strategic Plan Components:

1. **Goal Category – Environmental & Regulatory Compliance:** Serve as a steward of our water resources, protect the public's health and promote resource conservation and protection.
2. **Goal Category – Community & Customer Relations:** Actively engage the community and our customers in our plans and programs.

2016 Vision / Goal(s):

- Collaborate with the City of Allentown and all municipal signatories to track completed and planned system improvements required to address the US EPA Administrative Order (AO) to eliminate sewer system overflows.
- Lead collaborative efforts with the Western Lehigh Sewerage Partners (WLSP) to develop and present a Sewer Capacity Assurance and Rehabilitation Program (SCARP) Implementation Plan.
- Collaborate with WLSP municipal leaders to develop a Memorandum of Cooperation to formalize our shared responsibility for implementing and paying for the capital improvement plan (CIP) outlined in the SCARP Implementation Plan.
- Develop a shared understanding with the City of Allentown and the City municipal signatories about the synergies between their CIP and the WLSP plans, and the associated impact to costs and cost allocation.
- Collaborate with Allentown and the City signatory municipal leaders to develop a Memorandum of Cooperation to formalize our shared responsibility for implementing and paying for capital improvements associated with AO compliance via the City's CIP.
- Develop timeline of next steps that are required to achieve compliance with the AO.

Critical Milestones:

1 st Quarter 2016	<ul style="list-style-type: none">• Establish calendar of meetings to collaborate with the City of Allentown, City signatories and WLSP on AO corrective action planning work.• Develop communications strategy to ensure public has access to information regarding past and future AO efforts and decisions.
2 nd Quarter 2016	<ul style="list-style-type: none">• Finalize planning-level cost estimates for each WLSP for the preferred alternative, inclusive of LCA portion of City CIP costs. Discuss alternatives for cost allocation, cash-flow planning and financing.• Facilitate meetings with City representatives to develop agreement on cost allocation to the City signatories for City CIP.
3 rd Quarter 2016	<ul style="list-style-type: none">• Discuss project implementation options with WLSP to define how projects will be coordinated, financed and costs allocated. Provide support as needed for individual WLSP bond and rate evaluations.• Support the City in their presentation of cost allocation for the City CIP to the City signatories.
4 th Quarter 2016	<ul style="list-style-type: none">• Develop draft of Memorandum of Cooperation among the WLSP. Collaborate with the City on the development of a draft of Memorandum of Cooperation among the Allentown signatories.• Develop timeline of next steps to ensure delivery of all detailed corrective action plans to EPA by December 31, 2017.

2016 Organizational Goal # 4 – Organizational Development

LCA Strategic Plan Components:

1. **Goal Category – Organizational Synergy:** Create a dynamic and unified organizational culture that drives performance and teamwork.
2. **Goal Category – Workforce Sustainability:** Create a supportive and empowering work environment where employees actively seek to contribute toward LCA's mission.

2016 Vision / Goal(s):

- We have established organizational goals for 2016 and methods to communicate / engage with all employees about our progress.
- We know what the next wave of retirements looks like and have plans to address the gaps they will create.
- Our managers and supervisors have resources, training and tools needed to be effective in their people-management roles.
- We have successful union contract negotiations that result in enhanced collaboration and teamwork across all of LCA.
- We know what the next steps are to advance our organizational development program goals.

Critical Milestones:

1 st Quarter 2016	<ul style="list-style-type: none">• Organizational goals defined. Calendar established for employee / manager / Board review of goals & progress.• Focused discussion with managers: Development needs & training required.
2 nd Quarter 2016	<ul style="list-style-type: none">• Internal contract negotiation team & goals established. Data gathered to support salary/benefits discussions during contract negotiations.• Focused discussion with managers: Identifying & planning for retirements.• Management development/training program kicks off.
3 rd Quarter 2016	<ul style="list-style-type: none">• Any special topics identified as requiring extended discussion/research are discussed in advance of union contract negotiations.• Retirements in 1-3 year timeframe are identified.
4 th Quarter 2016	<ul style="list-style-type: none">• Union contracts negotiated and approved.• Future retirement gaps outlined with knowledge gaps identified.• Focused discussion with managers: What's next?

RESOLUTION No. 10-2016-2

(Duly adopted 24 October 2016)

A RESOLUTION DESIGNATING PERSONS TO EXECUTE TRANSACTIONS AND PERFORM OTHER FUNCTIONS ON BEHALF OF THE AUTHORITY WITH M&T BANK

WHEREAS, Lehigh County Authority (hereinafter the "Authority") has established accounts with M&T Bank (the "Bank"); and

WHEREAS, the Bank desires to establish the designated person to perform functions related to these accounts and requires a specific form of resolution such as follows;

NOW THEREFORE, it shall be resolved that:



CLIENT RESOLUTION

(CERTIFICATE OF TREASURY MANAGEMENT and OTHER RESOLUTION)

Name of Client: **Lehigh County Water & Sewer** ("Client")

I, Norma Cusick, Assistant Secretary, the duly appointed officer, of Client, being duly authorized to certify the approved actions of the above-named Client, a governmental entity or agency, organized or operating under the laws of the Commonwealth of Pennsylvania, hereby certify that at a meeting of the Client's board of directors (the "**Board**") duly called and held, the following resolutions were duly adopted; are in full force and effect and have not been rescinded, revoked or modified in any way; and that none of the resolutions nor any action taken or to be taken pursuant to any of the resolutions violates, or will result in any violation of, any statute, regulation or other law applicable to Client or the governing documents applicable to Client, or any instrument, agreement or document to which Client is a party, or by which Client or any of its assets is bound.

1. RESOLVED: That each person designated below ("**Client's TM Signer(s)**") (i) has been duly elected or appointed to and qualified for any title/position noted below and that, on the date of this Client Resolution, such person holds such title/position (ii) each signature appearing below is a true and correct specimen of the signature of the person whose signature it purports to be and (iii) the contact information appearing below is true and correct for such person.

Name of TM Signers	Title/ Position	Specimen Signature	Contact Information
Liesel M. Gross	Chief Executive Officer		Office No.: 610-398-2503; Facsimile: 610-398-8413 E-mail: lieselgross@lehighcountyauthority.org
Edward C. Klein	Chief Financial Officer		Office No.: 610-398-2503; Facsimile: 610-398-8413 E-mail: edwardklein@lehighcountyauthority.org
Linda M. Eberhardt	Accounting Supervisor		Office No.: 610-398-2503; Facsimile: 610-398-8413 E-mail: lindaeberhardt@lehighcountyauthority.org
John W. Parsons	Chief Operating Officer		Office No.: 610-398-2503; Facsimile: 610-398-8413 E-mail: johnparsons@lehighcountyauthority.org
Charles E. Volk	Chief Capital Works Officer (After 12/30/16)		Office No.: 610-398-2503; Facsimile: 610-398-8413 E-mail: charlesvolk@lehighcountyauthority.org

M&T Bank Internal Use Alt/Neg ☐

ENTER PROFILE NUMBER

0444165896



2. RESOLVED: That, from time to time, Client may obtain any Treasury Management services ("**Services**") from M&T Bank with respect to any of Client's deposit accounts at M&T Bank or other accounts at M&T Bank (including, without limitation, loan and line of credit accounts) over which Client has authority (together, the "**Accounts**");
3. RESOLVED: That, except as may be elected by Client in Section 6 below, any one of Client's TM Signers may enter into and deliver to M&T Bank, on behalf of Client for its own affairs or with respect to the affairs of any entity on behalf of which Client is authorized to act, any agreements (including, but not limited to, the M&T Master Treasury Management Services Agreement), instruments, and other documents which relate to the Services provided or to be provided by M&T Bank with respect to any Accounts;
4. RESOLVED: That, except as may be elected by Client in Section 6 below:
 - (a) any one of Client's TM Signers may enter into and deliver to M&T Bank, on behalf of Client for its own affairs or with respect to the affairs of any entity on behalf of which Client is authorized to act, any agreements which relate to the Credit Manager Service provided or to be provided by M&T Bank with respect to any Account, including the Credit Manager Product Terms & Conditions ("Credit Manager Agreement"); and
 - (b) any one of Client's TM Signers is authorized to: (i) give notices, certifications, directions, and instructions under the Credit Manager Agreement, (ii) execute or otherwise approve any related documents for the Credit Manager Service with respect to any Account, and (iii) delegate authority to any other person or entity, including any user of WebInfoPLU\$ and any other Authorized Representative (as defined in the M&T Master Treasury Management Services Agreement), to act on Client's behalf in any way with respect to the Credit Manager Service with respect to any Account, which persons and entities may or may not be signatories on one or more of the Accounts and may or may not have the ability to delegate authority to others. It is understood that such authority may include, at the discretion of M&T Bank, the authority to access certain loan and line of credit accounts and related information, and to initiate funding draws, direct funds transfers and make payments with respect to such Accounts. M&T Bank is not obligated to inquire into the circumstances or propriety of any such action, notice, certification, direction, instruction or delegation;
5. RESOLVED: That, except as may be elected by Client in Section 6 below, any one of Client's TM Signers is authorized to: (a) give notices, certifications, directions, and instructions under any such agreement, instrument, or document, (b) execute or otherwise approve any related documents, and (c) delegate authority to any other person or entity to act on Client's behalf in any way with respect to any Services or Accounts, which persons and entities may or may not be signatories on one or more of the Accounts and may or may not have the ability to delegate authority to others. M&T Bank is not obligated to inquire into the circumstances or propriety of any such, notice, certification, direction, instruction or delegation;
6. RESOLVED: That, if elected by Client below:

OPTIONAL ELECTION FOR MULTIPLE TM SIGNERS. *(This option is only for Clients who require two or more signers on each legal agreement and Client Election Form.)*

PLEASE CHECK THE BOX BELOW AND INDICATE THE APPROPRIATE NUMBER IF CLIENT WISHES TO REQUIRE MULTIPLE TM SIGNERS TO (1) EXECUTE LEGAL AGREEMENTS AND (2) SIGN CLIENT ELECTION FORMS:

- ☒ Notwithstanding the above, at least two of Client's TM Signers listed above must execute each legal agreement and Client Election Form governing the Services and Accounts.

