



## LEHIGH COUNTY AUTHORITY

October 24, 2011

### BOARD MEETING AGENDA

1. Call to Order
2. Review of Agenda
  - *Public Participation Sign-In Request*
3. Executive Sessions
4. Approval of Minutes
  - *September 19, 2011 Regular Meeting Minutes*
5. Public Comments
6. Action / Discussion Items

#### **FINANCE AND ADMINISTRATION**

- *Personnel Study Consultant Selection (Approval)*
- *2012-2021 Capital Plan (Approval)*
- *2012 Budget Assumptions (Review)*

#### **WATER**

- *None*

#### **WASTEWATER**

- *Boston Beer Company Agreement (Approval)*
  - *2012 WLI User Fee Report (Approval)*
  - *LCA WTP- Truck Waste Receiving Station & Digester Mixer Replacement (Approval)*
  - *Signatory I & I Investigation and Remediation – 2011/2012 Program Management (Approval)*
  - *Park Pump Station Upgrades (Approval)*
  - *WLI Physical Condition Assessment (Approval)*
7. System Operations Overview
  8. Staff Comments
  9. Solicitor's Comments
  10. Other Comments
  11. Adjournment

#### **NOVEMBER MEETINGS**

Workshop Meeting  
Board Meeting

November 7 – 12:00 p.m.  
November 21 – 12:00 p.m.

#### **PUBLIC PARTICIPATION POLICY**

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

**REGULAR MEETING MINUTES**  
**September 19, 2011**

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The Regular Meeting of the Lehigh County Authority was called to order at 12:19 p.m. on Monday, September 19, 2011, Vice Chairman Tom Muller presiding. Other Members present at the commencement of the meeting were: Richard Bohner, Brian Nagle, Scott Bieber and Norma Cusick. Authority Staff present were: Aurel Arndt, Bradford Landon, Pat Mandes, Frank Leist, Douglas Young, Joseph McMahon, Liesel Adam, and Cristin Keppel.

Member of the public, Jeanine Bauer was also in attendance.

**REVIEW OF AGENDA**

Mr. Arndt stated there would be a two additional items following the regular agenda. He also stated that the Wastewater Action item will be moved to the next meeting because details for that project need to be finalized.

**EXECUTIVE SESSION**

Mr. Arndt stated there will be an executive session to address legal items.

**APPROVAL OF MINUTES**

**August 22, 2011 Regular Meeting Minutes**

On a motion by Mr. Nagle, seconded by Ms. Cusick, the Board unanimously approved the minutes of the August 22, 2011 Regular Meeting, as amended (4-0). Mr. Bohner abstained from voting due to his absence at the subject meeting.

**PUBLIC COMMENTS**

None.

**ACTION AND DISCUSSION ITEMS**

**Budget Amendment** (Approval)

Mr. Young explained an addition to the 2011 Budget is required for an actuarial study for the Authority's Other Post-Employment Benefits obligation; due to oversight, the study was not budgeted for 2011.

On a motion by Mr. Bohner, seconded by Mr. Nagle, the Board unanimously approved a Budget Amendment for Actuarial Services in the amount of \$4,150 (5-0).

**Preliminary Capital Plan 2012-2021 (Plan)** (Acceptance)

Mr. Young addressed the attached presentation and the previously distributed Capital Plan. He highlighted current and projected growth, wastewater capacity, debt, and the cost comparison with the 2011-2020 Capital Plan.

Mr. Leist then discussed some major Administrative projects including the GIS upgrades, IT Master Plan and Document Management. Mr. Young provided the financial justification for these projects.

Mr. Leist explained some major Water projects including the Crestwood Alternate Water Supply, CLD Auxiliary Pump Station & Main Extension, Schantz Spring Rd. to Minesite Rd. Main Extension, and Rt. 309 Crossing & Main Extension @ Education Park Drive. He also highlighted some revised projects. Mr. Young then provided the financial justification for the Water projects.

Mr. Leist then explained new and major Wastewater projects which include: LCA-WTP Biogas Energy Related Improvements, Spring Creek Pump Station Upgrades, Western Lehigh Interceptor Rehabilitation, Central Lehigh County Wastewater Capacity Planning/Expansion, Park Pump Station Renovations and Upgrades, Park Pump Station Force Main Upgrade, Signatory I & I Investigation and Remediation Program, Lynn Township WTP Expansion, Vera Cruz Sanitary Sewer Project, Jordan Creek Wastewater System, and Western Weisenberg Township Wastewater Treatment Plant. Mr. Young provided a financial justification for Wastewater projects.

Messrs. Young and Leist addressed various questions regarding the details of the Plan.

Mr. Young noted the Board approval will be sought after the Lehigh Valley Planning Commission and Lehigh County Commissioners provides their comments on the plan.

### **Personnel Study**

Mr. Young referred to the attached scope of work for the Personnel Study that the Authority performs every few years. He noted that the scope includes an update to Authority pay classifications and a salary survey. Mr. Young also noted that the Knowledge Management Study recommendations will be included in this study which includes consideration of possibly "broad banding" certain positions for the Operations and Accounting departments. He explained that a small benefits survey update and streamlined review of all Authority job descriptions will be done as well. Mr. Young noted that an RFP was sent out and recommendation for an award will be made at the October Board meeting. Some discussion followed.

### **SYSTEM OPERATIONS OVERVIEW**

Mr. McMahon gave a presentation (attached, Presentation 2) regarding preparations and aftermath of Hurricane Irene on the weekend of August 27-28, 2011

Mr. Nagle asked if any of the Capital Plan projects were a result of damages incurred by the storm.

Mr. McMahon stated that Project W-19, regarding emergency generators for more systems, is a result of the lack of emergency power available during the storm. He noted that most other damages were able to be repaired by Operations staff.

### **STAFF COMMENTS**

#### **Malcolm Pirnie PSA Amendment** (Approval)

Ms. Mandes noted that additional funds are needed for Malcolm Pirnie, Inc to continue consultant services for the Wastewater Capacity Planning project. She requested approval for Malcolm Pirnie to complete engineering tasks or assistance as required during 2011 associated with the Wastewater Capacity Program.

On a motion from Mr. Bohner, seconded by Mr. Nagle, the unanimously approved a professional services authorization in the amount of \$15,000 for Malcolm Pirnie, Inc. for on-call services (5-0).

### **SOLICITOR'S COMMENTS**

None.

### **OTHER COMMENTS**

None.

**EXECUTIVE SESSION**

The Vice Chairman called for an Executive session at 2:12 p.m. to discuss legal matters.

Ms. Bauer left the meeting at 2:12 p.m.

The session ended at 2:32 p.m.

**ADJOURNMENT**

There being no further business, the Vice Chairman adjourned the meeting at 2:33 p.m.

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Richard H. Bohner  
Secretary

## **FINANCE & ADMINISTRATION**

### **ACTION ITEMS**

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1. **Personnel Study Consultant Selection** (Approval)

Recommendations for hiring a consultant may be made at the Board Meeting.

2. **2012 – 2021 Capital Plan Approval** (Approval)

After a presentation was made to the Lehigh County Commissioners the Capital Plan was approved. We recommended that the Authority formally approve the Capital Plan.

### **DISCUSSION ITEMS**

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1. **2012 Budget Assumptions**

Attached 2012 Budget Assumption will be discussed at the Board Meeting. **(Purple)**

### **INFORMATION ITEMS**

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

Fund	Bank	Location	Gross Amount	Date of Purchase	Date Due	Net Rate %
Cons Wtr (2)	Banco Popular	Hato, PR	140,000.00	9/21/11	9/23/13	1.000
Cons Wtr (2)	Farmers Bank	Ault, Co	235,000.00	9/27/11	9/27/12	0.350
Cons Wtr (2)	Bank Leumi	NY, NY	235,000.00	9/28/11	1/4/13	0.400

Fund Descriptions for Investments:

Cons Wtr (2)

Consolidated Water 2

2. **Customer Growth**

Continued on next page.

**Customer Growth**

Figures for customer growth through September 2011 are indicated below:

	As of 12/31/10	As of 9/30/11	2011 Additions	2011 Projections	2010 Additions
<b><u>Water</u></b>					
<u>Central Lehigh (A)</u>					
Residential	16,720	16,956	236	315	488
Commercial/Industrial	593	596	3	11	15
<u>Emmaus</u>					
Residential	409	409	-	1	1
Commercial/Industrial	9	9	-	-	-
<u>North Whitehall</u>					
Residential	1,078	1,083	5	4	3
Commercial/Industrial	53	53	-	2	-
<u>Washington Twp</u>					
Residential	425	430	5	3	2
Commercial/Industrial	15	15	-	-	-
<u>Northampton County SA</u>					
Residential	67	67	-	-	-
<u>Lynn Twp</u>					
Residential	176	176	-	-	116
<u>Heidelberg Htgs</u>					
Residential	191	191	-	-	-
<u>Beverly Hills</u>					
Residential	44	44	-	-	-
<b>Total Water</b>	<b>19,780</b>	<b>20,029</b>	<b>249</b>	<b>336</b>	<b>625</b>
<b><u>Wastewater</u></b>					
<u>Upper Milford</u>					
Residential	460	471	11	154	8
Commercial/Industrial	31	31	-	25	-
<u>Weisenberg Twp</u>					
Residential	146	146	-	-	-
Commercial/Industrial	14	14	-	-	3
<u>Heidelberg Heights</u>					
Residential	145	145	-	-	-
<u>North Whitehall Twp</u>					
Residential	465	465	-	-	-
Commercial/Industrial	11	11	-	-	-
<u>Washington Twp</u>					
Residential	551	553	2	-	2
Commercial/Industrial	24	24	-	-	-
<u>WTP Direct Customer</u>					
Commercial/Industrial	1	1	-	-	1
<b>Total Wastewater</b>	<b>1,848</b>	<b>1,861</b>	<b>13</b>	<b>179</b>	<b>13</b>
<b>Wastewater Allocation (gals) *</b>	<b>10,628,272</b>	<b>10,655,617</b>	<b>27,345</b>	<b>120,865</b>	<b>135,269</b>

\* Additions include allocation purchased net of allocation returned (850 gals) to the general pool.

(A) Includes Upper Milford Divisions, Arcadia and Buss Acres systems.

## **WATER**

### **ACTION ITEMS**

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1. *None.*

### **DISCUSSION ITEMS**

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1. *None.*

### **INFORMATION ITEMS**

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1. **Water Meter Replacement Project**

Phase 1 - Final payment was made to Vanguard. This phase of the project has been completed.

Phase 2 - TSE, Inc. has replaced approximately 830 out of 3,300 aging meters, radio-read units and backflow preventers through the end of September. Substantial completion is scheduled for April 20, 2012.

2. **Interconnection with Allentown**

Phase 2 - Connection to City Transmission System at 26<sup>th</sup> and Chew Streets – Livengood is working in the Lehigh County park west of Route 309. He also wants to complete the bored crossings under Rt. 309 and Cedar Crest Boulevard. When those areas are completed, he will remobilize to the eastern end of the project, make the connection to the City water system, and begin working west. Although the City of Allentown has not yet signed the easement agreements, we are working with the City Public Works staff to occupy the easement areas, since they have been approved by the City Solicitor's office.

3. **Water Main Replacement Project 2011 – Oakland Park (UMT)**

Due to changes in the NPDES permit requirements effective as of 2011, this project will require that we complete an E&S plan for review by the Lehigh County Conservation District. Since a NPDES permit is required we anticipate a spring 2012 start date.

We are adding to the project a section of water main along Highland Court in the Clearview Manor development in LMT. This 845' section has experienced 3 main breaks in the last year and a half. Prices for survey work have been solicited and survey work for this area is expected to begin in September. As this area is not contiguous with the rest of the project, it will not need to be included in any NPDES permit submittals.

4. **Water Main Relocation Project – Slatedale**

Our water facilities on West Grant Street were successfully relocated in June. Work on Main Street has been scheduled for 2012. Our exposure, by PennDOT Agreement, is about \$25,000.

5. **Arcadia West Pumping Station Modifications**

Eight firms attended the mandatory open house held on September 28 and are eligible to submit a proposal for design, permitting and construction-related engineering services for improvements to the pumping station. Proposals will be received on October 18.

6. **Developments**

Water system construction is occurring at the following developments:

Trexler Fields, Phases 2/3/7, 38 residential lot, UMT

Valley West Estates, Phases 4, 5 & 6, 46 residential lots (sfd), UMT *(There has not been any construction activity at this development in over a year.)*

Water system plans are being reviewed for the following developments:

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

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

Hamilton Crossings, 3 commercial lots, LMT

Hickory Park Estates, 3 residential lots (sfd), UMT

Hillview Farms, 31 residential lots (sfd), LMT/SWT

Indian Creek Industrial Park, 6 commercial lots, UMT, water and sewer

Lehigh Hills, 247 residential lots (sfa/sfd), UMT

Morgan Hills, 40 residential lots (sfd), Water & Sewer, WeisT

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

Rabenold Farms, 205 residential lots (sfd), (Portion south of I-78), UMT

Rabenold Farms II, 288 apartment units and clubhouse, (Portion north of I-78), UMT

Red Maple Acres Expansion, 29 units, LMT

Shepherd's Corner, 1 commercial lot, LMT

Spring Creek Properties Subdivision 1, 14 commercial and industrial lots, LMT

Trexler Business Center, Lot 1, 1 commercial building, LMT

Trexler Senior Living Center, 2 commercial lots, LMT *(In bankruptcy)*

Weilers Road Twins, 82 residential lots (sfa), UMT

West Hills Business Center, 8 industrial lots, WeisT

Woodmere Estates, 60 residential units (sfd), UMT

Wotring North Development, 20 residential units (sfd), UMT



## WASTEWATER

### ACTION ITEMS

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

An Amendment to the Diageo Agreement will be presented to the Board in October for approval. The Amendment provides a new method for generating Boston Beer's annual rates. The annual rate will be adjusted to cover the LCA Pretreatment Plant expenses during the year plus 8% coverage including a Working Capital Reserve as calculated by a model.

