

LEHIGH COUNTY AUTHORITY

June 20, 2011

### **BOARD MEETING AGENDA**

- 1. Call to Order
- 2. Review of Agenda
  - Public Participation Sign-In Request
- 3. Executive Sessions
- 4. Approval of Minutes
  - May 9, 2011 Workshop Meeting Minutes
  - May 23, 2011 Regular Meeting Minutes
  - June 13, 2011 Workshop Meeting Minutes
- 5. Public Comments
- 6. Action / Discussion Items

#### FINANCE AND ADMINISTRATION

- Lehigh Valley Special Capital Recovery Fees Resolution 6-2011-3 (Approval)
- Wastewater Capital Recovery Fees Resolution 6-2011-4 (Approval)

#### <u>WATER</u>

• None

#### WASTEWATER

- Long-term Wastewater Capacity Options Analysis (Presentation)
- 7. System Operations Overview
- 8. Staff Comments
- 9. Solicitor's Comments
- 10. Other Comments
- 11. Adjournment

#### MARCH MEETINGS

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

#### PUBLIC PARTICIPATION POLICY

In accordance with Authority policy, members of the public shall record their name, address, and discussion item on

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

#### FINANCE & ADMINISTRATION

#### **ACTION ITEMS**

#### 1. Lehigh Valley South Special Capital Recovery Fees (Approval)

The new fee schedule requires Board approval, and Resolution 6-2011-3 must be adopted to establish the new rates for the special tapping fees for the Lehigh Valley South Industrial Park. These special tapping fees are additional to all other water capital recovery fees due for Central Lehigh Division customers. The resolution with schedule as an exhibit is attached (*blue*).

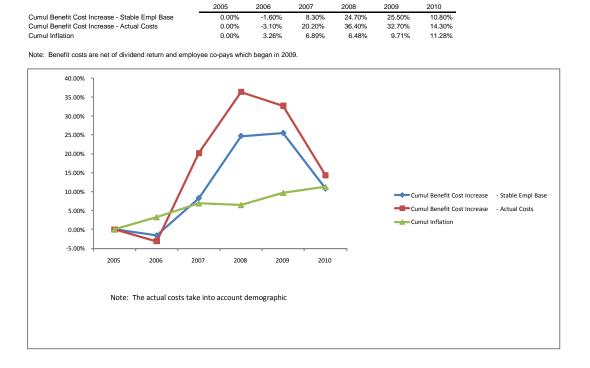
#### 2. <u>Wastewater Capital Recovery Fees</u> (Approval)

The new fee schedule for capital recovery fees for wastewater systems requires Board approval; Resolution 6-2011-4 is included for consideration and must be adopted to establish the new rates. The resolution with schedule as an exhibit is attached *(salmon)*.

#### **DISCUSSION ITEMS**

#### 1. <u>Health Benefits</u>

We just received notice of a \$94,510 dividend return from the Pennsylvania Municipal Health Insurance Cooperative for favorable 2010 claims experience. This dividend represents 21.3% of the annual premium. The following table and graph reflect how net health insurance costs have tracked versus inflation during the past 5 years.



As shown, the cumulative cost increase has closely mirrored the inflation trend.

#### **INFORMATION ITEMS**

#### 1. <u>Recently Purchased Investments – Certificates of Deposit (CDs)</u>

Fund	Bank	Location	Gross Amount	Date of Purchase	Date Due	Rate %
WDSR	Discover Bank	Greenwood, De	99,000.00	5/11/11	5/13/13	0.900
Cons LL2 (314)	Orrstown Bank	Ра	245,000.00	5/16/11	5/14/12	0.800
LLRI CR	American Express Centurion Bank	Salt Lake City, Ut	98,000.00	6/2/11	12/13/12	0.850
WW Capac	CIT Bank	Salt Lake City, Ut	240,000.00	6/2/11	12/13/12	0.750
Cons Wtr (2)	Vist Bank	Wyomissing, Pa	155,000.00	6/10/11	12/10/12	0.650
Cons Wtr (2)	Beal Bank	Plano, Tx	196,000.00	6/22/11	6/20/12	0.300