7. RESOLVED: That, notwithstanding the terms of any prior resolutions adopted by Client, M&T Bank be and hereby is authorized to rely on this Client Resolution and the resolutions herein and the actual or purported signatures of any of Client's TM Signers until M&T Bank's relationship manager for the Accounts (and, if Section 7 above is checked, M&T's FX Group) has actually received and had a reasonable time to act on written notice from Client revoking these Client Resolutions or such authority;
8. RESOLVED: That Client hereby ratifies and confirms all: (a) actions taken, (b) notices, certifications, directions and instructions given, and (c) all agreements, instruments, and other documents entered into, which relate to the Services provided or to be provided by M&T Bank with respect to any Accounts, prior to the date hereof.

9. RESOLVED: That Client is duly organized, validly existing and in good standing under the laws of the State, Commonwealth or other jurisdiction as set forth above. No petition for dissolution has been filed or is pending. Client has, and at the time of adoption of the resolutions in this Client Resolution had, full power and lawful authority to adopt the resolutions herein and to confer the powers granted in them to the persons named above, including any delegation of powers, and any person named above shall have full power and lawful authority to exercise those powers. No other action or consent of any other person or entity is necessary in order for this Client Resolution and the resolutions herein to be effective.

IN WITNESS WHEREOF, I have executed this Client Resolution on behalf of the Client on the date set forth above, and hereby certify that I have the power and authority to execute and deliver this Client Resolution to M&T Bank.

CLIENT:

Signature of Assistant Secretary

Name: Norma Cusick Title: Assistant Secretary

Date: 24 October 2016

M&T Internal Use Only:

Reviewed by (name):

Signature:

Date:

RESOLUTION No. 10-2016-3

(Duly adopted 24 October 2016)

A RESOLUTION AUTHORIZING THE SUBMISSION OF A FINANCIAL ASSISTANCE APPLICATION TO THE COMMONWEALTH FINANCING AUTHORITY FOR A GRANT FOR THE CRESTWOOD ALTERNATE WATER SUPPLY PROJECT

WHEREAS, the Lehigh County Authority ("Authority" or "Applicant") is, and has been, developing regional water and sewer systems in Lehigh Valley area of Pennsylvania; and

WHEREAS, the Authority is a water and sewer provider within North Whitehall Township (the "Township") and designed and will construct an alternative water supply for the Crestwood development in the Township (the "Project"); and

WHEREAS, the Authority wishes to apply to the Commonwealth Financing Authority ("CFA") for a grant to finance the Project;

NOW THEREFORE BE IT RESOLVED:

1. That the Lehigh County Authority of Lehigh County hereby request a PA Small Water and Sewer Program grant of \$259,250.00 from the Commonwealth Financing Authority to be used for the Crestwood Alternate Water Supply Project

2. That the Applicant does hereby designate Liesel M. Gross, Chief Executive Officer and Edward C. Klein, Chief Financial Officer as the official(s) to execute all documents and agreements between the Lehigh County Authority and the Commonwealth Financing Authority to facilitate and assist in obtaining the requested grant, with the Solicitor or Human Resources Manager authorized to attest to such signatures.

IN WITNESS THEREOF, I affix my hand and attach the seal of the Lehigh County Authority (Applicant), this ____ day of _____, 20__.

I, Norma Cusick, duly qualified Assistant Secretary of the Lehigh County Authority, Lehigh County, PA, hereby certify that the forgoing is a true and correct copy of a Resolution duly adopted by a majority vote of the Lehigh County at a regular meeting held 24 October 2016 and said Resolution has been recorded in the Minutes of the Lehigh County Authority and remains in effect as of this date.

Norma Cusick, Assistant Secretary

RESOLUTION No. 10-2016-4

(Duly adopted 24 October 2016)

A RESOLUTION AUTHORIZING THE SUBMISSION OF A FINANCIAL ASSISTANCE APPLICATION TO THE COMMONWEALTH FINANCING AUTHORITY FOR A GRANT FOR THE HEIDELBERG HEIGHTS WASTEWATER TANK RE-COATING PROJECT

WHEREAS, the Lehigh County Authority ("Authority" or "Applicant") is, and has been, developing regional water and sewer systems in Lehigh Valley area of Pennsylvania; and

WHEREAS, the Authority is a water and sewer provider within Heidelberg Township (the "Township") and is rehabilitating a wastewater tank for the public sanitary sewer system of the Heidelberg Heights development in the Township (the "Project"); and

WHEREAS, the Authority wishes to apply to the Commonwealth Financing Authority ("CFA") for a grant to finance the Project;

NOW THEREFORE BE IT RESOLVED:

1. That the Lehigh County Authority of Lehigh County hereby request a PA Small Water and Sewer Program grant of \$164,100.00 from the Commonwealth Financing Authority to be used for the Project

2. That the Applicant does hereby designate Liesel M. Gross, Chief Executive Officer and Edward C. Klein, Chief Financial Officer as the official(s) to execute all documents and agreements between the Lehigh County Authority and the Commonwealth Financing Authority to facilitate and assist in obtaining the requested grant, with the Solicitor or Human Resources Manager authorized to attest to such signatures.

IN WITNESS THEREOF, I affix my hand and attach the seal of the Lehigh County Authority (Applicant), this ____ day of _____, 20__.

I, Norma Cusick, duly qualified Assistant Secretary of the Lehigh County Authority, Lehigh County, PA, hereby certify that the forgoing is a true and correct copy of a Resolution duly adopted by a majority vote of the Lehigh County at a regular meeting held 24 October 2016 and said Resolution has been recorded in the Minutes of the Lehigh County Authority and remains in effect as of this date.

Norma Cusick, Assistant Secretary



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: October 24, 2016

To: Authority Board

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

Subject: Suburban Division – Park Pump Station Upgrade

MOTIONS /APPROVALS REQUESTED:

No.	Item	Amount
1	<u>Capital Project Authorization – Design & Bid Phase</u>	\$302,755
2	<u>Professional Services Authorization:</u> <u>Design & Bid Phase – Whitman, Requardt, and Associates, LLP</u> <u>(WRA)</u>	\$227,755

PROJECT BACKGROUND:

The Park Pump Station was constructed in the early 1980s and is located in Little Lehigh Parkway within the City of Allentown. The station was designed with a pumping capacity of 24 million gallons per day, and originally intended to serve as a relief facility for the Western Lehigh and Little Lehigh Interceptors during wet weather events. The station conveys wastewater from ten municipalities to just upstream of Kline's Island Wastewater Treatment Plant. The station has seen a dramatic increase in operation since its inception, and is now operated daily which has resulted in significant wear and tear on equipment, with many components nearing the end of their service life. In addition, the increasing frequency of pump related repairs and declining pump performance has necessitated an upgrade of this essential asset in order to restore the station to its design capacity and avoid sanitary sewer surcharging and overflows in the interceptors.

PROJECT OBJECTIVE:

The purpose of this project is to replace the pumps, replace the electrical controls and drives, and perform other related upgrade work in order to restore the station to its original design capacity (level of service), extend the service life of the station, and enhance station reliability.

The improvements are consistent with provisions of the EPA Administrative Order.

FINANCIAL:

The Project will be funded by the LCA Suburban Division.

PROJECT STATUS

Requests for Proposals were issued in September 2016, with tours of the facility being conducted on an appointment basis. Three (3) pre-qualified engineering firms were invited to submit proposals. Proposals were received by October 7, 2016. The proposals were reviewed by LCA staff.

THIS APPROVAL: Design Phase

BIDS

Three proposals were solicited and received. The firms and respective proposal amounts appear in Table 1 below:

Table 1 – Bid Results	
Design & Bid Phase	
Contractor	WLI Amount
<i>Whitman Requardt & Associates, LLP</i>	<i>\$227,755</i>
<i>Hazen & Sawyer, Inc.</i>	<i>\$259,988</i>
<i>Arcadis</i>	<i>\$260,620</i>

The recommendation of this memorandum is authorization to award the work to Whitman, Requardt, & Associates. WRA has extensive experience in pump station upgrade design and appears well qualified to perform the work. WRA has performed hydraulic modeling as part of a Sanitary Sewer Evaluation Survey of the Allentown sewage collection system, which included analysis of impacts of the Park Pump Station force main.