2. **2012 WLI User Fee Report** (Approval)

The WLI User Rates will be presented to the Board in October for approval.

3. **LCA WTP- Truck Waste Receiving Station & Digester Mixer Replacement** (Approval)

The WTP Energy Audit/Bioenergy Recovery Evaluation among other things recommended the construction of a Combined Heat & Power (CHP) Generating system providing approximately 300 cfm of biogas can be produced at the WTP, which is estimated to be capable of producing ~75% of the WTP electric power needs. Current biogas production is ~150-200 cfm and to achieve the 300cfm it will be necessary to construct a Truck Waste Receiving Station that will facilitate the introduction of high strength liquid waste directly into the digesters, thereby increasing biogas production and reducing the amount of high purity oxygen generated and the associated electrical demand; and replacing the inefficient digester mixing system which will increase biogas production and reducing the amount of solids that have to be land applied and the associated disposal costs. Approval for the design phase of the projects other than the CHP System is being requested at the October Board meeting. Reference the attached, Project Memo, Capital Project and Professional Services Authorizations (**Blue**).

4. **Signatory I&I Investigation and Remediation – 2011/2012 Program Management** (Approval)

A Professional Services Authorization and Capital Project Amendment is being presented to the Board for consideration for Malcolm Pirnie for work related to the I & I SCARP Program. The work includes Program Management for the remainder of 2011 and 2012. Attached is, Professional Services Authorization and Capital Project Amendment.

5. **Park Pump Station Upgrades** (Approval)

Staff has solicited proposals from 5 engineering firms to design, permit and place to bid two portions of the upgrades necessary at the Park Pump Station. Four proposals were received. Project authorization for both phases of the work will be requested at the October Board Meeting. Recommendation memorandum and backup documentation are attached. (**Grey**)

The existing hydraulic activated comminutor is to be replaced with a new, electric comminutor. In addition, the previous underground 8,000 gallon fuel storage tank will be replaced with an above ground unit and screening wall. Proposals are expected by September 30, with award of the work occurring in October.

6. **WLI Physical Condition Assessment** (Approval)

A Professional Services Authorization for Malcolm Pirnie is being presented to the Board for consideration. The work is for a physical condition assessment of the Swabia Creek (Alburtis/Macungie) branch of the WLI from manhole LCA-90 to LCA-182. The assessment will include CCTV inspection, report of the findings, recommended follow-up actions and a meeting to review the findings. The Physical Condition Assessment Program began in 2004. To date, approximately 58,000 linear feet of the WLI has been completed. Additional sections of the WLI will be completed in the future. It is important

for LCA to inspect the WLI sewers as part of the I & I SCARP program in order to make any corrections that may be causing extraneous flows into the system.

## DISCUSSION ITEMS

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1. *None.*

## INFORMATION ITEMS

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### 1. **Vera Cruz Area Sewer Project**

Work continues, with directional boring activity in Main Road East. As of the end of September, over 19,000 feet of the anticipated 28,000 of low pressure force main has been installed. Grinder pump deliveries have started for the 80 customers in Milestone #1 Area. The official "Notice to Connect" is expected to go out to these property owners in late October. Substantial Completion and Final Completion are presently January 29, 2012 and March 29, 2012, respectively.

### 2. **Infiltration and Inflow (I&I) Program Update**

The 537 Plan revisions and SCARP submitted to the DEP in March of 2010 were approved in June including the revision to Chapter 4. Letters from LCA are now required to accompany signed planning modules indicating that conveyance capacity must be available before a connection to the sanitary sewer is made.

The WLI Optimization Study field trials were completed in July. A workshop was completed to review the field study findings and the wet weather operating logic.

A meeting was held with the Engineer's group in September to review the upcoming activities and prepare the Signatories for I & I related work in 2012.

The City of Allentown has hired a consultant for I & I work in its system.

### 3. **Wastewater Treatment Capacity**

In October, the WLI Advisory Committee will provide input into the Project Findings Report (triple bottom line analysis) which reviews factors other than costs related to each option. The Steering Committee will also provide similar input at the next scheduled Committee meeting.

A Steering Committee meeting was held on September 16<sup>th</sup> to update the Committee on the various activities that have taken place since the Committee last met. Updates were provided on the DRBC effluent standards, cost estimates, and short term allocation leasing. Attendance at the meeting by the Committee members was low.

An RFP for completing the Act 537 Planning has been prepared by Malcolm Pirnie. It is expected that the RFP will be issued after the final Steering Committee meeting.

Talks with Coplay-Whitehall Sewer Authority and Salisbury Townships may result in the sale and/or lease of allocation. An offer will be presented to them for consideration.

### 4. **Arcadia West Wastewater Treatment Plant Upgrade**

Bids were received on March 17 for the General Construction, Electrical Construction and Mechanical and Plumbing Construction contracts. Discussion with PennVEST on the acceptability of the "or equal" provisions of the bid documents continue. If those discussions do not produce a resolution of the concern, the contracts will need to be rebid.

### 5. **Northern Lehigh Wastewater System**

The project is proceeding in a number of areas:

Wastewater Treatment Plant (on a 5 acre tract at Kids Peace)

1. A Special Exception must be granted by the Zoning Hearing Board for the proposed property use. The hearing before the Zoning Hearing Board began on May 18, was continued on June 22, July 7 and September 13 but was not completed. The hearing will resume on October 26.
2. Work is continuing to prepare for submission of permit applications.

The total cost of the WTP including soft costs and Kids-Peace acquisition costs is estimated at \$4.69 million.

Offsite Conveyance Facilities (OSCF)

1. Wal-Mart's engineer, the Newton Engineering Group, is proceeding with the preliminary design of the necessary conveyance facilities, which includes gravity sewers, a pump station and force main to deliver the wastewater from their proposed development and other future wastewater customers to the wastewater treatment facilities. Wal-Mart at this late date has proposed that LCA assume the responsibility of designing, permitting and constructing the OSCF, which is a change from the previous plan where Wal-Mart had the responsibility. A cost-sharing agreement is still being negotiated with Wal-Mart.

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

2. An amendment to the agreement with KidsPeace is being negotiated to reflect the changed circumstances since the original agreement was signed in 2006.

6. **Wastewater Capacity Option Life Cycle Costs**

The Life Cycle Costs for the four wastewater capacity options will be presented to the Board in October if the City provides the final document prior to the meeting. The costs were calculated by the respective consultants for LCA and the City. The cost memos were reviewed, discussed and subsequently revised with final cost memos expected this week.

## 2012 BUDGET ASSUMPTIONS

### 1. Salary Adjustments

With a personnel study expected to be completed in early 2012, no salary adjustments are included in the budget. Any recommended adjustments resulting from the study will be presented to the Board and a budget amendment will be proposed for approval. One promotion in Customer Service being considered will be determined based on the outcome of the personnel study.

### Staffing

It is assumed that two Maintenance Technician positions budgeted in 2011 will be filled by December 31, 2011. A Chief Financial Officer position is also expected to be filled by year-end 2011. The 2012 budget includes two seasonal labor positions for Operations. Capital Works plan to utilize a temporary employment service to assist in preparing the numerous development and facility plans for electronic imaging that is a necessary data component for the GIS Field Mapping application. We will also consider the use of interns to assist with the documentation process for Knowledge Management.

### 2. Workforce Planning and Knowledge Management

Knowledge Management Needs Assessment and the update to the Information Technology Master Plan are expected to be completed by the end of 2011, which will guide the Authority's efforts to enhance knowledge sharing among existing and future employees. While specific initiatives have not been defined, it is expected that efforts will be focused on developing transition strategies for upcoming planned retirements and addressing critical areas within the Operations Department where employee knowledge is largely undocumented.

### 3. Education and Training (E&T)

A preliminary E&T schedule will be developed to determine 2012 costs. Focused training for individuals expected to move into management or more technical positions, as other individuals retire, will take priority as part of the organization's succession plan. Also, training required for individuals to maintain operator licenses is another priority.

### 4. Information Management and Technology Master Plan (ITMP)

The ITMP draft report is complete and is being reviewed during October. There are 11 recommendations: 5 Operations Projects, 3 Management Projects and 3 Combined Operations/Administrative/Management Projects. Our Capital Plan for next year has proposed work on several of these recommendations: A Work Order/ Asset Management System, a Document Management System and SCADA Communications and Standardization Projects.

### 5. Water and Wastewater Rates

Based upon the results of the 2010 water rate study, which looked out 5 years, we expect to implement a small increase effective April 1, 2012. The rate increase will be determined in early 2012. Rate changes for the Western Lehigh Interceptor and the Little Lehigh Relief Interceptor Systems will be determined by October 31. We hope to have the outstanding billing issues with Allentown resolved by year-end.

Existing rates for the common rate collector systems will be reviewed for adequacy with any proposed changes included within the budget. At a minimum, the Sand Spring and Weisenberg - Pointe West Systems will see a rate increase as part of a 3 year phase-in of rate increases which began in 2010. Recommended changes to the Water System Tapping Fees will also be included in the 2012 Budget.

### 6. Financing

No financings are expected in the water fund. Depending upon the progression of certain wastewater projects, significant borrowing may be required to fund such costs for the Wastewater Capacity Planning, Wynnewood Terrance System Improvements, Jordan Creek Wastewater Treatment Plant, Park Pump Station Improvements, and the Wastewater Treatment Plant Biogas Project.

**7. Public Relations**

Public relations activities will continue to follow through on the enhancements outlined in the 2009 strategic communications plan, including continued community outreach and stakeholder involvement. Sponsorship of community programs such as the household hazardous waste collection events, stream monitoring collaboration efforts, source water protection efforts, and the rain barrel program may be expanded in 2012 due to increased community interest. Total costs for public relations activities are expected to remain constant, although more attention will be focused on increasing the Authority's online presence and engaging in community dialogue on upcoming projects and initiatives, with decreased emphasis on printed publications.

**8. Customer Care**

Specific expenses for the customer care program will not change significantly in 2012. However, additional attention will continue to be placed on enhancing LCA's payment plan program and collections efforts, which may include a modest level of penalty forgiveness for certain qualified customers for positive payment plan performance. In addition, the Authority will continue to promote the use of the AutoPay and online payment options as ways to reduce payment entry workload and enhance accuracy. A paperless billing option is currently under consideration, which may reduce paper, printing and postage costs, depending on customer participation levels. Finally, with the second phase of the meter replacement program scheduled for completion in 2012, payroll costs related to meter reading is expected to decrease as most areas are converted to the radio-read metering system.

**9. Capital Projects**

Capital projects will be developed based upon the first year of the 2012-2021 Capital Plan (Plan). As described in project details within the Plan, the highest priorities will be focused on developing future capacity for water and wastewater systems to meet future growth needs.

Any payouts for actual system purchase and deviation from the Plan and Budget will be handled through Budget Amendments.

**10. Growth Strategy**

- a. Acquisitions – The budget assumes the acquisitions of the Lynn Township Sewer System as of 1/1/12. The Capital budget includes funds for acquisition research and discussions with the expenses at 2011 levels (\$25,000 water/ \$20,000 sewer).

## 11. Benefits

The table below provides actual and projected data assuming no change in the current benefit plans and only includes coverage for active employees. LCA is reimbursed for 100% of retiree costs through the OPEB trust account (79%) and retiree contributions toward healthcare costs (21%).

	2008	2009	2010	2011	2012
	Actual	Actual	Actual	Estimate	Budget
Medical - Blue Cross Trad & HMO	\$ 367,805	\$ 387,241	\$ 418,517	\$ 475,808	\$ 514,464
Pool Dividend Return (5)	(1,412)	(30,323)	(96,800)	(50,000)	-
MM Self Insure - Active	9,658	6,558	7,801	7,000	7,000
Dental	25,625	27,102	26,175	26,775	29,346
Employee Co-pays (7)	-	(8,638)	(21,310)	(29,465)	(35,187)
Cancer	435	647	448	530	530
<b>Subtotal Medical</b>	<b>\$ 402,111</b>	<b>\$ 382,585</b>	<b>\$ 332,831</b>	<b>\$ 430,648</b>	<b>\$ 516,152</b>
Pension	100,120	94,991	99,911	134,545	136,779
Life Ins, AD&D &					
ST & LT Disability (6)	35,890	30,646	33,302	29,175	30,885
FICA	173,895	172,805	183,446	178,415	192,225
Cobra Svc	510	609	650	470	650
Flex Plan	1,695	1,933	1,952	1,953	2,050
Benefits Waiver Reimb (1)	30,945	30,240	27,828	28,437	30,276
<b>Total Costs</b>	<b>\$ 745,166</b>	<b>\$ 713,809</b>	<b>\$ 678,920</b>	<b>\$ 803,643</b>	<b>\$ 909,017</b>
Total Salaries (2)	\$ 2,222,296	\$ 2,235,357	\$ 2,448,722	\$ 2,400,000	\$ 2,582,950
Bonus Payout	\$ 15,397	30,407	40,614	33,000	50,372
Benefit% to Total Salaries	33.5%	31.9%	27.8%	33.5%	35.5%
# of Fulltime Employees (3)	39	40	40	42	42
Fulltime Equivalents (FTE)	38.6	38.4	39.7	39.6	42.5
# of Retirees (4)	5	5	5	5	5
Cost per FTE	\$ 19,305	\$ 18,589	\$ 17,126	\$ 20,294	\$ 21,389

(1) Includes cash reimbursement to employees that have waived medical coverage.