Fund Descriptions for Investments:

WW Capac	Wastewater Capacity
LLRI CR	Little Lehigh Relief Interceptor Capital Reserves
WDSR	Water Debt Service Reserve
Cons Wtr (2)	Consolidated Water 2
Cons LL2 (314)	Consolidated Little Lehigh Relief Interceptor 2

#### 2. Knowledge Management (KM)

EMA and the internal KM Team are continuing to conduct needs assessment activities to complete this phase of the project to develop a KM program. A workforce practices assessment was conducted to determine gaps in LCA's programs that may impact KM. All employees participated in a two-week work catalog process, which will be used to develop a knowledge map and social network analysis at an upcoming KM Team workshop in June. All employees are participating in an online survey to evaluate organizational readiness to implement a KM program. EMA expects to present preliminary recommendations in June, with a final report presented to the Board in July.

#### 3. <u>Customer Growth</u>

#### **Customer Growth**

Figures for customer growth through March 2011 are indicated below:

	As of	As of	2011	2011	2010
	12/31/10	3/31/11	-	Projections	
Water		0,0,,,,	, (autorio		/ launono
Central Lehigh (A)					
Residential	16,720	16,804	84	315	488
Commercial/Industrial	593	594	1	11	15
<u>Emmaus</u>					-
Residential	409	409	-	1	1
Commercial/Industrial	9	9	-	-	-
North Whitehall	-	-			
Residential	1,078	1,078	-	4	3
Commercial/Industrial	53	53	-	2	-
Washington Twp				-	
Residential	425	427	2	3	2
Commercial/Industrial	15	15	-	-	-
Northampton County SA	10	10			
Residential	67	67	-	-	-
Lynn Twp	0.	01			
Residential	176	176	-	-	116
Heidelberg Htgs					
Residential	191	191	-	-	-
Beverly Hills		101			
Residential	44	44	-	_	-
Total Water	19,780	19,867	87	336	625
Wastewater	13,700	13,007	07	000	020
Upper Milford					
Residential (B)	456	460	4	154	8
Commercial/Industrial (B)	31	31	_ '	25	-
Weisenberg Twp	51	51		20	
Residential	146	146	-	_	-
Commercial/Industrial	14	140	_	_	3
Heidelberg Heights	14	17			0
Residential	145	145	-	_	-
North Whitehall Twp	145	143	_	-	_
Residential	465	465	-	_	-
Commercial/Industrial	11	11	_	_	_
Washington Twp			_	-	_
Residential	551	553	2	_	2
Commercial/Industrial	24	24	_	_	-
Total Wastewater	1,843	1,849	- 6	- 179	- 13
	1,040	1,049	0	179	10
Wastewater Allocation (gals) *	10,628,272	10,639,045	10,773	120,865	135,269

\* Additions include allocation purchased net of allocation returned (223 gals) to the general pool.

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

(B) 2011 Projection includes 1/2 of Vera Cruz connections

#### **ACTION ITEMS**

#### 1. None.

#### **DISCUSSION ITEMS**

1. None.

#### **INFORMATION ITEMS**

#### 1. Water Meter Replacement Project

<u>Phase 1</u> - Vanguard Utility Service, Inc. completed their remaining work on May 20. The Phase 1 project has reached substantial completion. We will conduct QC checks on the completed work through the end of June and provide Vanguard a punch list of any remaining items that need to be addressed. Vanguard will prepare a final application for payment to submit for our approval.

<u>Phase 2</u> - We received a notice to proceed with the Phase 2 project from PA-DEP following their review of efforts by the Authority and T.S.E., Inc. to solicit Disadvantaged Business Enterprise (DBE) firms. T.S.E., Inc. has executed the contract documents. We expect to execute them on June 20. A "Meter and Radio-Read Meter Transceiver Unit Supply Agreement" was concluded with HD Supply Waterworks. A pre-construction meeting is scheduled for June 21.

The PENNVEST settlement date is scheduled for June 29.

#### 2. Interconnection with Allentown

<u>Phase 1 - Connection at Schantz Spring</u> – Testing of the emissions from the emergency generator engine proved compliance with EPA regulations. The third-party testing service sent their report to DEP for review. DEP has said that the report will probably be reviewed in July.