MATERIAL PROCUREMENT: N/A

PROFESSIONAL SERVICES :

WRA's services consist of the following scope:

Task 1 – 60% Design Submission

- Attend kickoff and progress meetings at LCA
- Conduct field investigations
- Develop system curve and size/select dry pit submersible pump to replace extended shaft pumps
- Design of other mechanical upgrades to satisfy DEP permit-level design
- Prepare technical specifications for major equipment

Task 2 – DEP Part 2 Water Quality Management Permit Application

- Prepare Basis of Design report
- Prepare DEP Part 2 WQM application documents and submission to DEP
- Address DEP technical review comments; secure permit approval

Task 3 – 90% Design Submission

- Design of enhanced logic SCADA system
- Design of replacement of existing rheostat pump controllers with modern variable frequency drive controllers, related electrical upgrades
- Design of roof replacement
- Design of larger pump access hatch
- Design of force main drain valve replacement
- Instrumentation and process control equipment design
- Development of detailed sequence of construction specifications
- Progress meeting attendance

Task 4 – Final Design Submission

- Front end specifications preparation; prepare final contract documents
- Incorporate all LCA technical review comments
- Progress meeting attendance

Task 5 – Bid Phase Services

- Provide contract documents for bidding
- Attend pre-bid meeting
- Address all bidder requests for information
- Prepare addenda as necessary to address bidder comments and concerns

SCHEDULE

Assuming approval at the October 24, 2016 Board meeting, the Work is anticipated to be started November 1, 2016 with design completion scheduled for March 21, 2017. Bid phase is anticipated to begin following design completion and conclude by May 1, 2017.

FUTURE AUTHORIZATIONS

Construction phase.

CAPITAL PROJECT AUTHORIZATION

PROJECT NO.:	<u>SD-S-15</u>	BUDGET FUND:	<u>Suburban Div\Wastewater\Capital</u>
PROJECT TITLE:	<u>Park Pump Station Upgrade - Design & Bid</u>	PROJECT TYPE:	<input type="checkbox"/> Construction <input checked="" type="checkbox"/> Engineering Design <input type="checkbox"/> Equipment Purchase <input type="checkbox"/> Amendment
THIS AUTHORIZATION:	<u>\$ 302,755</u>		
TO DATE (W/ ABOVE)	<u>\$ 302,755</u>		

DESCRIPTION AND BENEFITS:

Pump Station Rehabilitation/Improvements - Design & Bid Phase Contract:

This contract consists of providing design and bid phase services for the upgrade of the Park Pump Station. This design includes, but is not limited to, replacement of pumps and motors, replacement of pump controls with new controls and variable frequency drives, roof replacement, force main drain valve replacement, and other related improvements. Detailed construction sequencing protocol will be put forth in the specifications to maintain conveyance of wastewater throughout construction. DEP permitting and bid phase assistance are included. The objective of the project is to restore the station to its original design capacity (level of service), extend the service life of the station, and enhance station reliability for this important facility.

Previous Authorizations	
none	

REQUESTED THIS AUTHORIZATION	
Design & Bid Phase	
Staff	\$40,000
Professional Services:	
Design & Bid Phase Services - WRA	\$227,755
Contingency	\$35,000
Total This Authorization	\$302,755

Future Authorization	
Construction Phase	\$2,647,245

Total Estimated Project	\$2,950,000
-------------------------	-------------

REVIEW AND APPROVALS:

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



Lehigh County Authority

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

PROFESSIONAL SERVICES AUTHORIZATION

Professional:

Whitman, Requardt, and Associates,
LLP

Att: Dennis J. Hasson, P.E., BCEE
801 S. Carolina St
Baltimore, MD 21231

Date: 10/24/2016

Requested By: Charles Volk

Approvals

Department Head: Frank Liest

Chief Executive Officer:

Description of Services:**Park Pump Station Upgrade Project**

This contract consists of providing design and bid phase services for the upgrade of the Park Pump Station. This design includes, but is not limited to, replacement of pumps and motors, replacement of pump controls with new controls and variable frequency drives, roof replacement, force main drain valve replacement, and other related improvements

WRA's services consist of the following scope:

Task 1 – 60% Design Submission

- Attend kickoff and progress meetings at LCA
- Conduct field investigations
- Develop system curve and size/select dry pit submersible pump to replace extended shaft pumps
- Design of other mechanical upgrades to satisfy DEP permit-level design
- Prepare technical specifications for major equipment

Task 2 – DEP Part 2 Water Quality Management Permit Application

- Prepare Basis of Design report
- Prepare DEP Part 2 WQM application documents and submission to DEP
- Address DEP technical review comments; secure permit approval

Task 3 – 90% Design Submission

- Design of enhanced logic SCADA system
- Design of replacement of existing rheostat pump controllers with modern variable frequency drive controllers, related electrical upgrades
- Design of roof replacement
- Design of larger pump access hatch
- Design of force main drain valve replacement
- Instrumentation and process control equipment design
- Development of detailed sequence of construction specification to maintain station operation during construction
- Progress meeting attendance

Task 4 – Final Design Submission

- Front end specifications preparation; prepare final contract documents
- Incorporate all LCA technical review comments
- Progress meeting attendance

Task 5 – Bid Phase Services

- Provide contract documents for bidding
- Attend pre-bid meeting
- Address all bidder requests for information
- Prepare addenda as necessary to address bidder comments and concerns

Cost Estimate (not to be exceeded without further authorization): Proposed consulting service described in the WRA proposal dated October 7, 2016 is on a lump sum basis not to exceed **\$227,755**.

Time Table and Completion Deadline:

Design work to be anticipated to be completed by March 21, 2017.

(For Authority Use Only)

Authorization Completion:

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

Capital Project SD-S-15, Park Pump Station Rehabilitation/Improvements

FINANCIAL REPORT

SEPTEMBER 2016

1. SUMMARY

	City Division			Suburban Division			LCA TOTAL		
MONTH	Actual	Forecast	Variance	Actual	Forecast	Variance	Actual	Forecast	Variance
Net Income (Loss)	(871,720)	(501,000)	(370,720)	25,191	(250,000)	275,191	(846,529)	(751,000)	(95,529)
Net Cash Flows	318,609	477,000	(158,391)	395,865	98,000	297,865	714,474	575,000	139,474
	City Division			Suburban Division			LCA TOTAL		
YEAR-TO-DATE	Actual	Forecast	Variance	Actual	Forecast	Variance	Actual	Forecast	Variance
Net Income (Loss)	(6,486,046)	(6,716,000)	229,954	608,192	(23,000)	631,192	(5,877,854)	(6,739,000)	861,146
Net Cash Flows	2,412,911	1,903,000	509,911	3,782,740	3,568,000	214,740	6,195,650	5,471,000	724,650
Debt Service Coverage	1.40	1.34	0.06	2.29	2.07	0.22	3.69	3.41	0.27

For the month, total LCA finished lower than forecast on net income with a higher than forecasted loss, but finished with a positive cash flow that was higher than forecast. The unfavorable variance to forecast on net income was driven by an unfavorable variance in the City Division that was partly offset by a favorable variance in the Suburban Division. The favorable variance on the positive cash flow was driven by positive cash flow across both the City and Suburban divisions that was higher than forecast.

Year-to-date total LCA net income and cash flows were both higher than forecast. On net income, the City was favorable to forecast as was Suburban. On cash flows, both City and Suburban cash flows are positive and both the City and Suburban cash flows were better than forecast.

Year-to-date debt service coverage ratios are better than forecast and better than internal target of 1.20 across both divisions. City is at 1.40 compared to forecast of 1.32 and is 0.20 better than the indenture requirement of 1.20. Suburban is at 2.29 compared to forecast of 2.07 and internal target of 1.20.