(2) Excludes benefits waiver, LCA self-insured disability and bonus payout. 2010 includes an extra pay period.

Does not include any 2012 salary increase but includes 3 new employees to be hired by year-end 2011.

(3) At year-end.

(4) Only includes retirees with benefits through LCA.

(5) Dividend is placed in year it pertains to.

(6) Includes LCA Disability payouts.

(7) Assumes the same level of employee contribution as in 2011.

In 2012, a 4.4% increase will be incurred for medical and prescription drug coverage. As a result of a 2011 bid by the Pennsylvania Municipal Health Insurance Cooperative, dental, life and disability insurance premiums will remain stable. When compiling only existing employees, the total benefit increase amounts to 3.5%. In addition, the Authority received a \$96,800 dividend return for favorable experience in 2010 which equated to 20.3% of the premium paid. During the past 5 years, our healthcare costs, when considering dividends and employee co-pays, have tracked below the cumulative inflation trend.

It should be noted that the cost difference between 2011 and 2012 are primarily a result of 3 new employees being hired during the last two months of 2011.

## 12. Customer Growth

Historical and projected customer growth and billable wastewater flows are as follows:

	2008 Actual	2009 Actual	2010 Actual	2011 Estimate	2012 Budget
<b>Water:</b>					
<b><u>WLSA/SLSA (2)</u></b>					
Residential	524	509	503	280	205
Commercial	16	20	15	5	9
<b><u>NLSA (1)</u></b>					
Residential	8	6	121	12	4
Commercial	-	1	-	-	1
Total Growth Additions	548	536	639	297	219
Total Acquisition Additions	-	-	116	-	-
Total Customers at Year end	18,606	19,142	19,781	20,078	20,297
<b>Wastewater:</b>					
<b><u>Upper Milford</u></b>					
Residential (4)	22	17	12	80	217
Commercial	1	-	-	-	23
<b><u>Weisenberg</u></b>					
Residential	-	1	-	-	-
Commercial	-	-	1	-	-
<b><u>Heidelberg Heights</u></b>					
Residential	-	-	-	-	-
<b><u>Wynnewood Terrace</u></b>					
Residential	-	-	-	-	-
Commercial	-	-	-	-	-
<b><u>Washington Twp</u></b>					
Residential	-	549	2	2	-
Commercial	-	23	-	-	-
<b><u>Sand Springs</u></b>					
Residential	-	-	-	-	-
Commercial	-	-	-	-	-
Total	23	590	15	82	240
Total Collector System Customers	1,245	1,835	1,850	1,932	2,172
WLI Billable Flow (3)	2,461,920	2,468,366	2,594,982	2,872,000	2,800,000

(1) Includes North Whitehall, Washington Twp, Mill Creek, Pine Lakes of Lynn, Heidelberg Heights, Sand Springs and Lynn Water Company systems.

(2) Includes Beverly Hills, Emmaus out-of-borough, Buss Acres and Arcadia systems.

(3) Represents LCA flow to Allentown in 1,000 gals.

(4) Assumes 25% of residential customers in Vera Cruz project are connected before year-end 2011.



## 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](mailto:service@lehighcountyauthority.org)

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### MEMORANDUM

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**Date:** October 14, 2011

**To:** Authority Board  
**From:** Pat Mandes, Frank Leist,  
**Subject:** LCA-WTP Truck Waste Receiving Station &  
Primary Digesters Mixer Replacement

Design Phase -Capital Project &  
Professional Services Authorizations

#### MOTIONS /APPROVALS REQUESTED:

No.	Item	Amount
1	<u>Capital Project Authorization – Design Phase:</u> LCA-WTP Truck Waste Receiving Station & Primary Digester Mixer Replacements	\$215,000
2	<u>Professional Services Authorization - Design Phase:</u> LCA-WTP Truck Waste Receiving Station & Primary Digester Mixer Replacements. <i>CET, Inc. **</i>	\$137,000

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

#### GENERAL BACKGROUND

In October 2010 through a competitive consultant selection process, LCA retained CET Engineering, Inc. to undertake a WTP Energy Audit/Bioenergy Recovery Evaluation Study ("Study"). A presentation of the findings was made at the August Board meeting.

In general, Phases 1 and 2 of the Study focused on the LCA-WTP. Phase-1 was the economic analysis of biogas production to determine if it was more beneficial to sell or utilize the biogas for Combined Heat and Power (CHP). Phase 2 looked at energy efficiency / conservation & biogas production. The final major recommendations were:

1. Construct a CHP System: Providing that approximately 300 cfm of biogas can be produced at the LCA-WTP. It is estimated that the CHP system will be capable of producing ~75% of the LCA-WTP electric power needs. (Note: current LCA-WTP biogas production is ~150-200 cfm)
2. Construct a Truck Waste Receiving Station: Will allow the introduction of high strength liquid waste directly into the digesters which will (1) increase biogas production by an estimated ~114 cfm; and (2) will reduce the amount of high purity oxygen that needs to be produced resulting in an estimated annual electrical power savings of ~ \$150,000



3. Replace the Mixers in the Primary Digesters: Replacing the current inefficient mixing systems in the two primary digesters will; (1) increase biogas production by an estimated ~31cfm; (2) reduce the amount of solids, thereby resulting in an estimated annual land application disposal cost; savings of ~\$65,900; and (3) provide estimated annual electric power savings of ~\$10,400.

#### **THIS PROJECT**

This Project will construct a Truck Waste Receiving Station and Replace the Mixers in the two Primary Digesters resulting in projected operational savings and increased biogas production, the latter required for the future CHP project. It also includes work related to WTP sub-metering, PPL E-Power Custom Incentive Program and quantification of operational savings to be utilized for reducing LCA costs included in the OMI operations contract. **Note:** Based upon previous Upper Macungie Township determination regarding the Flow Equalization Basin Township Land Development approval is not anticipated for the Truck Waste Receiving Station, we are awaiting confirmation.

#### **CONSULTANT SELECTION**

An additional solicitation of consultants was not undertaken for this Project; however we did negotiate a price for Design Phase and Construction Engineering services that provides the best value for the Authority. It is our recommendation that the Professional Services as detailed in the Proposal attached to the Professional Services Authorization be awarded to CET Engineering, Inc. for the following reasons.

1. CET Engineering, Inc. was the consultant that performed the WTP Energy Audit/Bioenergy Recovery Evaluation Study that identified this Project; and as such has already gained much knowledge related to processes, operations and equipment at the LCA-WTP. In addition, of the three firms solicited for the Study work, CET's proposal was the lowest; and as compared to the other two firms was 40% lower than the highest proposal and 28%% lower than middle proposal.
2. CET has demonstrated through the work undertaken in the Study, their expertise in the wastewater treatment and bioenergy fields and ability to produce a quality work product. In addition they are accommodating, professional and a pleasure to work with.
3. This type of consulting work is specialized and requires comprehensive experience in the wastewater treatment.
4. Given the estimated operational savings from this Project and the impact on additional biogas production that is necessary for the future CHP project it is important to move forward as soon as possible.

#### **PROJECT SCHEDULE:**

Reference the schedule(s) attached to the CET Proposal

# CAPITAL PROJECT AUTHORIZATION

PROJECT NO.: S-11-01 BUDGET FUND: WTP-Wastewater Water Capital-

PROJECT TITLE: **LCA WTP-TRUCK WASTE RECEIVING  
STATION & PRIMARY DIGESTER MIXER  
REPLACEMENTS**

THIS AUTHORIZATION \$215,000

**PROJECT TYPE:**

- ☒ Construction  
☐ Engineering Study  
☐ Equipment Purchase  
☐ Amendment

**DESCRIPTION AND BENEFITS:**

The Project includes the construction of a Truck Waste Receiving Station and Primary Digester Mixer Replacements. In addition, the Project also includes work related to sub-metering, PPL Customizable Energy Program and quantification of operational savings to be utilized for reducing LCA contract operator costs.

In addition to projected operational savings the Project will also increase biogas production; the latter is required for the future CHP project. Finally, participation if approved by PPL in the E-Power Custom Incentive Program and subsequent verification of reduced electric power usage that is a component of the aforementioned projected operational savings may result in a significant onetime annualized E-Power rebate.

For additional information please reference the cover Memo.

**AUTHORIZATION STATUS:**

REQUESTED THIS AUTHORIZATION	
<b><i>Design Phase</i></b>	
Staff	\$ 28,000
Engineering Consultant (1)(2)	137,000
Miscellaneous	25,000
Contingency	25,000
<b>Total This Authorization</b>	<b>\$ 215,000</b>

Future Authorization	
Procurement/Construction Phase(s)	\$1,260,000

<b>Total Estimated Project</b>	<b>\$1,475,000</b>
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- (1) Also Includes Bidding Services, Sub-metering plan, PPL Custom Incentive Program work & Quantifying Operational Savings
- (2) Does not include any costs associated with a land development for the Truck Waste Receiving Station if Upper Macungie deems it applicable. Reference Cover Memo "This Project" section for Additional Information

**REVIEW AND APPROVALS:**

Project Manager

Date

General Manager

Date

Capital Works Manager

Date

Chairman

Date



## Lehigh County Authority

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### MEMORANDUM

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**From:** Pat Mandes, Frank Leist,  
**Subject:** LCA-WTP Truck Waste Receiving Station &  
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#### **CONSULTANT SELECTION**

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1. CET Engineering, Inc. was the consultant that performed the WTP Energy Audit/Bioenergy Recovery Evaluation Study that identified this Project; and as such has already gained much knowledge related to processes, operations and equipment at the LCA-WTP. In addition, of the three firms solicited for the Study work, CET's proposal was the lowest; and as compared to the other two firms was 40% lower than the highest proposal and 28%% lower than middle proposal.
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3. This type of consulting work is specialized and requires comprehensive experience in the wastewater treatment.
4. Given the estimated operational savings from this Project and the impact on additional biogas production that is necessary for the future CHP project it is important to move forward as soon as possible.

#### **PROJECT SCHEDULE:**

Reference the schedule(s) attached to the CET Proposal



C E T E N G I N E E R I N G S E R V I C E S

September 27, 2011

Lehigh County Authority  
PO Box 3348, 1053 Spruce Street  
Allentown, PA. 18106

Attention: Ms. Pat Mandes,  
Director of Wastewaters Services

Re: Professional Services Proposal  
Design phase and limited Construction phase services for:  
Truck Waste Receiving Station and Digester Mixer Replacements

Dear Ms. Mandes,

We appreciate consideration by the Lehigh County Authority (LCA) of CET Engineering Services (CET) for professional services associated with the above referenced projects.

**Design Phase Services:**

**Permitting:**

The LCA WWTP is located in Upper Macungie Township, Lehigh County. We understand the only local / townships permits required are building code compliance related and that Land Development Permits are not required.

We understand current permits held by the facility include a Minor Air Permit last renewed in 2008 and amended in 2010, a stormwater permit, a residual waste processing permit, and an AST registration for one tank.

Based upon our discussions with DEP a Water Quality Management (WQM) permit application is required for the truck waste receiving station and mechanical draft tube digester mixer system replacement projects. The application fee for a WQM permit application, if required, for the hauled waste receiving station and mechanical draft tube mixer system replacement is itemized separately in the cost section. The engineering fee (\$4,500) will not be billed if this permit is not required. CET will submit a Request for Determination unless directed otherwise by LCA. Note: *estimated DEP review time is typically running about 60 days, but by DEP policy, can take up to 180 days*

**Tasks**

1. Prepare WQM permit applications, if required for both projects and respond to and/or make necessary revisions as required by DEP to obtain permits. *Note: Application fees to DEP to be paid by LCA.*

Design:*General:*

1. Conduct three design review meetings and provide an opinion of cost at the 30%, 60% and 95% design complete stages
2. Prepare and maintain a Project Design Schedule that identifies the tasks and milestone dates by which activities must be completed to maintain the overall project schedule.
3. Prepare Drawings on 24"x36" paper using AutoCAD version 2011 or lower showing the existing conditions, demolition (if applicable) and proposed improvements. Include all applicable files for plotting, such as CTB file, images, x-references, etc.