<u>Phase 2 - Connection to City Transmission System at 26<sup>th</sup> and Chew Streets</u> – Livengood Excavators is working to provide the necessary contract documents. At a preconstruction meeting held on June 15, Livengood indicated that they would like to mobilize during the week of July 4 and begin laying pipe on July 11 starting with the 12" main in Schantz Road (near Schantz Spring).

#### 3. <u>Water Main Replacement Project 2011 – Oakland Park (UMT)</u>

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 and possibly apply for a NPDES permit prior to the start of construction. We have solicited proposals from engineering firms to complete this work for us. As NPDES approvals typically take multiple months, if a NPDES is required, we will have to delay the start of this project until we have a permit in hand. If that is the case, we do not anticipate a construction start date any earlier than next spring. Otherwise, we may be able to go out to bid later this summer for a late summer/early fall construction period.

#### 4. <u>Water Main Relocation Project – Slatedale</u>

PaDOT is widening the bridges on West Grant and Main Streets in Slatedale and our water facilities will be impacted by this effort. Work was slated to start sometime near the end of May and will begin on West Grant Street. Demolition of an existing structure has

delayed the start of work. Our exposure, by PaDOT Agreement, is about \$25,000.

#### 5. <u>CLD Water System Model</u>

Gannett Fleming continues to calibrate the model. They are also analyzing the interconnection with the City of Allentown.

#### 6. WL-1 Tank Replacement

Construction activity began on March 17, 2011. The work is now complete, final approval by DEP was received on June 8, 2011.

#### 7. <u>Developments</u>

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:

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, UMiIT, 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) Trexlertown Shopping Center Remodeling/Expansion, 1 commercial lot, LMT/UMT Weilers Road Twins, 82 residential lots (sfa), UMT West Hills Business Center, 5 industrial lots, WeisT Woodmere Estates, 60 residential units (sfd), UMT Wotring North Development, 20 residential units (sfd), UMT

#### **ACTION ITEMS**

#### 1. None.

#### DISCUSSION ITEMS

#### 1. <u>Wastewater Capacity Options Analysis</u> (Presentation)

An analysis of the wastewater capacity options including the social, environmental and economic factors related to each of the four options will be presented at the Board Meeting.

#### **INFORMATION ITEMS**

#### 1. Flow Equalization Basin (FEB)

Staff is working with PennVest to finalize all numbers. PennVest will be conducting an audit of the project in the near future. A documentation audit was conducted on June 16 and the project files were found to be in full compliance with the regulatory and funding agency requirements.

#### 2. <u>Vera Cruz Area Sewer Project</u>

Work continues, with directional boring completed in Shimersville Road and portions of Mill Road. Work within the PaDOT roads was initiated on June 13. Substantial Completion and Final Completion are December 30, 2011 and February 28, 2012, respectively.

#### 3. Infiltration and Inflow (I&I) Program Update

The 537 plan revisions and SCARP submitted to the DEP in March of 2010 have not been approved to date. Mr. Fritz of DEP indicated several months ago that the approval would be granted a few weeks later but it has not been issued to date. We did receive a DEP revision to Chapter 4 of the SCARP which details how the allocation flow credits will be handled. The revision is not acceptable to LCA and a letter detailing our position was sent to DEP. We have not received a response to date.

The majority of the SSES field work has been completed in the Signatory municipalities including basement inspections. Malcolm Pirnie will soon begin the evaluation of the results.

#### 4. <u>Wastewater Treatment Capacity</u>

The life cycle costs for the four options are expected to be completed prior to the Board Meeting and will be included in the presentation.

Factors other than cost are currently being analyzed for each of the four options. This analysis includes environmental, social and political factors.

The steering committee is expected to meet again in July or August. Updates will be provided on the DRBC effluent standards, cost estimates, life cycle costs, Natural Treatment and Non-Stream Discharge Wastewater Alternatives Report and short term allocation leasing.

An RFP for completing the Act 537 Planning is being prepared by Malcolm Pirnie. It is expected that the RFP will be issued within the next month.