2. MONTH - INCREASE (DECREASE) IN NET POSITION

A. City

	Month				Forecast
	Actual	Forecast	Budget	Prior Yr	Variance
OPERATING REVENUES					
Charges for Service	2,879,706	2,776,000	2,709,885	2,708,582	103,706
Rent	-	-	-	-	-
Other Income	39,536	20,000	25,233	32,635	19,536
Total Operating Revenues	2,919,242	2,796,000	2,735,118	2,741,217	123,242
OPERATING EXPENSES					
Salaries, Wages, and Benefits	896,728	676,000	625,808	660,656	(220,728)
General & Administrative	41,190	46,000	45,785	36,674	4,810
Utilities	218,683	156,000	175,398	163,343	(62,683)
Materials & Supplies	196,317	159,000	224,609	205,182	(37,317)
Miscellaneous Services	264,930	255,000	128,828	215,054	(9,930)
Treatment & Transportation	-	-	-	-	-
Depreciation & Amortization	450,000	450,000	450,000	441,114	-
Total Operating Expenses	2,067,848	1,742,000	1,650,428	1,722,023	(325,848)
OPERATING INCOME (LOSS)	851,394	1,054,000	1,084,690	1,019,194	(202,606)
NONOPERATING REVENUES (EXPENSES)					
Tapping and Capital Recovery Fees	91,774	2,000	17,750	2,322	89,774
Meter Sales	3,099	1,000	1,417	-	2,099
Inspection & Plan Reviews	6,265	2,000	2,250	2,468	4,265
Other Income	5,887	5,000	1,667	3,270	887
Other Expense	(515,151)	(300,000)	(512,181)	2,970	(215,151)
Interest Earnings	471	50,000	35,833	455	(49,529)
Interest Expense	(1,315,458)	(1,315,000)	(1,315,458)	(1,001,195)	(458)
Total Nonoperating Expenses	(1,723,114)	(1,555,000)	(1,768,722)	(989,710)	(168,114)
INCREASE (DECREASE) IN NET POSITION BEFORE CAPITAL CONTRIBUTIONS	(871,720)	(501,000)	(684,032)	29,485	(370,720)
CAPITAL CONTRIBUTIONS					
Capital Grant	-	-	-	-	-
Capital Assets Provided By Developers and Others	-	-	-	-	-
Total Capital Contributions	-	-	-	-	-
INCREASE (DECREASE) IN NET POSITION	<u>(871,720)</u>	<u>(501,000)</u>	<u>(684,032)</u>	<u>29,485</u>	<u>(370,720)</u>

For the month, the City had a net loss of \$872k. This loss was around \$371k worse than the forecasted loss for the month. Primary drivers of the favorable variance to forecast was higher operating revenues being more than offset by higher operating expenses and higher non-operating expenses.

Revenues were \$123k higher than forecast with wastewater revenues higher by \$143k along with \$19k of higher other revenues to more than offset a shortfall of \$39k on the water side. Wastewater revenues were up to forecast on higher residential and industrial user charges. Water revenues were lower on lower residential revenues.

Operating expenses were \$326k unfavorable to forecast with unfavorable variances on employee costs, utilities, materials & supplies, and outside services. Employee costs were unfavorable to forecast as three payrolls processed in September creating a timing difference against forecast as the three payrolls were forecast for October instead of this month. Utilities were up due to an over-accrual that will be trued-up

in October and outside services were up due to a large invoice for a large volume of work performed on sanitary sewer lines.

Non-operating expenses were higher than forecast due to timing of capital project costs that are charged to expense.

B. Suburban

	Month				Forecast Variance
	Actual	Forecast	Budget	Prior Yr	
OPERATING REVENUES					
Charges for Service	2,318,578	1,931,000	3,120,731	2,130,546	387,578
Rent	7,938	15,000	14,917	9,585	(7,062)
Other Income	6,513	51,000	50,799	12,489	(44,487)
Total Operating Revenues	2,333,029	1,997,000	3,186,447	2,152,621	336,029
OPERATING EXPENSES					
Salaries, Wages, and Benefits	303,661	215,000	183,985	239,675	(88,661)
General & Administrative	11,358	20,000	19,530	9,958	8,642
Utilities	61,741	54,000	64,259	58,222	(7,741)
Materials & Supplies	129,790	111,000	260,633	238,353	(18,790)
Miscellaneous Services	698,404	850,000	666,383	702,718	151,596
Treatment & Transportation	547,212	465,000	450,321	457,307	(82,212)
Depreciation & Amortization	580,745	573,000	572,926	591,210	(7,745)
Total Operating Expenses	2,332,911	2,288,000	2,218,037	2,297,442	(44,911)
OPERATING INCOME (LOSS)	118	(291,000)	968,410	(144,821)	291,118
NONOPERATING REVENUES (EXPENSES)					
Tapping and Capital Recovery Fees	82,896	100,000	112,415	409,563	(17,104)
Meter Sales	5,172	10,000	6,250	7,884	(4,828)
Inspection & Plan Reviews	5,179	10,000	8,000	42,816	(4,821)
Other Income	30,584	6,000	458	3,745	24,584
Other Expense	(219)	-	(583)	(220)	(219)
Interest Earnings	5,749	20,000	3,152	2,977	(14,251)
Interest Expense	(104,289)	(105,000)	(139,076)	(110,501)	711
Total Nonoperating Expenses	25,072	41,000	(9,384)	356,265	(15,928)
INCREASE (DECREASE) IN NET POSITION BEFORE CAPITAL CONTRIBUTIONS	25,191	(250,000)	959,026	211,443	275,191
CAPITAL CONTRIBUTIONS					
Capital Grant	-	-	-	-	-
Capital Assets Provided By Developers and Others	-	-	-	-	-
Total Capital Contributions	-	-	-	-	-
INCREASE (DECREASE) IN NET POSITION	25,191	(250,000)	959,026	211,443	275,191

Suburban net income of \$25k was favorable to forecast by \$275k. This was driven by higher operating revenues with a small offset from higher operating expenses and higher non-operating expenses.

Operating revenues were \$336k higher than forecast with user charges up by \$388k offset partly by lower rental income and lower miscellaneous other income. User revenues were up on both water and wastewater. Water revenues were up across industrial and residential areas. Wastewater revenues were up in the western Lehigh Interceptor area partly offset by slightly lower wastewater treatment plant revenues.

Operating expenses were \$45k unfavorable to forecast driven by higher employee costs and treatment & transportation offset partly by spending on materials & supplies. Employee costs were affected by the third payroll similar to City that was not forecasted until October. Treatment & transportation costs were negatively impacted by signatory cost true-ups.

Non-operating revenues (expenses) were unfavorable on lower interest income from lower invested balances.

3. MONTH – NET CASH FLOWS

A. City

	Month				Forecast
	Actual	Forecast	Budget	Prior Year	Variance
Increase (Decrease) in Net position	(871,720)	(501,000)	(684,032)	29,485	(370,720)
Depreciation (non-cash)	450,000	450,000	450,000	441,114	-
Non-Cash Interest expenses	228,148	228,000	228,148	26,445	148
Expenses from Capital Projects	512,181	300,000	512,181	2,970	212,181
Cash generated by Operations	318,609	477,000	506,297	500,014	- (158,391)
Capex spending	(2,446,884)	(1,000,000)	(1,391,425)	(1,067,015)	(1,446,884)
Capex Funding Applied	2,446,884	1,000,000	1,391,425	1,067,015	1,446,884
Principal Payments	-	-	-	-	-
Concession Lease Payment	-	-	-	-	-
NET CASH FLOWS	318,609	477,000	506,297	500,014	(158,391)

Cash flow for the month was on the positive side but was lower than forecast by \$158k on lower net income.

B. Suburban

	Month				Forecast
	Actual	Forecast	Budget	Prior Year	Variance
Increase (Decrease) in Net position	25,191	(250,000)	959,026	211,443	275,191
Depreciation (non-cash)	580,745	573,000	572,926	591,210	7,745
Cash generated by Operations	605,936	323,000	1,531,952	802,653	282,936
Capex spending	(585,876)	(500,000)	(998,023)	(219,144)	(85,876)
Capex Funding Applied	585,876	500,000	998,023	219,144	85,876
Principal Payments	(210,071)	(225,000)	(152,405)	(162,742)	14,929
NET CASH FLOWS	395,865	98,000	1,379,547	639,911	297,865

Cash flow for the month was positive and higher than forecast by \$298k due to higher net income.

4. YTD – INCREASE (DECREASE) IN NET POSITION

A. City

	YTD				Forecast
	Actual	Forecast	Budget	Prior Yr	Variance
OPERATING REVENUES					
Charges for Service	23,290,176	22,639,000	23,742,504	21,687,628	651,176
Rent	-	-	-	-	-
Other Income	283,441	230,000	227,097	190,856	53,441
Total Operating Revenues	23,573,616	22,869,000	23,969,601	21,878,484	704,616
OPERATING EXPENSES					
Salaries, Wages, and Benefits	6,481,199	6,258,000	5,945,176	6,201,783	(223,199)
General & Administrative	492,093	417,000	412,065	451,972	(75,093)
Utilities	1,486,095	1,393,000	1,578,582	1,518,212	(93,095)
Materials & Supplies	1,469,862	1,373,000	1,968,539	1,540,926	(96,862)
Miscellaneous Services	1,804,191	1,876,000	1,159,452	1,720,701	71,809
Treatment & Transportation	5,429	5,000	-	5,301	(429)
Depreciation & Amortization	4,050,000	4,050,000	4,050,000	3,970,026	-
Total Operating Expenses	15,788,870	15,372,000	15,113,814	15,408,922	(416,870)
OPERATING INCOME (LOSS)	7,784,747	7,497,000	8,855,787	6,469,562	287,747
NONOPERATING REVENUES (EXPENSES)					
Tapping and Capital Recovery Fees	337,902	165,000	159,750	32,579	172,902
Meter Sales	11,360	7,000	12,753	22,481	4,360
Inspection & Plan Reviews	27,072	26,000	20,250	10,523	1,072
Other Income	41,244	43,000	15,003	3,270	(1,756)
Other Expense	(3,053,425)	(2,766,000)	(3,045,625)	2,970	(287,425)
Interest Earnings	204,176	152,000	322,497	288,312	52,176
Interest Expense	(11,839,122)	(11,840,000)	(11,839,122)	(9,010,755)	878
Total Nonoperating Expenses	(14,270,793)	(14,213,000)	(14,354,494)	(8,650,620)	(57,793)
INCREASE (DECREASE) IN NET POSITION BEFORE CAPITAL CONTRIBUTIONS	(6,486,046)	(6,716,000)	(5,498,707)	(2,181,058)	229,954
CAPITAL CONTRIBUTIONS					
Capital Grant	-	-	-	-	-
Capital Assets Provided By Developers and Others	-	-	-	-	-
Total Capital Contributions	-	-	-	-	-
INCREASE (DECREASE) IN NET POSITION	(6,486,046)	(6,716,000)	(5,498,707)	(2,181,058)	229,954

City net income YTD is \$230k better than forecast YTD. This is primarily due to significantly higher operating revenues and higher non-operating revenues to offset higher operating expenses.