*Plans, Specifications & Project Manual:**Truck Waste Receiving Station:*

1. Prepare Site/Civil, Structural, Architectural, Mechanical/Process, Electrical and Instrumentation drawings.
2. Prepare Technical Specifications only.
3. Four sets of documents will be provided to LCA

*Digester Mixer Replacements*

1. Prepare specifications that meet the requirements of PennVEST and other funding agencies. The specifications will include but not be limited to sections on nondiscrimination in employment, compliance with Prevailing Rate or Davis-Bacon as applicable wage rates and contractor solicitation of Disadvantaged Business Enterprise (DBE) firms. As an example, agency requirements, such as specifying at least two manufacturers followed by the words "or equal".
2. Prepare Site/Civil, Structural, Architectural, Mechanical/Process, Electrical and Instrumentation contract and other additional contract drawings and specifications required by law, suitable for bidding and submission to permitting agencies. Demolition plans, if applicable will be included in the plan set. Four sets of documents will be provided to LCA.
4. Prepare a Project Manual that contains all documents required for bidding the project as required by law. The front half of the Manual will consist of the EJCDC standard documents that have been modified to meet LCA's needs, including the Instructions to Bidders, Bid Form, Bid Bond, Agreement, Performance and Payment Bonds, and the General and Supplementary Conditions. LCA will provide you with these documents for inclusion in the Contract Documents, as well as the following documents: Agreement of Surety, Certificate as to Corporate Principle, Affidavit of Non-Collusion, Experience Questionnaire, List of Proposed Subcontractors, List of Major Equipment Manufacturers, Pennsylvania Steel Products Procurement Act section, Pennsylvania Prevailing Wage Act section (unless superseded by Davis-Bacon wage rate requirements), and Change Order form. CET will customize these documents, while preserving the formatting, insertions and deletions, for the current project.
5. Prepare the Technical Specifications section of the Project Manual organized in standard CSI three-part specification format.
6. Four sets of documents will be provided to LCA

Project Design Elements:**Project 1      Truck Waste Receiving Station:**

The new truck receiving station is currently envisioned to include the following:

High strength hauled waste without significant grease load is considered the primary candidate waste stream for the new truck waste receiving station. Provisions will be included in the new station for some grease loading.

*Note: The current waste receiving station would be utilized for the majority of truck hauled grease. The design of a dedicated grease receiving add-on to the proposed the truck waste receiving station is optional and is not included as part of this proposal. This add-on would also increase project costs.*

- Ability to receive two 5,000 gallon tankers simultaneously.
- All truck flow to be metered. Automatic sampler ports to be provided.
- Rock trap and automatic screening, 3/8" bar spacing. Screen to include screenings washing and compaction step. Screen to be housed in a flat roof, split face block building.
- Automatic data logger for trucks.
- Systems will be PLC-based and ready for connection to a future plant SCADA system

**Tasks**

1. Prepare a cost/benefit analysis of; siting location, use of the existing unused DAFT tank, and ancillary features will be performed. This analysis will consider first cost plus energy operating costs associated with the alternative sites and tankage requirements and will formulate the basis for the 30% design review meeting. This meeting will be held three to four weeks after authorization to proceed.
2. Evaluate the proposed location of the truck waste receiving station. *Note: The proximity of idling trucks to oxygen system intake will be considered.*
3. Conduct an evaluation of improvements to the existing trucked grease receiving station that shall include an opinion of cost.

*Note: At the 30% design meeting some modifications to the design can be made at this stage, including final location, and further discussion on grease receiving.*

**Deliverables:**

1. Concept site plan" showing the recommended location of the truck waste receiving station
2. Brief report summarizing the findings of the above Task 3.
3. A technical memo summarizing the final design conclusions of the work set forth in aforementioned tasks. This memo, after LCA approval will be the basis of Final design

**Project 2      Digesters Mixer Replacements**

The new Digester Mixing system is currently envisioned to include the following:

- Two mechanical draft tube mixers in two primary digesters.
- Access platforms to service of mixing equipment.

**Tasks**

1. Conduct a structural analysis of the digester will be conducted to determine whether "side-mount" external or "roof mount" internal type draft tube mixers are most suitable from a

structural standpoint. This analysis will be completed within two to three weeks after the authorization to proceed and will formulate the basis for the 30% design review.

2. Investigate the proposed mixer location options and suggested platform materials of construction.

*Note: Modifications to the platform design can be made at this stage. Equipment procurement considerations for mixers can be finalized at this meeting.*

#### Deliverables

1. Sketches of the proposed mixer location and suggested platform materials of construction
2. Layout concept plans of the platform structure and mixer assembly
3. Preliminary cost estimate of the platform structure and mixer assembly
4. A technical memo summarizing the final design conclusions of the work set forth in aforementioned tasks. This memo, after LCA approval will be the basis of Final design.

#### Sub-metering

CET will meet with the LCA and the WTP Operator to discuss sub-metering as it relates to measurement and verification requirements of the PPL E-Power Custom Incentive programs. Topics covered during this meeting will include;

#### Tasks

1. Discuss energy saving measures to be installed and which PPL incentives will be submitted for.
2. Review the plant electrical one line diagram to determine how systems can be electrically 'isolated' for targeted monitoring.
3. Inspect existing electrical switchgear, panel boards and motor control centers to determine if/how/where submeters can be installed.
4. Discuss whether submeters will be permanent or temporary.
5. Discuss method and frequency of data collection.
6. Discuss how submetering will be procured and installed (by Operator, separate project, part of design/construction project).

#### Deliverables

1. Prepare a sub-metering location plan drawing and will specify submeters and data-loggers.

*Note: The cost of sub-meters, data loggers, installation and programming/configuration is not included.*

#### PPL E-Power Custom Incentive Program

#### Tasks

1. Meet with the LCA and PPL to discuss available incentives for the energy efficient upgrades planned for the plant (i.e. truck receiving and digester mixer upgrades).
2. Prepare an application for PPL's Custom Incentive Program for the upgrade projects and respond to and/or make necessary revisions to applications as per PPL comments.
3. Prepare a commissioning plan and a measurement and verification plan to meet PPL requirements and respond to and/or make necessary revisions to the commissioning plan as per PPL comments..
4. Upon project completion, CET will prepare and submit PPL's project completion form and respond to and/or make necessary revisions to the project completion form as per PPL comments.



*Note: CET cannot guarantee availability or approval of PPL funding.*

Quantifying Operational Savings for negotiation of Contract Operator fee:

The Wastewater Pretreatment Plant Energy Audit and Bioenergy Recovery Evaluation provided estimated operational savings from both the Truck Waste Receiving Station (i.e. electrical power savings realized from reducing High Purity Oxygen generation because of direct injection to high strength in to the digesters) and the Digester Mixer Replacements (i.e. electrical power savings from lower HP mixer motors and bio-solid land application savings resulting from an increase in VS destruction) .

Tasks

1. Develop a methodology and/or formula to measure actual savings that is acceptable to LCA and the Contract Operator

Deliverables

1. Technical Memo outlining the aforementioned methodology.

**Bid Phase Services:**

Except as noted shall be limited to the Digester Mixer Replacements and and shall include, if deemed necessary by LCA the bidding for procurement of long lead time equipment in advance of the bidding for construction contracts.

Tasks

1. Prepare advertisement in accordance with public bidding laws. Advertising costs will be paid by LCA.
2. Distribute Contract Documents to prospective bidders. Payments by prospective bidders shall be used to offset your reproduction costs.
3. Maintain a list of bidders.
4. Respond in writing to questions by prospective bidders and equipment suppliers concerning information in the Contract Documents.
5. Schedule and conduct a Pre-Bid meeting to cover the project, and prepare and distribute minutes to attendees and other appropriate parties.
6. Prepare and issue Addenda as appropriate to interpret, clarify or expand upon the Contract Documents.
7. Attend the bid opening, prepare bid tabulation sheets, and evaluate the bids received.
8. Review qualifications and experience data furnished by bidders. Review bid bonds, insurance and other information provided for general conformance with Contract Documents.
9. Provide written recommendation with respect to acceptance of bids and award of construction contracts.
10. Review necessary agreements and performance and payment bonds for each prime contract for execution by LCA and the successful bidders.

**Construction Phase Services (limited):****Truck Waste Receiving Station****Tasks**

1. Review and approve of shop drawings, samples, and tests as appropriate.
2. Organize, conduct and provide meeting minutes for the following meetings
  - a) Pre-construction- *1 meeting*
  - b) Construction Progress- *2 meetings*
  - c) Construction Progress- Electrical Only – *1 meeting*
  - d) Substantial Completion – *1 meeting*
  - e) Final Completion -*1 meeting*
3. Provide Technical Assistance to include, but not limited to responding to contractor's RFIs, issuance of clarifications and change orders if necessary, phone consulting, copies to LCA of written and electronic job related correspondence.

**Digester Mixer Replacements****Tasks**

1. Review and approve of shop drawings, samples, and tests as appropriate.
2. Organize, conduct and provide meeting minutes for the following meetings
  - a) Pre-construction- 1 meeting
  - b) Construction Progress- *2 meetings*
  - c) Construction Progress- Structural only- *1 meeting*
  - d) Construction Progress- Electrical only – *1 meeting*
  - e) Substantial Completion – *1 meeting*
  - f) Final Completion -*1 meeting*
3. Provide Technical Assistance to include, but not limited to responding to contractor's RFIs, issuance of clarifications and change orders if necessary, phone consulting, copies to LCA of written and electronic job related correspondence.

*Note: Although separate meetings for each project are included in the fee, to reduce costs every effort will be made combine meetings for both projects on the same day.*

**Schedule:**

The existing digester mixing system is currently budgeted for major maintenance. The design of the new mixers should, in our opinion be fast-tracked. . We anticipate construction of the truck receiving station and digester mixers to occur somewhat simultaneously. Reference attached projects schedule.

**Fee Estimate:**

Engineering services fees are broken down by project in Table 1 on the following page. The majority of the fee is cost-plus, not to exceed, but several tasks are cost allotment fees.

Cost-plus, not to exceed: Is understood that CET will perform the work as outlined in the aforementioned proposal. Billings will be based on actual number of hours required up to a maximum not to exceed fee. If the actual costs are less than the not to exceed fee LCA will only be billed for the actual costs.

**Cost Allotment:** Is provided for the Sub-metering Assistance, PPL Customizable Energy Incentive Program work, and Construction Services Task 3 "Technical Assistance". The cost allotment is understood to mean a maximum of man-hours and fee has been allotted to this task, if less hours are required LCA will not be billed, if more hours are required CET will invoice additional hours in accord with the Rate Schedule included as Exhibit 1 to this proposal. As work progresses CET will notify the LCA Project Manager in advance if any of the cost allotments are expected to exceed the estimated amounts and at such time will provide justification and an estimate of additional costs. Work shall not proceed beyond estimated amounts until said additional costs has been approved.

<p align="center"><b>Table 1</b> <b><u>CET Fee Estimate</u></b></p>	
<b>Fee Item Description</b>	<b>Truck Receiving Station and Digester Mixers</b>
Permitting (1)	4,500
Design (1)	\$114,200
Bid Phase (1)	6,000
PPL application and Submetering (2)	9,000
Construction Phase (1&3)	\$62,500
<b>TOTAL</b>	<b>196,200</b>

- (1) *Cost Plus Not to Exceed*  
 (2) *Cost Allotment; PPL application-\$3, 000; Submetering-\$6000*  
 (3) *Construction Phase Services include cost allotment for Task 3 "Technical Assistance".  
 The cost allotment for Task 3 is; Truck Receiving Station and Digester Mixers\$14,000.*

We look forward to working with the Lehigh County Authority on these beneficial improvement projects, and remain available for questions and discussions regarding this proposal. If this proposal is acceptable CET will furnish a Standard Form of Agreement similar to that used in the study phase.

Very Truly Yours  
 CET ENGINEERING SERVICES

Stanley J. Chilson P.E.  
 Senior Project Manager

CC: J. Wendle, President, CET  
 S. Petersen, Electrical Project Manager GHD

### Schedules

#### Truck Waste Receiving Station and Digester Mixer Replacements

Dates are starting from an executed agreement by and between LCA and CET.

#### **Project 1      Truck Receiving Station**

Design Review Meeting No. 1	30 days
WQM permit application	45 days
Preparation of 60% Contract Documents, review meeting 2	60 days
Preparation of Contract Documents, suitable for construction review meeting no. 3	80 days
Equipment Procurement Allotment      30 days after meeting 3	
Receipt of WQM permit	90 to 120 days
Start of Construction	110 days
Construction Period      90 days	
Start-up and Commissioning	200 days

#### **Project 2      Digester Mixers**

Design Review Meeting No. 1	within 30 days
Mixer Equipment Procurement technical spec., if applicable	45 days
WQM permit application	45 days
Preparation of 60% Contract Documents, review meeting 2	60 days
Preparation of biddable Contract Documents, review meeting no. 3	80 days
Advertisement for Bid	90 days
Advertising Period Allotment      24 days after advertisement	
Receive Bids	114 days
Receipt of WQM permit	90 to 120 days
Contract award	144 days
Notice to Proceed / Start of Construction	164 days
Construction Period      60 to 120 days, depending on type of mixer procurement selected	
Start-up and Commissioning	224 to 280 days

# CAPITAL PROJECT AUTHORIZATION

PROJECT NO.: \_\_\_\_\_ BUDGET FUND: WASTEWATER CAPITAL - LL1

PROJECT TITLE: Park Pump Station - Fuel Tank Replacement

PROJECT TYPE:

<input checked="checked" type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

Construction  
Engineering Study  
Equipment Purchase  
Amendment

COST ESTIMATE: \$ 26,500

## DESCRIPTION AND BENEFITS

This project will install an above ground 8,000 gallon fuel tank at the Park Pump Station to power the stand-by generator. The previous leaking underground tank was removed in 2005. Currently, the facility is operating with a temporary above ground tank. The tank to be installed will be double walled, with leak detection sensors and alarms. There will be a decorative screening (either plantings or a wall) as well as security fencing to protect access.