YTD Operating revenues are up to forecast by \$705k with customer charges up by \$651k and other miscellaneous up by \$54k. User charges were up with Wastewater up by \$772k while water was down by \$121k to partially offset

YTD operating expenses are \$417k higher than forecast due to unfavorable variances on all categories except for services. As discussed earlier, employee cost timing and accrual adjustments had a negative impact on this.

YTD Non-operating revenues are higher than forecast from higher tapping and capital recovery fees and higher interest income with a partial offset from the timing of costs expensed from capital projects.

B. Suburban

	YTD				Forecast
	Actual	Forecast	Budget	Prior Yr	Variance
OPERATING REVENUES					
Charges for Service	19,729,629	18,988,000	18,703,390	19,305,132	741,629
Rent	75,633	96,000	134,253	96,598	(20,367)
Other Income	187,237	289,000	457,191	453,808	(101,763)
Total Operating Revenues	19,992,499	19,373,000	19,294,834	19,855,538	619,499
OPERATING EXPENSES					
Salaries, Wages, and Benefits	2,091,548	2,035,000	1,747,856	1,814,754	(56,548)
General & Administrative	203,552	192,000	175,770	205,138	(11,552)
Utilities	523,253	519,000	578,331	535,029	(4,253)
Materials & Supplies	779,402	731,000	1,503,246	1,366,003	(48,402)
Miscellaneous Services	6,666,675	7,051,000	5,997,447	5,448,244	384,325
Treatment & Transportation	4,755,219	4,298,000	4,022,267	3,978,445	(457,219)
Depreciation & Amortization	5,164,089	5,157,000	5,156,334	5,320,890	(7,089)
Total Operating Expenses	20,183,738	19,983,000	19,181,251	18,668,504	(200,738)
OPERATING INCOME (LOSS)	(191,239)	(610,000)	113,583	1,187,035	418,761
NONOPERATING REVENUES (EXPENSES)					
Tapping and Capital Recovery Fees	1,410,387	1,171,000	1,011,735	1,762,673	239,387
Meter Sales	129,498	121,000	56,250	69,348	8,498
Inspection & Plan Reviews	69,891	64,000	72,000	163,112	5,891
Other Income	86,669	69,000	4,122	27,196	17,669
Other Expense	(6,051)	(5,000)	(5,247)	(44,399)	(1,051)
Interest Earnings	49,757	109,000	28,368	25,526	(59,243)
Interest Expense	(940,720)	(942,000)	(1,251,684)	(1,028,887)	1,280
Total Nonoperating Expenses	799,431	587,000	(84,456)	974,570	212,431
INCREASE (DECREASE) IN NET POSITION BEFORE CAPITAL CONTRIBUTIONS	608,192	(23,000)	29,127	2,161,604	631,192
CAPITAL CONTRIBUTIONS					
Capital Grant	-	-	-	-	-
Capital Assets Provided By Developers and Others	-	-	-	-	-
Total Capital Contributions	-	-	-	-	-
INCREASE (DECREASE) IN NET POSITION	608,192	(23,000)	29,127	2,161,604	631,192

YTD Suburban net income is \$356k higher than forecast. This is primarily due to higher operating revenues and higher non-operating revenues to more than offset higher operating expenses. The primary cause of the unfavorable operating expenses is the recognition of the signatory true up costs in treatment & transportation expenses. Higher non-operating revenues from tapping and capital fees have more than offset the lower interest income from lower investment volumes.

5. YTD – NET CASH FLOWS

A. City

	YTD				Forecast
	Actual	Forecast	Budget	Prior Yr	Variance
Increase (Decrease) in Net position	(6,486,046)	(6,716,000)	(5,498,707)	(2,181,058)	229,954
Non-Cash Depreciation & Other Adjustments	9,148,957	8,869,000	9,148,957	3,970,026	279,957
Cash generated by Operations	2,662,911	2,153,000	3,650,250	1,788,968	509,911
Capex spending	(10,002,370)	(7,190,000)	(12,522,825)	(5,946,260)	(2,812,370)
Capex Funding Applied	10,002,370	7,190,000	12,522,825	5,946,260	2,812,370
Principal Payments	-	-	-	-	-
Annual Payment	(250,000)	(250,000)	(250,000)	-	-
NET CASH FLOWS	2,412,911	1,903,000	3,400,250	1,788,968	509,911

YTD cash flow in the City is \$510k higher than forecast on higher cash from operations driven by higher net income.

B. Suburban

	YTD				Forecast
	Actual	Forecast	Budget	Prior Yr	Variance
Increase (Decrease) in Net position	608,192	(23,000)	29,127	2,161,604	631,192
Non-Cash Depreciation & Other Adjustments	5,164,089	5,157,000	5,156,334	5,320,890	7,089
Cash generated by Operations	5,772,281	5,134,000	5,185,461	7,482,494	638,281
Capex spending	(2,630,338)	(2,969,000)	(8,982,207)	(1,934,896)	338,662
Capex Funding Applied	2,630,338	2,969,000	8,982,207	1,934,896	(338,662)
Principal Payments	(1,989,541)	(1,566,000)	(1,371,645)	(1,746,952)	(423,541)
Annual Payment	-	-	-	-	-
NET CASH FLOWS	3,782,740	3,568,000	3,813,816	5,735,543	214,740

YTD Suburban cash flow is positive but \$215k better than forecast due to higher net income.

6. FULL YEAR FORECAST

We have completed Q3, against forecast YTD we are higher on net income and higher on cash flows, in total, and both City and Suburban Divisions are higher than forecast on both net income and cash flows.

After the 2017 Budget is approved and submitted, the Q4 Forecast will be developed and reported.

The following table is a summary of the latest forecast submitted:

SUMMARY	2016 Q3	2016	Budget
	Forecast	Budget	Variance
Increase (Decrease) in Net Position			
City	(9,060)	(4,436)	(4,624)
Suburban	(1,194)	(578)	(616)
Total LCA	(10,254)	(5,014)	(5,240)
Cash Flows			
City	2,243	4,040	(1,797)
Suburban	3,658	1,582	2,076
Total LCA	5,901	5,622	279

7. FINANCIAL STATEMENTS

A. City

LEHIGH COUNTY AUTHORITY STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION CITY DIVISION													
	Sep-2016				2016 YTD				Annual Budget	Month Variance to		YTD Variance to	
	Actual	Forecast	Budget	Prior Yr	Actual	Forecast	Budget	Prior Yr		Forecast	Budget	Forecast	Budget
OPERATING REVENUES													
Charges for Service	2,879,706	2,776,000	2,709,885	2,708,582	23,290,176	22,639,000	23,742,504	21,687,628	31,529,219	103,706	169,821	171,124	651,176
Rent	-	-	-	-	-	-	-	-	-	-	-	-	(452,328)
Other Income	39,536	20,000	25,233	32,635	283,441	230,000	227,097	190,856	302,800	19,536	14,303	6,901	56,344
Total Operating Income	2,919,242	2,796,000	2,735,118	2,741,217	23,573,616	22,869,000	23,969,601	21,878,484	31,832,019	123,242	184,124	178,025	704,616
OPERATING EXPENSES													
Salaries, Wages, and Benefits	896,728	676,000	625,808	660,656	6,481,199	6,258,000	5,945,176	6,201,783	8,135,510	(220,728)	(270,920)	(236,071)	(223,199)
General & Administrative	41,190	46,000	45,785	36,674	492,093	417,000	412,065	451,972	549,424	4,810	4,595	(4,515)	(75,093)
Utilities	218,683	156,000	175,398	163,343	1,486,095	1,393,000	1,578,582	1,518,212	2,104,778	(62,863)	(43,285)	(85,340)	(93,095)
Materials & Supplies	196,317	159,000	224,609	205,182	1,469,862	1,373,000	1,968,536	1,540,508	2,652,252	(37,317)	28,392	8,864	(96,862)
Miscellaneous Services	264,930	255,000	128,828	215,054	1,804,191	1,876,000	1,159,452	1,720,701	2,347,154	(9,930)	(136,102)	(49,876)	71,809
Treatment & Transportation	-	-	-	-	5,429	5,000	-	5,301	-	-	-	-	(429)
Depreciation & Amortization	450,000	450,000	441,114	4,050,000	4,050,000	4,050,000	4,050,000	3,970,026	5,400,000	-	-	(8,886)	(29,974)
Total Operating Expenses	2,067,848	1,742,000	1,650,428	1,722,023	15,788,870	15,372,000	15,113,814	15,408,922	21,189,118	(325,848)	(417,420)	(345,825)	(416,870)
OPERATING INCOME (LOSS)	851,394	1,054,000	1,084,690	1,019,194	7,784,747	7,497,000	8,855,787	6,469,562	10,642,901	(202,606)	(233,296)	(167,800)	287,747
NONOPERATING REVENUES (EXPENSES)													
Tapping and Capital Recovery Fees	91,774	2,000	17,750	2,322	337,902	165,000	159,750	32,579	213,000	89,774	74,024	89,452	172,902
Meter Sales	3,099	1,000	1,417	-	11,360	7,000	12,753	22,481	17,000	2,099	1,682	3,099	4,360
Inspection & Plan Reviews	6,265	2,000	2,250	2,468	27,072	26,000	20,250	10,523	27,000	4,265	4,015	3,797	6,822
Other Income	5,887	5,000	1,667	3,270	41,244	43,000	15,003	3,270	20,000	887	4,220	2,617	(1,756)
Other Expense	(515,151)	(300,000)	(512,181)	2,970	(3,053,425)	(2,786,000)	(3,045,625)	2,970	-	(215,151)	(2,970)	(518,121)	(287,425)
Interest Earnings	471	50,000	35,833	455	204,176	152,000	322,497	288,312	430,000	(49,529)	(35,362)	16	52,176
Interest Expense	(1,315,458)	(1,315,000)	(1,315,458)	(1,001,195)	(11,839,122)	(11,840,000)	(11,839,122)	(9,010,755)	(15,785,500)	(458)	-	(314,263)	878
Total Nonoperating Expenses	(1,723,114)	(1,555,000)	(1,768,722)	(989,710)	(14,270,789)	(14,213,000)	(14,354,494)	(8,650,620)	(15,078,500)	(168,114)	45,608	(733,404)	(57,793)
INCREASE (DECREASE) IN NET POSITION BEFORE CAPITAL CONTRIBUTIONS	(871,720)	(501,000)	(684,032)	29,485	(6,486,046)	(6,716,000)	(5,498,707)	(2,181,058)	(4,435,599)	(370,720)	(187,687)	(901,204)	229,954
CAPITAL CONTRIBUTIONS													
Capital Grant	-	-	-	-	-	-	-	-	-	-	-	-	-
Capital Assets Provided By Developers and Others	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Capital Contributions	-	-	-	-	-	-	-	-	-	-	-	-	-
INCREASE (DECREASE) IN NET POSITION	(871,720)	(501,000)	(684,032)	29,485	(6,486,046)	(6,716,000)	(5,498,707)	(2,181,058)	(4,435,599)	(370,720)	(187,687)	(901,204)	229,954

LEHIGH COUNTY AUTHORITY COMPARATIVE STATEMENT FORMAT CITY DIVISION													
	Sep-2016				2016 YTD				Annual Budget	Month Variance to		YTD Variance to	
	Actual	Forecast	Budget	Prior Yr	Actual	Forecast	Budget	Prior Yr		Forecast	Budget	Forecast	Budget
OPERATING REVENUES													
Customer Charges	2,879,706	2,776,000	2,709,885	2,708,582	23,290,176	22,639,000	23,742,504	21,687,628	31,529,219	169,821	171,124	(452,328)	1,602,548
Rental Income	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Operating Income	39,536	20,000	25,233	32,635	283,441	227,097	190,856	190,856	302,800	14,303	6,901	56,344	92,585
Total Operating Revenues	2,919,242	2,796,000	2,735,118	2,741,217	23,573,616	22,869,000	23,969,601	21,878,484	31,832,019	184,124	178,025	(395,985)	1,695,133
OPERATING EXPENSES													
Salaries & Wages	600,654	394,921	394,921	404,795	4,104,552	3,751,749	3,894,852	3,894,852	5,133,971	(205,733)	(195,859)	(352,803)	(209,899)
Overtime	81,930	57,894	43,851	43,851	500,144	549,898	472,357	472,357	752,495	(24,046)	(38,079)	49,754	(27,788)
Employee Benefits	214,144	173,003	212,010	212,010	1,876,503	1,643,529	1,834,574	1,834,574	2,249,045	(41,141)	(2,133)	(232,974)	(41,929)
Utilities	218,683	175,398	163,343	163,343	1,486,095	1,578,582	1,518,212	1,518,212	2,104,778	(43,285)	(55,340)	92,487	32,118
Insurance	31,554	39,752	32,486	32,486	420,368	357,768	410,969	410,969	477,027	8,198	932	(62,600)	(9,308)
Maintenance	49,976	71,595	122,721	122,721	456,832	627,478	561,516	561,516	833,305	21,619	72,744	170,646	94,684
Engineering	-	1,976	-	-	36,295	17,322	13,021	13,021	61,000	1,976	-	(18,973)	(23,274)
Legal	9,636	6,033	4,188	4,188	71,725	54,297	41,003	41,003	72,396	(3,603)	(5,448)	(17,428)	(30,722)
Lab Analysis	799	1,719	187	187	4,161	15,064	5,336	5,336	20,000	920	(613)	10,903	1,175
Supplies & Equipment	145,542	149,319	82,275	82,275	972,575	1,306,675	971,053	971,053	1,737,946	3,777	(63,267)	336,100	(1,521)
Other Outside Services	210,813	77,573	154,673	154,673	1,210,189	698,157	1,188,859	1,188,859	1,732,088	(133,240)	(56,140)	(512,032)	(21,330)
Treatment & Transportation	-	-	-	-	5,429	5,301	5,301	5,301	-	-	-	(5,429)	(128)
Miscellaneous Operating Expenses	54,117	51,255	60,381	60,381	594,003	461,295	531,842	531,842	615,066	(2,862)	6,264	(132,708)	(62,161)
Depreciation & Amortization	450,000	450,000	441,114	4,050,000	4,050,000	4,050,000	3,970,026	3,970,026	5,400,000	-	-	(8,886)	(29,974)
Total Operating Expenses	2,067,848	1,650,428	1,722,023	1,722,023	15,788,870	15,113,814	15,408,922	15,408,922	21,189,118	(417,420)	(345,825)	(675,056)	(379,948)
OPERATING INCOME (LOSS)	851,394	1,084,690	1,019,194	1,019,194	7,784,747	8,855,787	6,469,562	6,469,562	10,642,901	(233,296)	(167,800)	(1,071,040)	1,315,185
NON-OPERATING REVENUES (EXPENSES)													
Water Tapping Fees	50,784	11,500	2,322	2,322	189,403	103,500	9,830	9,830	138,000	39,284	48,462	85,903	179,574
VW Capacity & Connection Fees	40,989	6,250	-	-	148,498	56,250	22,749	22,749	75,000	34,739	40,989	92,248	125,749
Meter Sales	3,099	1,417	-	-	11,360	12,753	22,481	22,481	17,000	1,682	3,099	(1,393)	(11,121)
Inspection & Plan Reviews	6,265	2,250	2,468	2,468	27,072	20,250	10,523	10,523	27,000	4,015	3,797	6,822	16,550
Other Non-Operating Income	5,887	1,667	3,270	3,270	41,244	15,003	3,270	3,270	20,000	4,220	2,617	26,241	37,974
Other Non-Operating Expenses	(515,151)	(512,181)	2,970	2,970	(3,053,425)	(3,045,625)	2,970	2,970	-	(2,970)	(518,121)	(7,800)	(3,056,395)
Total Non-Operating Income (Expenses)	(408,127)	(489,097)	11,030	11,030	(2,635,847)	(2,837,869)	71,823	71,823	277,000	80,970	(419,157)	202,022	(2,707,670)
INCREASE (DECREASE) IN NET POSITION BEFORE INTEREST AND CAPITAL CONTRIBUTIONS	443,267	595,593	1,030,224	1,030,224	5,148,899	6,017,918	6,541,385	6,541,385	10,919,901	(152,325)	(586,957)	(869,018)	(1,392,485)
INTEREST INCOME (EXPENSES)													
Interest Income	471	35,833	455	455	204,176	322,497	288,312	288,312	430,000	(35,362)	16	(118,321)	(84,136)
Interest Expense	(1,315,458)	(1,315,458)	(1,001,195)	(1,001,195)	(11,839,122)	(11,839,122)	(9,010,755)	(9,010,755)	(15,785,500)	-	(314,263)	-	(2,828,367)
Total Interest Income (Expenses)	(1,314,987)	(1,279,625)	(1,000,740)	(1,000,740)	(11,634,946)	(11,516,625)	(8,722,443)	(8,722,443)	(15,355,500)	(35,362)	(314,247)	(118,321)	(2,912,503)
CAPITAL CONTRIBUTIONS													
Capital Grants	-	-	-	-	-	-	-	-	-	-	-	-	-
Capital Assets Provided	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Capital Contributions	-	-	-	-	-	-	-	-	-	-	-	-	-
INCREASE (DECREASE) IN NET POSITION	(871,720)	(684,032)	29,485	29,485	(6,486,046)	(5,498,707)	(2,181,058)	(2,181,058)	(4,435,599)	(187,687)	(901,204)	(987,339)	(4,304,988)
CAPITAL EXPENDITURES													
LCA Costs (1)	(152,662)	(1,391,425)	(84,252)	(84,252)	(5,901,576)	(12,522,825)	(831,010)	(831,010)	(16,697,100)	1,238,763	(68,410)	6,621,249	(5,070,566)
Contractor/Other Costs (1)	(2,294,222)	-	(982,762)	(982,762)	(4,100,794)	-	(5,115,250)	(5,115,250)	-	(2,294,222)	(1,311,460)	(4,100,794)	1,014,456
Total Capital Expenditures	(2,446,884)	(1,391,425)	(1,067,015)	(1,067,015)	(10,002,370)	(12,522,825)	(5,946,260)	(5,946,260)	(16,697,100)	(1,055,459)	(1,379,869)	2,520,455	(4,056,110)
PRINCIPAL REDUCTION	-	-	-	-	-	-	-	-	-	-	-	-	-
KEY METRICS													
Operating Income (Expense) Before Depreciation	1,301,394	1,534,690	1,460,308	1,460,308	11,834,747	12,905,787	10,438,588	10,438,588	16,042,901	-	-	-	-
Operating Income (Expense) Before Depreciation / Operating Revenues (%)	44.6%	56.1%	53.3%	53.3%	50.2%	53.8%	47.7%	47.7%	50.4%	-	-	-	-
Operating Income (Expense) / Operating Revenues (%)	29.2%	39.7%	37.2%	37.2%	33.0%	36.9%	29.6%	29.6%	33.4%	-	-	-	-