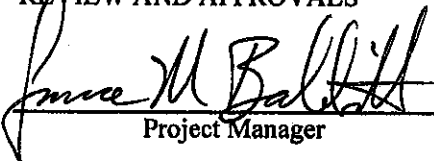
This Approval	
<b>PLANNING PHASE</b>	
Payroll	\$ 4,200
<b>DESIGN PHASE</b>	
Payroll	\$ 5,800
Professional Services	\$ 13,500
Permits	\$ 500
Misc Exp	\$ 100
Contingency	\$ 2,400
Total	\$ 26,500

## FUTURE APPROVAL

CONSTRUCTION PHASE COSTS: \$80,000 (EST)

TOTAL PROJECT COST \$ 106,500

## REVIEW AND APPROVALS

  
Project Manager

10/17/11  
Date

\_\_\_\_\_  
General Manager

\_\_\_\_\_  
Date

\_\_\_\_\_  
Capital Works Manager

\_\_\_\_\_  
Date

\_\_\_\_\_  
Chairman

\_\_\_\_\_  
Date



Lehigh County Authority

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

## PROFESSIONAL SERVICES AUTHORIZATION

**Professional:** Barry Isett & Associates, Inc.  
PO Box 147  
Trexlerstown, PA 18087-0147

**Date:** October 17, 2011

**Requested By:** Lance M. Babbitt

**Approvals**

**Department Head:** \_\_\_\_\_

**General Manager:** \_\_\_\_\_

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

As per the attached proposal to provide the following services related to design services for the Park Pump Station Fuel Tank Replacement.

- Stake property boundaries and verify existing station surface details.
- Prepare design drawings.
- Prepare specifications suitable for public bidding. LCA will provide EJCDC front end.
- Secure all permits, both municipal and regulatory.
- Place project to bid, prepare any addendum.
- Hold bid opening and make a recommendation to award.

Cost Estimate (not to be exceeded without further authorization): **\$ 13,428.00**

Time Table and Completion Deadline:

**Complete by March 1, 2012**

**(For Authority Use Only)**

**Authorization Completion:**

**Approval:** \_\_\_\_\_ **Actual Cost:** \_\_\_\_\_ **Date:** \_\_\_\_\_



## Lehigh County Authority

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

### MEMORANDUM

Date: October 17, 2011

To: Board of Directors & Management Staff  
From: Lance M. Babbitt  
Re: Park Pump Station – Fuel Tank Replacement

#### MOTIONS/APPROVALS REQUESTED

No.	Motions/Approval Items	Brief Description	Amount
1	Capital Project Authorization	Design, Bidding Phase	\$26,500.00
2	Professional Services Authorization	Barry Isett & Associates	\$13,428.00

#### BACKGROUND

The Park Pump Station is a 20 mgd wastewater pumping station that is an integral part of the Western Lehigh Interceptor System. In 2005, the 8,000 gallon below grade fuel tank was found to be leaking and required removal. A removal and remediation plan was proposed and implemented and the final "Closure Report" was received from DEP in April of 2011. Currently, the facility is operating off of a temporary above ground tank within a small containment basin. There is no security for this tank and continued use at this location may jeopardize the City of Allentown Park System.

#### PROJECT OVERVIEW

To avoid further disturbance to the contaminated area, we are proposing an above ground, double containment tank be installed. Due to the park nature of the area, a shield wall or screening to obscure the tank will be necessary, as well as provide security for the facility. The current proposed project will design, permit, bid and recommend award of construction contract. A future amendment will be necessary to award the construction.

#### CONSULTANT SELECTION

Staff solicited five firms for design and bidding proposals. Four proposals were received on September 30, 2011. A summary of the proposals follows:

RETTEW	\$10,500.00
Barry Isett & Assoc.	\$13,428.00
Keystone	\$14,176.00
ARRO	\$17,247.00

The following Action is recommended:

Staff recommends award of this contract to: **Barry Isett & Associates for a total of \$13,428.00.**

The second low proposal was selected due to Isett's extensive contacts within the City of Allentown's Parks and Recreation Department. Neil Kern is the former City of Allentown Engineer and Public Works Director.

**PROJECT SCHEDULE:**

Award Work	October 24, 2011
Kick off Meeting	October 27
Complete Design	December 27
Secure Permits	January 26, 2012
Solicit Bids	February 10
Receive Bids	February 24
Award Work	February 27
Start Construction	March 15
Complete Construction	June 15





# BARRY ISETT & ASSOCIATES, INC.

Multidiscipline Engineers & Consultants

[www.barryisett.com](http://www.barryisett.com)

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85 S. Route 100 & Kressler Lane  
P.O. Box 147  
Trexlerstown, PA 18087-0147

**610 • 398 • 0904**

FAX: 610 • 481 • 9098

September 29, 2011

BIA #P02370MS.T11

Mr. Lance Babbitt  
Lehigh County Authority  
1053 Spruce Street  
P.O. Box 3348  
Allentown, PA 18106-0348

Dear Mr. Babbitt:

**RE: PARK PUMP STATION – NEW FUEL TANK**  
Cost Proposal

Barry Isett & Associates, Inc. (BIA) is pleased to submit this cost proposal for engineering services, as described in detail in our Technical Proposal.

We propose to do the work on an hourly basis, at our standard hourly rates (sheet attached) at a **Not-to-Exceed Budget of \$13,428.00**, as detailed in the attached matrix.

The client/owner is responsible for payment of all permit and application fees with the exception that the contractor shall pay for any and all tank registration and permitting fees.

This proposal is based on preparing one complete design in accordance with the current scope of services. If revisions or changes to the design are necessary, due to changes in the scope of services, unusual or indecisive interpretations, or requirements by any reviewing agency, or other factors beyond our control, we may require additional compensation. Any work completed after June 30, 2012, will be billed at the rates in effect at that time, although we are not changing the budget numbers due to this item.

The cost of reimbursable expenses that are in addition to the basic services will be itemized separately. Reimbursable expenses include long distance mileage, postage and handling, next day mail, preparation of materials for electronic transfer, hand delivery of materials, reproductions, photographs, construction prints, and any additional insurance coverage or limits (including professional liability insurance) requested in **excess** of that normally carried. Reimbursable expenses will not exceed \$50.00, without prior approval from LCA.

Prior to performing any work that is outside the scope of the work of this agreement, BIA will provide an estimate of the additional cost based on the enclosed hourly rate schedule and will obtain approval from the client/owner.

The attached standard contract terms and conditions shall be made a part of this agreement.

If, after you have reviewed this proposal you are satisfied with the terms, please sign one copy and return it to us, as it will serve as our agreement for this work. The duplicate is for your records.

We appreciate the opportunity to serve you and look forward to the successful completion of this work.

Sincerely yours,



Harry E. Garman, PE, PLS  
Municipal Services

Attachments

ACCEPTED BY:

\_\_\_\_\_  
(Sign name)

DATE: \_\_\_\_\_

\_\_\_\_\_  
(Print name and title)

# LCA Proposal - New Fuel Storage tank

No.	Description	Sr. Engrg. Manager	Senior Project Manager	Project Technician	Staff Technician	Prof. Surveyor	Survey Crew	Project Support	Totals
1	Set up & attend kick-off meeting, develop schedule & review site conditions	2	4						\$770.00
2	Stake property Boundaries and verify existing station surface details				8	8	8		\$2,320.00
3	Prepare design drawings of tank foundation and location plan		8	16	8				\$2,552.00
4	Prepare design of security fence and landscaping and obtain approval from City		8	16	2				\$2,192.00
5	Prepare specifications suitable for Bidding. LCA will provide EJCDC front end.	2	12					2	\$1,784.00
6	Secure all permits, both municipal and regulatory		8	4				2	\$1,302.00
7	Attend Pre-Bid Meeting, prepare meeting minutes and prepare any addendum	2	12					2	\$1,784.00
8	Hold bid opening and make recommendation to award		4						\$460.00
9	Deleted								\$0.00
10	Miscellaneous	2	4	2	2				\$1,034.00
	TOTALS	6	56	38	20	8	8	6	\$13,428.00



**2011 FEE SCHEDULE**

SENIOR ENGINEERING MANAGER	\$155.00/hr.
ENGINEERING MANAGER	\$135.00/hr.
SENIOR PROJECT MANAGER	\$115.00/hr.
PROJECT MANAGER	\$100.00/hr.
SENIOR PROJECT PROFESSIONAL/DESIGNER	\$100.00/hr.
PROJECT PROFESSIONAL/DESIGNER	\$ 90.00/hr.
STAFF PROFESSIONAL	\$ 85.00/hr.
SENIOR PROJECT TECHNICIAN	\$ 82.00/hr.
PROJECT TECHNICIAN	\$ 72.00/hr.
STAFF TECHNICIAN	\$ 60.00/hr.
PROJECT SUPPORT	\$ 47.00/hr.
CHIEF SURVEYOR	\$120.00/hr.
PROFESSIONAL SURVEYOR	\$ 95.00/hr.
SURVEY CREW CHIEF	\$ 85.00/hr.
SURVEY CREW/GPS CREW	\$135.00/hr.
THREE-PERSON SURVEY CREW	\$190.00/hr.
SENIOR ENVIRONMENTAL SCIENTIST	\$100.00/hr.
PROJECT ENVIRONMENTAL SCIENTIST	\$ 90.00/hr.
STAFF ENVIRONMENTAL SCIENTIST	\$ 75.00/hr.
CONSTRUCTION MANAGER	\$125.00/hr.
CONSTRUCTION BUILDING OFFICIAL	\$ 90.00/hr.
CONSTRUCTION SERVICES	\$ 80.00/hr.
GIS SPECIALIST	\$120.00/hr.
GRANTS SPECIALIST	\$ 90.00/hr.
EXPERT WITNESS TESTIMONY	\$200.00/hr.
EXPERT INVESTIGATION	\$150.00/hr.

**NOTE:** The cost of reimbursable expenses that are in addition to the basic services will be itemized separately. Reimbursable expenses include mileage, long distance telephone calls, postage and handling, next day mail, preparation of materials for electronic transfer, hand delivery of materials, reproductions, photographs, prints, and any additional insurance coverage or limits (including professional liability insurance) requested in **excess** of that normally carried.

Costs relating to any outside services contracted directly by BIA will be passed on to the client and may have up to a 15% service charge.

When related to a project, the following rates will be charged for reimbursable expenses:  
Listed prices are for black and white prints only (additional charge for color prints).

Photocopies	\$0.08 per sheet
Large Format Copies	\$0.25 per square foot
Large Format Plotting (tiff,cal,plt,pdf,jpeg)	\$0.30 per square foot
Large Format Scans	\$0.35 per square foot
Large Format Plotting (dwg's)	\$0.50 per square foot

Above rates are subject to change if conditions warrant. Reimbursables subject to Sales Tax.

Effective: 1/1/11 - 12/31/11

**LEHIGH COUNTY AUTHORITY  
PARK PUMP STATION IMPROVEMENTS – NEW FUEL TANK  
PROJECT UNDERSTANDING**

Lehigh County Authority owns and operates the Park Pump Station located in the City of Allentown's Park System, along the Little Lehigh Creek. The Pump Station is a 20 MGD pumping station that is an integral part of the Western Lehigh Interceptor. Originally, the pump station, constructed in 1984, was equipped with an underground 8,000 gallon diesel fuel tank. In 2005, the fuel tank was found to be leaking and was subsequently removed. Currently, the facility is operating with a temporary above-ground tank. LCA desires to install an above-ground 8,000 gallon fuel tank surrounded by an aesthetically pleasing security wall that will hold in with the surroundings while providing adequate tank security.

The project goal is to prepare design specifications and drawings, prepare all necessary permit applications, and obtain the required permits so that LCA can publically advertise and receive bids for installing the new fuel storage tank in 2012.

**General Approach**

The key to successful project management is effective communication between engineer and client, and the ability to quickly identify and resolve issues that may surface during the design and approval process. To that end, we will immediately set up a kick-off meeting to develop a list of key items to address, and to develop strategies for each of those issues.

Inasmuch as a Pennsylvania Certified Tank Installer has certain obligations regarding notification to DEP and eventual sign off after installation, BIA will stipulate in the Contract Documents that the Tank Installer shall be responsible for registering the tank with DEP and shall pay all registration fees. BIA has a working relationship with a Pennsylvania certified tank installer and, if necessary, we will draw on this relationship should any items of concern be raised during the design of the fuel tank.

Looking ahead to the first 90 days of the engineering work, the following tasks are important and should be addressed, as follows:

**Days 1 through 14**

- Set up kick-off meeting
- Develop detailed project schedule
- Obtain property deeds and any easement agreements and plats
- Obtain the site plans for the Park Pump Station

**Days 15 through 45**

- Perform topographic survey & stake property boundaries
- Prepare design plans for new fuel tank installation (including E&S Control measures)

- Perform a PNDI search
- Prepare technical specifications
- Submit plans and technical specifications to LCA for review and comment
- Set up meeting with LCA to review plans and technical specifications
- Revise design plans as required
- Revise technical specifications as required
- Contact City of Allentown and complete required permit application forms
- Furnish 3 sets of plans and specifications to LCA for submittal to the City of Allentown for review and comment
- Address any comments from City by making final revisions as necessary
- Submit final plans and specifications in both hard copy and electronic forms to LCA for bidding purposes

#### Day 46 through 75

- Prepare advertisement for construction bidding (LCA to place ad in newspaper)
- Attend Pre-Bid meeting
- Issue minutes and or addenda pursuant to pre-bid meeting
- Hold a bid opening at LCA office
- Review bid proposals and make recommendations for award.