B. Suburban

LEHIGH COUNTY AUTHORITY STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION SUBURBAN DIVISION													
	Sep-2016				2016 YTD				Annual Budget	Month Variance to		YTD Variance to	
	Actual	Forecast	Budget	Prior Yr	Actual	Forecast	Budget	Prior Yr		Forecast	Prior Yr	Forecast	Prior Yr
OPERATING REVENUES													
Charges for Service	2,318,578	1,931,000	3,120,731	2,130,546	19,729,629	18,988,000	18,703,380	19,305,132	24,301,607	387,578	(802,153)	188,031	741,629
Rent	7,938	15,000	14,917	9,585	75,633	95,000	134,253	96,598	179,004	(7,062)	(6,979)	(1,647)	(20,367)
Other Income	6,513	51,000	50,799	12,489	187,237	288,000	457,191	453,808	609,592	(44,487)	(44,286)	(5,976)	(101,763)
Total Operating Income	2,333,029	1,997,000	3,186,447	2,152,621	19,992,499	19,373,000	19,294,834	19,855,538	25,090,203	336,029	(853,418)	180,408	619,499
OPERATING EXPENSES													
Salaries, Wages, and Benefits	303,661	215,000	183,985	239,675	2,091,548	2,035,000	1,747,856	1,814,754	2,391,801	(88,661)	(119,676)	(63,987)	(56,548)
General & Administrative	11,358	20,000	19,530	9,958	203,552	192,000	175,770	205,138	234,354	8,642	8,172	(1,401)	(11,552)
Utilities	61,741	54,000	64,259	58,222	523,253	519,000	578,331	535,029	771,112	(7,741)	2,518	(3,519)	(4,253)
Materials & Supplies	129,790	111,000	260,633	238,353	779,402	731,000	1,503,246	1,366,003	2,029,580	(18,790)	130,843	108,563	(48,402)
Miscellaneous Services	698,404	850,000	666,383	702,718	6,666,675	7,051,000	5,997,447	5,448,244	7,996,600	151,596	(32,021)	4,315	384,325
Treatment & Transportation	547,212	465,000	450,321	457,307	4,755,219	4,298,000	4,022,267	3,978,445	5,331,851	(82,212)	(96,891)	(89,905)	(457,219)
Depreciation & Amortization	580,745	573,000	572,926	591,210	5,164,089	5,157,000	5,156,334	5,320,890	6,875,111	(7,745)	(7,819)	10,465	(7,089)
Total Operating Expenses	2,332,911	2,288,000	2,218,037	2,297,442	20,183,738	19,983,000	19,181,251	18,668,504	25,630,419	(44,911)	(114,874)	(35,468)	(200,738)
OPERATING INCOME (LOSS)	118	(291,000)	968,410	(144,821)	(191,239)	(610,000)	113,583	1,187,035	(540,216)	291,118	(968,292)	144,940	418,761
NONOPERATING REVENUES (EXPENSES)													
Tapping and Capital Recovery Fees	82,896	100,000	112,415	409,563	1,410,387	1,171,000	1,011,735	1,782,673	1,348,980	(17,104)	(29,519)	(326,667)	239,387
Meter Sales	5,172	10,000	6,250	7,884	129,498	121,000	56,250	69,348	75,000	(4,828)	(1,078)	(6,348)	60,150
Inspection & Plan Reviews	5,179	10,000	8,000	42,816	69,891	64,000	72,000	163,112	96,000	(4,821)	(2,821)	(37,637)	5,891
Other Income	30,584	6,000	458	3,745	86,669	69,000	4,122	27,196	5,500	24,584	30,126	26,839	17,669
Other Expense	(219)	-	(583)	(220)	(6,051)	(5,000)	(5,247)	(44,399)	(7,000)	(219)	364	1	(1,051)
Interest Earnings	5,749	20,000	3,152	2,977	49,757	109,000	28,368	25,526	37,826	(14,251)	2,597	2,771	(59,243)
Interest Expense	(104,289)	(105,000)	(139,076)	(110,501)	(940,720)	(942,000)	(1,251,684)	(1,028,887)	(1,668,907)	711	34,787	6,212	1,280
Total Nonoperating Expenses	25,072	41,000	(8,395)	356,265	799,431	587,000	(84,459)	974,970	(112,601)	(15,929)	34,456	(331,162)	212,431
INCREASE (DECREASE) IN NET POSITION BEFORE CAPITAL CONTRIBUTIONS	25,191	(250,000)	959,026	211,443	608,192	(23,000)	29,127	2,161,604	(652,817)	275,191	(933,835)	(186,253)	631,192
CAPITAL CONTRIBUTIONS													
Capital Grant	-	-	-	-	-	-	-	-	75,000	-	-	-	-
Capital Assets Provided By Developers and Others	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Capital Contributions	-	-	-	-	-	-	-	-	75,000	-	-	-	-
INCREASE (DECREASE) IN NET POSITION	25,191	(250,000)	959,026	211,443	608,192	(23,000)	29,127	2,161,604	(577,817)	275,191	(933,835)	(186,253)	631,192

LEHIGH COUNTY AUTHORITY COMPARATIVE STATEMENT FORMAT SUBURBAN DIVISION													
	Sep-2016				2016 YTD				Annual Budget	Month Variance to		YTD Variance to	
	Actual	Budget	Prior Yr		Actual	Budget	Prior Yr			Budget	Prior Yr	Budget	Prior Yr
OPERATING REVENUES													
Customer Charges	2,318,578	3,120,731	2,130,546		19,729,629	18,703,380	19,305,132		24,301,607	(802,153)	188,031	1,026,239	424,496
Rental Income	7,938	14,917	9,585		75,633	134,253	96,598		179,004	(1,647)	(6,979)	(58,620)	(20,965)
Other Operating Income	6,513	50,799	12,489		187,237	457,191	453,808		609,592	(44,286)	(5,976)	(269,954)	(266,571)
Total Operating Revenues	2,333,029	3,186,447	2,152,621		19,992,499	19,294,834	19,855,538		25,090,203	(853,418)	180,408	697,665	136,961
OPERATING EXPENSES													
Salaries & Wages	209,436	130,930	155,165		1,386,473	1,243,834	1,220,646		1,702,085	(78,506)	(54,271)	(142,639)	(165,827)
Overtime	22,501	8,508	12,346		115,199	80,826	86,207		110,607	(13,993)	(10,156)	(34,373)	(29,992)
Employee Benefits	71,724	44,547	72,164		589,877	423,195	507,901		579,108	(27,177)	440	(166,681)	(81,976)
Utilities	61,741	64,259	58,222		523,253	578,331	535,029		771,112	2,518	(3,519)	55,078	11,777
Insurance	8,058	16,563	8,424		176,721	149,067	190,495		198,751	8,505	366	(27,654)	13,773
Maintenance	50,435	116,241	200,613		312,261	670,439	914,084		905,190	65,806	150,178	358,178	601,823
Engineering	44,378	23,821	10,779		107,382	137,391	33,260		185,500	(20,557)	(33,599)	30,009	(74,123)
Legal	3,300	2,967	1,534		26,830	26,703	14,643		35,604	(333)	(1,786)	(127)	(12,187)
Lab Analysis	11,449	19,313	7,472		57,028	111,394	83,182		150,380	7,864	(3,977)	54,368	25,154
Supplies & Equipment	23,527	101,258	19,488		302,731	584,022	335,478		768,511	77,731	(4,039)	281,291	32,746
Other Outside Services	666,007	630,960	669,615		6,437,027	5,678,640	5,222,810		7,571,523	(35,047)	3,608	(758,387)	(1,214,217)
Treatment & Transportation	547,212	450,321	457,307		4,755,219	4,022,267	3,978,445		5,331,851	(96,891)	(89,905)	(732,952)	(776,774)
Miscellaneous Operating Expenses	32,397	35,423	33,103		229,647	318,807	225,434		425,076	3,026	707	89,160	(4,214)
Depreciation & Amortization	580,745	572,926	591,210		5,164,089	5,156,334	5,320,890		6,875,111	(7,819)	10,465	(7,755)	156,801
Total Operating Expenses	2,332,911	2,218,037	2,297,442		20,183,738	19,181,251	18,668,504		25,630,419	(114,874)	(35,468)	(1,002,487)	(1,515,234)
OPERATING INCOME (LOSS)	118	968,410	(144,821)		(191,239)	113,583	1,187,035		(540,216)	(968,292)	144,940	(304,822)	(1,378,273)
NON-OPERATING REVENUES (EXPENSES)													
Water Tapping Fees	8,965	16,165	27,310		269,540	145,485	208,220		193,980	(7,200)	(18,345)	124,055	61,320
WW Capacity & Capital Recovery Fees	73,931	96,250	382,253		1,140,847	866,250	1,554,453		1,155,000	(22,319)	(308,322)	274,597	(413,606)
Meter Sales	5,172	6,250	7,884		129,498	56,250	69,348		75,000	(1,078)	(2,712)	73,248	60,150
Inspection & Plan Reviews	5,179	8,000	42,816		69,891	72,000	163,112		96,000	(2,821)	(37,637)	(2,109)	(93,221)
Other Non-Operating Income	30,584	458	3,745		86,669	4,122	27,196		5,500	30,126	26,839	82,547	59,473
Other Non-Operating Expense	(219)	(583)	(220)		(6,051)	(5,247)	(44,399)		(7,000)	364	1	(804)	38,348
Total Non-Operating Income (Expenses)	123,613	126,540	463,788		1,690,394	1,138,860	1,977,930		1,518,480	(2,927)	(340,176)	551,534	(287,537)
INCREASE (DECREASE) IN NET POSITION BEFORE INTEREST AND CAPITAL CONTRIBUTIONS	123,731	1,094,950	318,967		1,499,155	1,252,443	3,164,965		978,264	(971,219)	(195,236)	246,712	(1,665,810)
INTEREST INCOME (EXPENSES)													
Interest Income	5,749	3,152	2,977		49,757	28,368	25,526		37,826	2,597	2,771	21,389	24,231
Interest Expense	(104,289)	(139,076)	(110,501)		(940,720)	(1,251,684)	(1,028,887)		(1,668,907)	34,787	6,212	310,964	88,167
Total Interest Income (Expenses)	(98,540)	(135,924)	(107,524)		(890,963)	(1,223,316)	(1,003,361)		(1,631,081)	37,384	8,983	332,353	112,398
CAPITAL CONTRIBUTIONS													
Capital Grants	-	-	-		-	-	-		75,000	-	-	-	-
Capital Assets Provided	-	-	-		-	-	-		-	-	-	-	-
Total Capital Contributions	-	-	-		-	-	-		75,000	-	-	-	-
INCREASE (DECREASE) IN NET POSITION	25,191	959,026	211,443		608,192	29,127	2,161,604		(577,817)	(933,835)	(186,253)	579,065	(1,553,412)
CAPITAL EXPENDITURES													
LCA Costs (1)	(73,566)	(998,023)	(69,194)		(524,820)	(8,982,207)	(561,116)		(11,976,270)	924,457	(4,372)	8,457,387	36,297
Contractor/Other Costs (1)	(512,310)	-	(149,950)		(2,105,518)	-	(1,373,779)		-	(512,310)	(362,360)	(2,105,518)	(731,738)
Total Capital Expenditures	(585,876)	(998,023)	(219,144)		(2,630,338)	(8,982,207)	(1,934,896)		(11,976,270)	412,147	(366,732)	6,351,869	(695,442)
PRINCIPAL REDUCTION	(210,071)	(152,405)	(162,742)		(1,989,541)	(1,371,645)	(1,746,952)		(1,828,859)	(57,666)	(47,328)	(617,896)	(242,590)
KEY METRICS													
Operating Income (Expense) Before Depreciation	580,863	1,541,336	446,389		4,972,850	5,269,917	6,507,925		6,334,895				
Operating Income (Expense) Before Depreciation / Operating Revenues (%)	24.9%	48.4%	20.7%		24.9%	27.3%	32.8%		25.2%				
Operating Income (Expense) / Operating Revenues (%)	0.0%	30.4%	-6.7%		-1.0%	0.6%	6.0%		-2.2%				
Net Position Before Interest & Capital Contrib. / Operating Revenue (%)	5.3%	34.4%	14.8%		7.5%	6.5%	15.9%		3.9%				
Interest Coverage Ratio	1.242	7.896	2.913		1.647	1.023	3.101		0.609				
Debt Service Coverage Ratio	0.412	3.767	1.178		0.529	0.488	1.149		0.290				
Debt Service Coverage Ratio (excluding depreciation)	2.259	5.733	3.342		2.291	2.454	3.066		2.256				

(1) Capital costs budgeted as total LCA and Contractor Costs

<p>Lehigh County Authority</p> <p>System Operations Review - September 2016</p> <p>Presented: October 24, 2016</p>
--

<p>Lehigh County Authority</p> <p>System Operations Review - September 2016</p> <p>Presented: October 24, 2016</p>
--

<p>Lehigh County Authority</p> <p>System Operations Review - September 2016</p> <p>Presented: October 24, 2016</p>
--

Critical Activities	System	Description	Sep-16	2016-to-Date	2015 Totals	Permit
			Daily Avg (MGD)	Daily Avg (MGD)	Daily Avg (MGD)	Daily Max (MGD)
Water Production	Allentown	Total	21.46	20.67	19.99	39.0
		Schantz Spring	5.37	6.07	6.16	9.0
		Crystal Spring	3.87	3.86	3.88	4.0
		Little Lehigh Creek	11.94	10.56	9.85	30.0
		Lehigh River	0.28	0.19	0.10	28.0
	Central Lehigh	Total	9.63	9.46	9.08	19.04 MGD Avg
		Feed from Allentown	5.81	6.02	4.95	6.0 MGD Avg 10.5 MGD Max
		Well Production (CLD)	3.82	3.45	4.13	8.54 MGD Avg
		Sum of all (12) other Suburban Water Systems	0.19	0.18	0.17	1.71 Sum of all wells
Wastewater Treatment		Kline's Island	28.25	30.17	30.44	40.0
		Pretreatment Plant	4.33	4.44	4.34	5.75 (design capacity)
		Sum of all (5) other Suburban WW Systems	0.15	0.18	0.21	0.36
			Sep-16	2016-to-Date	2015 Totals	
Precipitation Totals (inches)			3.42	29.83	40.24	
Compliance Reports Submitted to Allentown			19	206	246	
Notices of Violation (NOVs)		(Allentown + Suburban)	0	3	3	
Sanitary Sewer Overflows (SSOs)/Bypasses		(Allentown + Suburban)	0	14	13	
Main Breaks Repaired		Allentown	0	14	29	
		Suburban	1	6	12	
Customer Service Phone Inquiries		(Allentown + Suburban)	2,225	21,868	35,983	
Water Shutoffs for Non-Payment		(Allentown + Suburban)	249	1,246	1,844	
Injury Accidents		(Allentown + Suburban)	0	7	9	
Emergency Declarations		Allentown	(1) @ \$27,679	(1) @ \$27,679		
		Suburban	(1) @ \$33,495	(1) @ \$33,495		

Significant Repairs:

The secondary digester cover at KIIWWTP has been removed and a new cover is being erected. Completion is expected by the beginning of November, 2016. Remediation has begun at the Arcadia WWTP in an effort to address poor plant performance during cold weather. New equipment includes aeration basin covers and immersion heaters.

Description of NOVs and/or SSOs:

There were no SSOs or NOV's in the suburban or city systems during September 2016.

Other Highlights:

Lehigh County remains in a Drought Watch along with (37) other counties in PA, as well as Potter County that is under a Drought Warning. Current status of LCA ground water and surface water supplies, in addition to local monitoring wells, are being checked routinely. Weekly and monthly monitoring reports are being posted on the LCA website.