#### Days 76 through 180 (as may be requested by LCA)

- Review and stamp catalog cut sheets
- Prepare contract change orders if necessary
- Review Contractor's payment requests and make recommendation for payment.
- Be available for job site visits if requested

#### **Staffing**

This project will be managed by **Neal Kern, PE, PLS**, Barry Isett & Associates' (BIA) Department Head of Municipal Engineering. Upon receiving the notice to proceed, Neal will organize and run a kick-off meeting for the project team. During this meeting, the project scope will be clarified, and the project team will be introduced with responsibilities assigned. At this time, a detailed project schedule will also be determined.

Under the guidance of **Harry Garman, PE, PLS**, BIA will complete the design and technical specifications for the installation of the new fuel tank and review them with LCA and make any subsequent additions or revisions as necessary. **Bryan Smith, RLA** will oversee the design of a security wall and landscaping around the new tank so that it will be aesthetically pleasing and acceptable to LCA and the City. BIA will also assist LCA during the bidding process by preparing the advertisement for bids, attending a pre-bid meeting, preparing meeting minutes, answering bidder's questions, preparing addenda as necessary, attending the bid opening, reviewing the bids, certificate of insurance and required bonds, and making a recommendation for award of a construction contract.

During the Construction phase of the project, if requested by LCA, BIA will review Contractor's submittals consisting of project schedule and catalog cut-sheets and prepare any contract change orders that may be necessary. BIA will also review the Contractors payment applications and assist LCA project closeout.

**LEHIGH COUNTY AUTHORITY  
SUMMARY OF REVENUES & EXPENSES  
MONTH/YR: SEPTEMBER 2011**

	Total LCA Budget	Activity To Date	Current Yr % to Budget
<b><u>Operating Budget</u></b>			
<b>Operating Revenues:</b>			
Customer Charges	20,930,883	15,660,149	74.8%
Interest Income	105,395	43,856	41.6%
Cap Expense Reimbursement **	677,359	484,157	71.5%
Other Income	573,248	255,781	44.6%
<b>Total Op Revenues</b>	<b>22,286,885</b>	<b>16,443,943</b>	<b>73.8%</b>
<b>Operating Expenses:</b>			
Salaries & Wages	1,883,675	1,218,115	64.7%
Overtime	135,740	90,186	66.4%
Benefits	640,095	410,081	64.1%
Utilities	752,295	563,418	74.9%
Insurance	139,950	134,386	96.0%
Maintenance	723,140	320,172	44.3%
Engineering	138,900	21,226	15.3%
Legal/ Litigation	20,000	-	0.0%
Lab Analysis (External)	198,695	124,976	62.9%
Supplies & Equipment	705,955	338,957	48.0%
Other Services	5,668,260	4,036,198	71.2%
Treatment & Transportation	6,225,325	4,444,852	71.4%
Financing Expense	7,500	6,256	83.4%
Interest Expense	1,561,405	1,194,975	76.5%
Principal Reduction	1,910,375	1,430,223	74.9%
Coverage	393,112	296,340	75.4%
<b>Total Op Expenses</b>	<b>21,104,422</b>	<b>14,630,361</b>	<b>69.3%</b>
<b><u>Capital Budget</u></b>			
<b>Capital Revenues:</b>			
Other Income	10,000	64,224	642.2%
Meter Sales	103,030	63,818	61.9%
Water Tapping Fees	187,760	128,471	68.4%
Inspection & Plan Review	106,600	40,680	38.2%
WW Capital Recovery Fees	1,776,305	531,395	29.9%
Developer Contribution & Grant	2,095,550	710,780	33.9%
Borrowed Funds & Reserves	21,867,255	3,281,684	15.0%
<b>Total Capital Revenues</b>	<b>26,146,500</b>	<b>4,821,052</b>	<b>18.4%</b>
<b>Capital Expenditures:</b>			
Other/Contractor Costs	25,931,537	3,719,784	14.3%
LCA Costs *	1,172,862	1,101,268	93.9%
<b>Total Cap Expenditures</b>	<b>27,104,399</b>	<b>4,821,052</b>	<b>17.8%</b>

Note: This analysis does not include such line item expenses as Internal Services and Rental etc. These costs, which represent intrafund transfers are already included in other expenses above.

\* Includes Salaries, Overtime, Offtime, Benefits, Internal Service and Rental Costs.

\*\* Represents Capital share of Internal Services costs.

**LEHIGH COUNTY AUTHORITY 2011 BUDGET COMPARATIVE  
INTERNAL SERVICE FUND**

Pg 1

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	\$ Yr to Date	2011 Budget	% To Budget
<b>Revenues:</b>							
Svc Fee Allocation	474,357	355,037	399,255	-	1,228,649	1,841,060	66.7%
Interest Income	14	14	13	-	41	500	8.2%
Other Income	-	-	-	-	-	500	0.0%
<b>Total Revenues</b>	<b>474,371</b>	<b>355,051</b>	<b>399,268</b>		<b>1,228,690</b>	<b>1,842,060</b>	<b>66.7%</b>
<b>Expenses:</b>							
Salaries	192,155	133,535	199,626	-	525,316	845,010	62.2%
Overtime	2,377	1,467	7,258	-	11,102	4,500	246.7%
Benefits	74,612	40,945	64,917	-	180,474	268,570	67.2%
Telephone	3,907	3,258	3,402	-	10,567	12,725	83.0%
Postage	16,650	18,588	6,497	-	41,735	63,000	66.2%
Computer Services	26,485	21,068	6,670	-	54,223	69,280	78.3%
IT Consultant Services	-	-	-	-	-	-	
Advertising	167	89	1,476	-	1,732	4,000	43.3%
Building & Equipment Maint.	6,409	9,640	10,242	-	26,291	52,715	49.9%
Utilities	23,227	4,796	8,812	-	36,835	41,245	89.3%
Audit Fees	17,630	10,000	-	-	27,630	28,500	96.9%
Dues & Subscriptions	17,399	4,674	1,548	-	23,621	25,495	92.6%
Travel & Mileage	226	2,336	1,700	-	4,262	8,000	53.3%
Education & Training	21,914	16,067	5,784	-	43,765	48,000	91.2%
Worker's Comp.	6,791	6,792	269	-	13,852	19,200	72.1%
P & L Insurance	29,321	30,371	60,842	-	120,534	120,750	99.8%
Legal/Litigation Fees	-	-	-	-	-	20,000	0.0%
Miscellaneous	11,654	11,438	19,846	-	42,938	66,890	64.2%
Public Relations	3,420	9,663	3,367	-	16,450	52,925	31.1%
Maintenance Supplies	2,000	956	2,187	-	5,143	7,000	73.5%
Office Supplies	2,837	3,368	3,667	-	9,872	22,000	44.9%
Furniture & Equipment	15,192	14,286	2,856	-	32,334	47,955	67.4%
Op'r Ctr Improvement	-	-	-	-	-	7,300	0.0%
Other Studies	-	-	-	-	-	7,000	0.0%
<b>Total Expenses</b>	<b>474,373</b>	<b>343,337</b>	<b>410,984</b>		<b>1,228,674</b>	<b>1,842,060</b>	<b>66.7%</b>
<b>Net Revenue (Deficit)</b>	<b>(2)</b>	<b>11,714</b>	<b>(11,696)</b>		<b>16</b>		
<b>Rev/Exp Ratio</b>	<b>1.00</b>	<b>1.03</b>	<b>0.97</b>		<b>1.00</b>	<b>1.00</b>	
<b>Other Expenses:</b>							
Depreciation	8,751	8,751	8,751	-	26,253	35,000	75.0%
<b>Balance at Qtr end:</b>							
<b>Cash</b>	<b>\$ (124,999)</b>	<b>\$ (8,858)</b>	<b>\$ (40,971)</b>	<b>\$ -</b>			



# LEHIGH COUNTY AUTHORITY 2011 BUDGET COMPARATIVE WATER OPERATING REPORT

Pg 2

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	\$ Yr to Date	2011 Budget	% to Budget
<b>Revenues:</b>							
Large Industrial	117,267	148,442	155,898	-	421,407	618,735	68.1%
Other Ind/Comm	359,452	444,405	565,933	-	1,369,790	1,817,020	75.4%
Residential	690,448	691,829	872,231	-	2,254,308	3,049,210	73.9%
Penalties	12,046	9,111	10,879	-	32,036	-	-
Private Fire Svc.	145,242	146,767	146,020	-	438,029	576,115	76.0%
Public Fire Svc.	82,872	83,031	82,938	-	248,841	345,780	72.0%
Rental Income	25,241	28,951	30,730	-	84,922	134,000	63.4%
Interest Inc - Rev Fund	7,435	7,408	5,267	-	20,108	70,000	28.7%
Interest Inc - Debt Svc	5,684	4,375	4,814	-	14,773	17,700	83.5%
Other Income	6,077	139,872	23,074	-	169,023	301,393	56.1%
<b>Total Revenues</b>	<b>1,451,664</b>	<b>1,703,989</b>	<b>1,897,884</b>		<b>5,993,287</b>	<b>6,928,933</b>	<b>72.9%</b>
<b>Expenses:</b>							
Salaries	163,877	148,464	175,929	-	488,270	745,925	65.5%
Overtime	16,637	13,475	24,592	-	54,704	91,300	59.9%
Benefits	63,190	43,060	55,231	-	161,471	265,935	60.7%
Internal Services	224,019	146,877	174,097	-	544,993	865,610	63.0%
Utilities	132,425	81,278	133,504	-	347,207	502,915	69.0%
Engineering	2,214	4,469	1,838	-	8,521	36,000	23.7%
External Lab Analysis	5,677	39,033	47,265	-	91,975	126,900	72.5%
Maintenance Svcs.	11,674	44,755	52,588	-	108,917	339,300	32.1%
Extraordinary Leak Restoration	17,899	1,848	21,266	-	41,003	68,000	70.7%
Ind Meter Testing	-	-	-	-	-	6,710	0.0%
Operational Services	6,220	9,390	8,615	-	24,225	36,600	66.2%
Miscellaneous Svcs.	24,993	8,621	6,474	-	40,088	46,490	86.2%
Water Purchases	126,414	143,235	165,278	-	434,927	633,080	68.7%
Supplies	40,048	38,572	40,083	-	118,683	238,335	49.8%
Fuel & Mileage	4,161	14,223	17,090	-	35,474	64,255	55.4%
Equipment	6,314	7,663	9,345	-	23,322	97,595	23.9%
Interest Expense	351,366	354,458	357,510	-	1,063,334	1,393,715	76.3%
Financing Fees	1,658	3,974	824	-	6,256	7,500	83.4%
Principal Reduction	279,824	280,199	280,577	-	840,600	1,117,556	75.2%
<b>Total Expenses</b>	<b>1,476,510</b>	<b>1,889,584</b>	<b>1,971,876</b>		<b>4,438,970</b>	<b>6,693,721</b>	<b>66.5%</b>
<b>Net Revenue (Deficit)</b>	<b>(26,846)</b>	<b>(320,406)</b>	<b>(325,708)</b>		<b>(445,683)</b>	<b>(266,242)</b>	
<b>Rev/Exp Ratio</b>	<b>0.98</b>	<b>1.23</b>	<b>1.21</b>		<b>1.35</b>	<b>1.04</b>	
<b>Debt Svc Coverage</b>	<b>0.98</b>	<b>1.60</b>	<b>1.61</b>		<b>1.33</b>	<b>1.11</b>	
<b>Other Expenses:</b>							
Depreciation	675,000	675,000	675,000	-	2,025,000	2,700,000	75.0%
<b>Balances at Qtr end:</b>							
Cash	\$ 2,881,427	\$ 2,358,948	\$ 2,515,432	\$ -			
Investments	\$ 3,743,839	\$ 3,744,000	\$ 3,751,000	\$ -			

# LEHIGH COUNTY AUTHORITY 2011 BUDGET COMPARATIVE WATER CAPITAL

Pg 3

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	\$ Yr to Date	2011 Budget	Project Costs To Date
<b>Revenues:</b>							
Meter Sales	21,116	19,931	22,771	-	63,818	103,030	
Water Tapping Fees	31,390	40,655	56,426	-	128,471	187,760	
Inspection & Review Fees	6,425	24,453	27,614	-	58,392	100,000	
Other Income	4,755	50,160	7,640	-	62,555	10,000	
Reimbursement from Other Entities	-	-	-	-	-	155,750	
Reimb. From WW Funds	-	-	3,571	-	3,571	183,500	
Grants / Special Loan	-	298,300	-	-	298,300	298,300	
<b>Total Revenues</b>	<b>63,686</b>	<b>433,499</b>	<b>117,922</b>		<b>615,007</b>	<b>1,038,340</b>	
<b>Expenses:</b>							
Water Co. Acquisitions General	5,234	(228)	840	-	5,848	25,000	-
Capital Management	27,781	22,071	27,165	-	77,017	105,000	-
Capital Works Supplies & Software	797	5,261	206	-	6,264	14,000	-
Distr. Mains & Svc Connect.	23,044	14,645	11,725	-	49,414	105,000	-
System Planning	19,188	16,888	15,215	-	51,291	65,000	-
Distr. Mains - Upsizings	76,810	6	-	-	76,816	160,000	-
GIS Data Conversion/Updates/Acq	23,177	35,101	51,674	-	109,952	253,000	-
Distr. Sys. Improvements	-	-	-	-	-	15,000	-
Allentown Interconnections (A)	334,256	153,457	71,261	-	558,974	4,800,000	4,713,442
System Hydraulic Modeling	35,263	26,413	22,437	-	84,113	58,000	-
New Water Meter Installations	9,729	28,378	29,533	-	67,640	116,000	-
Mobile Equipment	-	-	45,783	-	45,783	51,000	-
Other Equipment	-	-	5,105	-	5,105	60,000	-
Computer Sys Hardware & Software	-	16,899	-	-	16,899	30,000	-
Schantz Spring Rd Main Extension	-	-	-	-	-	261,000	-
IT Master Plan Update	3,384	2,855	38,671	-	44,910	322,000	58,848
Energy Efficiency Study	1,848	289	519	-	2,656	350,500	6,543
Water Main Replacements	6,809	5,193	2,783	-	14,785	820,000	32,892
SCADA Prog Hardware Upgrade	-	-	2,523	-	2,523	148,000	-
Small System Improvements	7,855	2,937	14,415	-	25,207	409,000	-
Knowledge Management	5,144	47,644	82,758	-	115,546	194,500	-
Regional Groundwater Model	-	-	-	-	-	105,000	-
Project Mgmt Approach Standard	-	-	596	-	596	35,000	-
Radio Read Upgrades Mtr Change	238,312	54,184	650,742	-	943,238	2,834,000	1,997,771
Reservoir Rehabilitation Contract	-	-	-	-	-	107,000	-
Groundwater Rule - Well St. Assessmnt	15,640	150,915	9,018	-	175,573	630,000	-
Water Facility Emerg Backup Power	-	-	975	-	975	39,000	-
Water Main Relocations	1,895	2,754	4,928	-	9,577	72,000	35,873
Miscellaneous Project (B)	(9,363)	16,281	8,274	-	15,192	-	-
<b>Total Expenses</b>	<b>826,803</b>	<b>601,945</b>	<b>1,077,146</b>		<b>2,505,894</b>	<b>12,184,000</b>	
<b>Cash Reserves &amp; Borrowed Funds</b>	<b>763,117</b>	<b>168,446</b>	<b>959,224</b>		<b>1,890,787</b>	<b>11,145,660</b>	
<b>Balances at Qtr end:</b>							
Cash	\$ 1,391,727	\$ 1,073,657	\$ 1,526,632	\$ -			
Investments	\$ 9,000,000	\$ 9,150,000	\$ 8,400,000	\$ -			

(A) Includes and Phases 1 & 2 and System Improvements resulting from interconnections.

(B) Includes New Operation Center Expansion, Well #8 & 12 Upgrades and financing costs.

**LEHIGH COUNTY AUTHORITY 2011 BUDGET COMPARATIVE  
WASTEWATER FUND  
WESTERN LEHIGH INTERCEPTOR OPERATING REPORT**

Pg 4

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	\$ Yr to Date	2011 Budget	% to Budget
<b>Revenues:</b>							
User Charges (A)	1,577,467	1,631,988	1,663,722	-	4,873,177	6,313,093	77.2%
Interest Inc - Rev	372	662	535	-	1,569	1,700	92.3%
Other Income	3,096	19,858	20,431	-	43,385	76,000	57.1%
<b>Total Revenues</b>	<b>1,580,935</b>	<b>1,652,508</b>	<b>1,684,688</b>	<b>-</b>	<b>4,918,132</b>	<b>6,390,793</b>	<b>77.0%</b>
<b>Expenses:</b>							
Salaries	28,707	31,519	34,477	-	94,703	153,320	61.8%
Overtime	2,465	1,946	2,917	-	7,328	14,685	49.9%
Benefits	11,064	9,015	10,302	-	30,381	53,125	57.2%
Internal Services	42,380	33,899	34,888	-	111,147	178,815	62.2%
Utilities	4,387	5,511	6,756	-	16,654	24,330	68.4%
Engineering	-	-	3,819	-	3,819	102,500	3.7%
Flow Monitoring Network	-	-	-	-	-	-	-
Exc Str Anal - External	5,347	9,744	11,574	-	26,665	55,535	48.0%
Maintenance Svcs.	6,349	8,659	8,983	-	23,991	71,820	33.4%
Treatment & Transp. (B)	704,325	704,325	750,000	-	2,158,650	3,542,215	60.9%
County Tmt/Removals (B)	336,150	427,825	470,364	-	1,234,339	1,259,120	98.0%
Miscellaneous Svcs	1,648	1,168	2,601	-	5,417	3,850	140.7%
Rental Charges	7,918	8,759	8,439	-	25,116	40,550	61.9%
I/I Rehabilitation	-	-	-	-	-	20,000	0.0%
Fuel & Mileage	767	2,623	2,934	-	6,324	9,235	68.5%
Misc Supplies	1,130	7,061	2,329	-	10,510	27,030	38.9%
Equipment	21,873	24,901	22,292	-	69,066	113,280	61.0%
Financing Expense	-	-	-	-	-	-	-
Interest Expense	25,902	27,773	27,492	-	81,167	100,915	80.4%
Principal Reduction	82,691	105,049	105,380	-	293,130	391,904	74.8%
System Planning	35,527	32,001	32,001	-	99,529	150,000	66.4%
<b>Total Expenses</b>	<b>1,918,610</b>	<b>1,441,768</b>	<b>1,537,497</b>	<b>-</b>	<b>4,297,875</b>	<b>6,312,239</b>	<b>68.1%</b>
<b>Net Revenue (Deficit)</b>	<b>262,325</b>	<b>210,740</b>	<b>147,191</b>	<b>-</b>	<b>620,256</b>	<b>78,554</b>	<b>789.1%</b>
<b>Rev/Exp Ratio</b>	<b>1.20</b>	<b>1.15</b>	<b>1.10</b>	<b>-</b>	<b>1.14</b>	<b>1.01</b>	<b>113.9%</b>
<b>Debt/Service Coverage</b>	<b>3.42</b>	<b>2.59</b>	<b>2.11</b>	<b>-</b>	<b>2.86</b>	<b>1.18</b>	<b>242.4%</b>
<b>Other Expenses:</b>							
Depreciation	121,977	115,977	118,977	-	356,931	475,900	75.0%
<b>Balances at Qtr end:</b>							
Cash	\$ 1,545,372	\$ 1,662,850	\$ 2,667,480	\$ -			
Investments	\$ -	\$ -	\$ -	\$ -			

**LEHIGH COUNTY AUTHORITY 2011 BUDGET COMPARATIVE  
WASTEWATER FUND  
LITTLE LEHIGH RELIEF INTERCEPTOR - PH 1 OPERATING REPORT**

Pg 5

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	\$ Yr to Date	2011 Budget	% to Budget
<b>Revenues:</b>							
User Charges (A)	91,062	101,026	106,633	-	298,721	265,765	112.4%
Interest Inc - Rev	121	93	89	-	303	1,000	30.3%
Other Income	-	-	891	-	891	700	127.3%
<b>Total Revenues</b>	<b>91,183</b>	<b>101,119</b>	<b>107,613</b>	<b>-</b>	<b>299,915</b>	<b>267,465</b>	<b>112.1%</b>
<b>Expenses:</b>							
Salaries	3,618	12,543	7,970	-	24,131	22,925	105.3%
Overtime	1,825	2,511	1,208	-	5,542	11,360	48.8%
Benefits	2,018	4,345	2,469	-	8,832	10,920	80.9%
Internal Services	7,381	16,805	8,143	-	32,329	36,335	89.0%
Engineering	-	-	-	-	-	400	0.0%
Utilities	22,708	56,210	35,575	-	114,493	121,565	94.2%
Fuel Spill Remediation	-	800	800	-	1,600	26,200	6.1%
Maintenance Svcs.	3,882	3,273	5,878	-	13,033	21,120	61.7%
Miscellaneous Svcs	694	132	765	-	1,591	165	964.2%
Rental Charges	947	2,489	2,495	-	5,931	8,335	71.2%
Fuel & Mileage	121	415	463	-	999	3,460	28.9%
Misc Supplies	400	4,037	(705)	-	3,732	3,350	111.4%
Equipment	-	800	3,839	-	4,439	17,550	25.3%
<b>Total Expenses</b>	<b>43,594</b>	<b>104,160</b>	<b>68,897</b>	<b>-</b>	<b>216,651</b>	<b>283,985</b>	<b>76.4%</b>
<b>Net Revenue (Deficit)</b>	<b>47,589</b>	<b>(3,041)</b>	<b>38,716</b>	<b>-</b>	<b>83,264</b>	<b>(16,520)</b>	
<b>Rev/Exp Ratio</b>	<b>2.09</b>	<b>10.97</b>	<b>1.56</b>	<b>-</b>	<b>1.38</b>	<b>0.94</b>	
<b>Other Expenses:</b>							
Depreciation	22,551	22,551	22,551	-	67,653	90,200	75.0%
<b>Balances at Qtr end:</b>							
Cash	\$ 344,872	\$ 333,935	\$ 372,266	\$ -			
Investments	\$ -	\$ -	\$ -	\$ -			

**LEHIGH COUNTY AUTHORITY 2011 BUDGET COMPARATIVE  
WASTEWATER FUND  
LITTLE LEHIGH RELIEF INTERCEPTOR - PH 2 OPERATING REPORT**

Pg 6

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	\$ Yr to Date	2011 Budget	% to Budget
<b>Revenues:</b>							
Interest Inc - Rev	775	890	1,030	-	2,695	3,000	89.8%
Other Income	-	-	(25,286)	-	(25,286)	20,225	
<b>Total Revenues</b>	<b>775</b>	<b>890</b>	<b>(24,256)</b>		<b>(22,592)</b>	<b>23,225</b>	<b>97.8%</b>
<b>Expenses:</b>							
Salaries	535	210	2,818	-	3,561	2,845	125.2%
Overtime	18	-	18	-	34	700	4.9%
Benefits	167	89	834	-	1,070	1,130	94.7%
Internal Services	749	151	3,018	-	3,918	3,710	105.6%
Maintenance Svcs.	-	-	19,137	-	19,137	2,500	
Miscellaneous Svcs	36	381	87	-	484	550	88.0%
Rental Charges	241	112	173	-	526	865	60.8%
Fuel & Mileage	14	49	54	-	117	175	66.9%
Misc Supplies	-	-	200	-	200	750	26.7%
Equipment	-	-	-	-	-	10,000	0.0%
<b>Total Expenses</b>	<b>1,758</b>	<b>872</b>	<b>28,318</b>		<b>29,046</b>	<b>23,225</b>	<b>125.1%</b>
<b>Net Revenue (Deficit)</b>	<b>(983)</b>	<b>(62)</b>	<b>(50,573)</b>		<b>(51,638)</b>		
<b>Rev/Exp Ratio</b>	<b>0.44</b>	<b>0.92</b>	<b>(0.92)</b>		<b>(0.78)</b>	<b>1.00</b>	
<b>Other Expenses:</b>							
Depreciation	13,626	13,626	13,626	-	40,878	54,500	75.0%
<b>Balances at Qtr end:</b>							
Cash	\$ 281,748	\$ 116,872	\$ 91,290	\$ -			
Investments	\$ 192,000	\$ 340,000	\$ 340,000	\$ -			

**LEHIGH COUNTY AUTHORITY 2011 BUDGET COMPARATIVE  
WASTEWATER FUND  
COMMON RATE COLLECTOR SYSTEMS OPERATING REPORT**

Pg 7

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	\$ Yr to Date	2011 Budget	% to Budget
<b>Revenues:</b>							
User Charges	140,329	143,199	146,435	-	429,963	600,905	71.6%
Interest Income	354	230	254	-	838	5,000	16.8%
Other Income	7,364	10,456	12,434	-	30,254	54,725	55.3%
<b>Total Revenues</b>	<b>148,047</b>	<b>153,885</b>	<b>159,122</b>		<b>461,054</b>	<b>660,630</b>	<b>69.8%</b>
<b>Expenses:</b>							
Salaries	14,951	15,584	15,083	-	45,608	60,240	75.7%
Overtime	2,417	2,072	5,153	-	9,642	11,090	86.9%
Benefits	6,133	4,740	5,568	-	16,441	22,730	72.3%
Internal Services	5,512	4,568	3,749	-	13,829	25,285	54.7%
Utilities	11,332	9,380	9,921	-	30,633	38,155	80.3%
Treatmt & Transp.	51,569	55,422	58,304	-	163,295	224,790	72.6%
Contract Operating Svcs	5,064	8,047	8,648	-	21,759	30,000	72.5%
Lab Analyses	1,268	1,540	1,127	-	3,925	6,845	59.1%
Maintenance Svcs.	7,602	17,249	7,457	-	32,308	75,600	42.7%
Miscellaneous Svcs	842	716	646	-	2,204	1,980	112.4%
Rental Charges	1,140	1,135	1,080	-	3,355	5,395	62.2%
Fuel & Mileage	335	1,149	1,281	-	2,765	4,040	68.4%
Misc Supplies	2,987	4,877	1,416	-	9,280	21,370	43.4%
Equipment	-	1,908	1,209	-	3,115	17,400	17.9%
General System Planning	179	-	-	-	179	2,650	6.8%
Interest Expense	9,169	9,093	9,122	-	27,384	36,335	75.4%
Principal Reduction	13,472	13,554	13,837	-	40,863	59,385	68.5%
<b>Total Expenses</b>	<b>193,952</b>	<b>161,042</b>	<b>141,980</b>		<b>496,974</b>	<b>645,070</b>	<b>76.9%</b>
<b>Net Revenue (Deficit)</b>	<b>4,095</b>	<b>2,843</b>	<b>17,142</b>		<b>34,080</b>	<b>51,560</b>	<b>66.1%</b>
<b>Rev/Exp Ratio</b>	<b>1.41</b>	<b>1.02</b>	<b>1.13</b>		<b>1.08</b>	<b>1.03</b>	
<b>Debt Service Coverage</b>	<b>1.52</b>	<b>1.09</b>	<b>1.78</b>		<b>1.51</b>	<b>1.18</b>	
<b>Other Expenses:</b>							
Depreciation & Amortiz.	26,664	26,664	26,664	-	79,992		
<b>Balances at Qtr end:</b>							
Cash	\$ 821,386	\$ 692,417	\$ 116,783	\$ -			
Investments	\$ 55,000	\$ 55,000	\$ 55,000	\$ -			

**LEHIGH COUNTY AUTHORITY 2011 BUDGET COMPARATIVE  
WASTEWATER FUND  
ARCADIA WEST OPERATING REPORT**

Pg 8

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	\$ Yr to Date	2011 Budget	% to Budget
<b>Revenues:</b>							
User Charges (A)	40,320	46,591	44,044	-	130,955	174,000	75.3%
Interest Inc - Rev	43	26	25	-	94	500	18.8%
Other Income	-	-	-	-	-	-	-
<b>Total Revenues</b>	<b>40,363</b>	<b>46,617</b>	<b>44,069</b>	<b>-</b>	<b>131,049</b>	<b>174,500</b>	<b>75.1%</b>
<b>Expenses:</b>							
Salaries	1,373	1,284	867	-	3,524	9,590	36.7%
Overtime	225	48	233	-	504	1,195	42.2%
Benefits	568	341	280	-	1,199	3,435	34.9%
Internal Services	433	258	187	-	878	2,505	35.1%
Utilities	1,624	420	569	-	2,613	4,495	58.1%
Contract Operating Services	-	-	-	-	-	-	-
External Lab Analysis	-	1,932	45	-	1,977	4,815	42.8%
Maintenance Svcs.	16,919	15,062	18,658	-	50,639	87,150	58.1%
Miscellaneous Svcs	79	266	82	-	427	160	266.6%
Rental Charges	77	80	71	-	228	525	43.4%
Fuel & Mileage	44	150	168	-	362	925	39.1%
Misc Supplies	900	-	(900)	-	-	1,000	0.0%
Equipment	-	-	900	-	900	2,000	45.0%
<b>Total Expenses</b>	<b>22,242</b>	<b>17,882</b>	<b>21,139</b>	<b>-</b>	<b>63,240</b>	<b>117,565</b>	<b>53.8%</b>
<b>Net Revenue/Deficit</b>	<b>18,121</b>	<b>28,735</b>	<b>22,930</b>	<b>-</b>	<b>67,809</b>	<b>56,935</b>	<b>119.1%</b>
<b>Rev/Exp Ratio</b>	<b>1.81</b>	<b>2.35</b>	<b>2.08</b>	<b>-</b>	<b>2.02</b>	<b>1.48</b>	<b>136.5%</b>
<b>Other Expenses:</b>							
Depreciation	3,501	3,501	3,501	-	10,503	14,000	75.0%
<b>Balances at Qtr end:</b>							
Cash	\$ 105,704	\$ 94,445	\$ 111,561	\$ -			
Investments	\$ -	\$ -	\$ -	\$ -			

**LEHIGH COUNTY AUTHORITY 2011 BUDGET COMPARATIVE  
WASTEWATER FUND  
WASTEWATER TREATMENT PLANT OPERATING REPORT**

Pg 9

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	\$ Yr to Date	2011 Budget	% to Budget
<b>Revenues:</b>							
Hauler Fees	440,172	593,028	501,100	-	1,534,300	2,000,000	76.7%
Industrial Charges	682,980	721,482	664,307	-	2,048,769	3,078,000	66.6%
Penalties	23,647	14,915	8,096	-	47,658	12,000	397.2%
Excess Removal Credits	336,150	427,826	470,364	-	1,234,340	1,883,000	73.3%
Other Income	4,779	3,709	2,742	-	11,230	4,800	234.0%
Interest Income	670	1,218	1,407	-	3,295	5,000	65.9%
<b>Total Revenues</b>	<b>1,468,398</b>	<b>1,762,278</b>	<b>1,649,016</b>		<b>4,879,592</b>	<b>8,782,800</b>	<b>71.8%</b>
<b>Expenses:</b>							
Salaries	10,672	12,360	6,932	-	29,964	35,370	84.7%
Overtime	-	-	-	-	-	-	-
Benefits	3,823	3,323	1,766	-	8,912	11,270	79.1%
Internal Services	14,468	12,705	5,469	-	32,642	38,475	84.8%
Engineering & Contract Services	982,249	1,034,022	1,038,394	-	3,054,665	4,163,500	73.4%
Treatment & Transportation	227,685	290,073	319,807	-	837,565	1,129,200	74.2%
Permit/Regulatory	-	-	-	-	-	15,000	0.0%
Lab Analysis	-	-	434	-	434	5,000	8.7%
Maintenance Svcs.	585	-	1,422	-	2,007	1,275	157.4%
Miscellaneous Svcs	46,247	17,546	26,304	-	90,097	142,105	63.4%
Rental Charges	2,504	2,923	2,726	-	8,153	4,375	186.4%
Misc Supplies	662	-	-	-	662	3,500	18.9%
Equipment	-	-	-	-	-	-	-
<b>Total Expenses</b>	<b>1,288,895</b>	<b>1,372,962</b>	<b>1,403,254</b>		<b>4,065,101</b>	<b>5,649,070</b>	<b>73.3%</b>
<b>Net Revenue (Deficit)</b>	<b>179,503</b>	<b>389,226</b>	<b>245,762</b>		<b>814,491</b>	<b>1,333,730</b>	
<b>Rev/Exp Ratio</b>	<b>1.14</b>	<b>1.26</b>	<b>1.18</b>		<b>1.20</b>	<b>1.22</b>	
<b>Other Expenses:</b>							
Amortization	762,510	762,510	762,510	-	2,287,530	1,450,000	157.8%
<b>Balances at Qtr end:</b>							
Cash	\$ 1,701,577	\$ 1,751,996	\$ 1,793,839	\$ -			
Investments	\$ -	\$ -	\$ -	\$ -			



**LEHIGH COUNTY AUTHORITY 2011 BUDGET COMPARATIVE  
WASTEWATER FUND  
WASHINGTON TOWNSHIP OPERATING REPORT**

Pg 10

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	\$ Yr to Date	2011 Budget	% to Budget
<b>Revenues:</b>							
User Charges (A)	88,907	95,154	94,053	-	278,114	364,280	76.3%
Interest Inc - Rev	52	52	35	-	139	175	79.7%
Other Income	549	120	329	-	998	2,950	33.8%
<b>Total Revenues</b>	<b>89,508</b>	<b>95,326</b>	<b>94,417</b>	<b>-</b>	<b>279,251</b>	<b>367,405</b>	
<b>Expenses:</b>							
Salaries	912	817	1,308	-	3,037	8,450	35.9%
Overtime	183	369	778	-	1,330	910	
Benefits	367	342	592	-	1,301	2,980	43.7%
Internal Services	1,485	1,206	2,066	-	4,757	10,285	46.2%
Utilities	1,575	1,159	1,884	-	4,418	6,865	64.4%
Contract Operating Services	2,490	2,490	2,490	-	7,470	11,500	65.0%
Treatment & Transportation	17,001	17,001	17,001	-	51,003	70,000	72.9%
External lab Analysis	-	-	-	-	-	-	
Maintenance Svcs.	-	1,238	1,608	-	2,846	6,950	40.9%
Miscellaneous Svcs	1,927	1,412	678	-	4,017	4,080	98.9%
Rental Charges	391	368	339	-	1,098	2,275	48.3%
Fuel & Mileage	42	145	101	-	288	510	56.4%
Misc Supplies	71	149	637	-	857	1,740	49.2%
Equipment	-	515	-	-	515	1,500	34.3%
Interest Expense	7,930	7,717	7,503	-	23,150	30,440	76.1%
Principal Reduction	85,063	85,277	85,490	-	255,830	341,530	74.9%
<b>Total Expenses</b>	<b>119,437</b>	<b>120,205</b>	<b>122,274</b>	<b>-</b>	<b>361,916</b>	<b>489,995</b>	
<b>Net Revenue/(Deficit)</b>	<b>(29,929)</b>	<b>(24,879)</b>	<b>(27,857)</b>	<b>-</b>	<b>(82,664)</b>	<b>(122,590)</b>	
<b>Rev/Exp Ratio</b>	<b>0.75</b>	<b>0.79</b>	<b>0.77</b>	<b>-</b>	<b>0.77</b>	<b>0.73</b>	
<b>Other Expenses:</b>							
Depreciation	3,699	3,699	3,699	-	11,097	14,800	
<b>Balances at Qtr end:</b>							
Cash	\$ 124,871	\$ 4,043	\$ 40,990	\$ -			
Investments	\$ -	\$ -	\$ -	\$ -			

**LEHIGH COUNTY AUTHORITY 2011 BUDGET COMPARATIVE  
WASTEWATER CAPITAL**

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	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	\$ Yr to Date	2011 Budget	Project Costs To Date
<b>Revenues:</b>							
Capacity Fees	122,095	134,525	76,861	-	333,281	862,690	
Capital Recovery Fees	64,355	80,994	41,332	-	186,681	520,240	
Collection & Connection Fees	3,681	7,772	-	-	11,433	393,375	
Grant	180,080	205,149	-	-	385,229	1,455,000	
Inspection & Plan Review Fees	3,577	(21,329)	40	-	(17,712)	6,600	
Reimb. From Other Funds	23,680	-	-	-	23,680	3,000	
Miscellaneous	30	1,494	145	-	1,669	-	
<b>Total Revenues</b>	<b>397,478</b>	<b>408,606</b>	<b>118,178</b>	<b>-</b>	<b>924,297</b>	<b>3,240,905</b>	
<b>Expenses:</b>							
Interceptor Facility Hydraulic Model	258	356	-	-	614	105,000	-
Jordan Creek Wastewater System	17,891	45,754	35,357	-	99,002	1,130,000	246,085
Financing	-	673	246	-	919	55,000	-
PPS Force Main Upgrade	-	-	-	-	-	155,000	-
Park Pump Station Improvements	-	1,093	3,333	-	4,426	510,000	30,820
Plan Review & Inspection	9,287	9,535	2,589	-	21,391	6,000	-
Sewer System Acquisitions	11,907	5,062	4,652	-	21,621	20,000	-
Signatory I/I Investigation & Remed.	102,778	104,057	148,300	-	353,135	1,200,000	2,152,636
Mobile Equipment	-	14,745	-	-	14,745	29,600	-
Other Equipment	-	-	-	-	-	50,000	-
Sand Spring Manhole Rehab.	-	-	-	-	-	52,000	5,980
System Planning & Capital Mgmt	2,532	6,091	4,887	-	13,510	29,000	-
Vera Cruz Corridor	110,255	241,981	643,108	-	995,342	4,800,000	1,429,377
Western Lehigh Interceptor Rehab	-	-	392	-	392	723,000	392
Wastewater TP Improvements	80,742	205,517	208,968	-	495,227	700,000	495,227
WTP Flow Equalization Basins	6,084	4,484	5,191	-	15,739	8,000	5,483,760
WLI Capacity Development	45,437	35,501	34,924	-	115,862	1,400,000	115,862
Western Welsenberg WWTP	42,510	26,299	5,657	-	74,467	2,300,000	252,769
Small System Improvements	2,999	1,958	9,586	-	14,523	575,000	-
Methane Gas & Energy Eff Study	37,088	11,057	22,429	-	70,574	115,000	-
Miscellaneous Projects	1,708	1,761	200	-	3,669	-	-
<b>Total Expenses</b>	<b>471,456</b>	<b>716,924</b>	<b>1,127,778</b>	<b>-</b>	<b>2,316,158</b>	<b>13,962,500</b>	
<b>Cash Res &amp; Borrowed Funds</b>	<b>73,978</b>	<b>307,319</b>	<b>1,009,800</b>	<b>-</b>	<b>1,390,897</b>	<b>10,721,595</b>	
<b>Balances at Qtr end:</b>							
Cash	\$ 741,347	\$ 1,258,620	\$ 598,412	\$ -			
Investments	\$ 6,322,000	\$ 6,562,000	\$ 7,522,429	\$ -			