#### 5. <u>WTP Energy Audit</u>

Phase I of the study completed by CET Engineers was presented to the Board at the February workshop. The report included an economic evaluation of the excess biogas

production including a comparison of selling the excess biogas to Kraft Foods or utilizing the biogas on-site at the WTP. Kraft indicated that they are no longer interested in purchasing the LCA biogas due to the project not being economically feasible for them.

The report pointed out a conflict between the calculated biogas production and the actual biogas production. In March, additional sampling and analysis of the digester waste streams was conducted to confirm the potential for gas production. CET Engineers has evaluated the data and this new data confirms that the calculated gas production is consistent with the actual gas production.

The conclusion of the report indicated that installation of the co generation equipment to utilize the biogas is economically viable if certain improvements to the plant result in increased gas production. Phase II of the study looks mean in depth -\*at the potential for producing additional biogas.

Phase II of the study is near completion and includes an evaluation of other energy improvement/energy efficiency measures and ways to optimize digester performance and the hauler waste program for increased biogas production. The LCA team is currently reviewing the draft report. It is expected that the recommendations will be presented to the Board in July.

The LCA package wastewater treatment plants were also evaluated in Phase III. It does not appear from the draft report that any energy improvements will be cost effective at the small plants.

#### 6. Arcadia West Wastewater Treatment Plant Upgrade

Bids were received on March 17 for the General Construction, Electrical Construction and Mechanical and Plumbing Construction contracts. The General Construction bid was designed as a Base Bid with Add/Deduct Alternates. PaDEP has concluded that the bid documents, do not comply with PennVEST's "or-equal" policy. We responding by pointing out what we believe to be PaDEP's mis-interpretations and have asked them to reconsider their decision. We are awaiting a reply.

#### 7. 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 for the proposed property use by the Zoning Hearing Board. The hearing before the Zoning Hearing Board began on May 18 with two hours of testimony and questions. The hearing will continue on June 22.

(2) We are having details of the permitting process with both DRBC and PaDEP.

Baring any regulatory delays we expect to have the wastewater treatment plant operational by October 2013. The total cost of the WTP including soft costs is estimated at \$4.69 million.

#### Conveyance Facilities

(1) Wal-Mart's engineer, the Newton Engineering Group is proceeding with the 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 will be constructing these facilities and dedicating them to LCA. A cost-sharing agreement is 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.

#### WORKSHOP MEETING MINUTES May 9, 2011

The Workshop Meeting of the Lehigh County Authority was called to order at 12:20 p.m., on Monday, May 9, 2011, Chairman Asa Hughes presiding. Other Members present at the commencement of the meeting were: Thomas Muller, Brian Nagle, Emrich Stellar, Norma Cusick, Richard Bohner, and Scott Bieber. Authority Staff present were: Aurel Arndt, Doug Young, Bradford Landon, Frank Leist, Patricia Mandes, Liesel Adam, Joseph McMahon, Emily Gerber, and Cristin Keppel.

Also in attendance were Craig Murray from Malcolm Pirnie, Inc; Patrick Kirk and Nathan Swartz from Zelenkofske Axelrod, LLC; and David Walbert from PA-DEP's Bethlehem office.

#### Agenda Review

Mr. Arndt stated the agenda items would be reviewed in a different order than listed on the agenda and proposed the following order: Financial Statements, Wastewater Capacity Presentation, and Boston Beer Company Agreement. Mr. Arndt also informed the Board that the Authority received a \$1 million grant from the H2O-PA program for the Vera Cruz Sanitary Sewer project. He noted that the grant requirements are being reviewed and acceptance of the grant is being discussed with Upper Milford Township at this time. Mr. Arndt also explained that Lynn Township voted to transfer their sewer system to the Authority; however, the Lynn Township Sewer Authority still needs to make a decision on how that authority wants to proceed.

#### 2010 Audited Financial Statements (Acceptance)

Mr. Young introduced Messrs. Kirk and Swartz from Zelenkofske Axelrod, LLC, the Authority's auditor.

Mr. Kirk stated the Authority had a clean audit for 2010. He noted that some items in the financial statements are changed because of some new Government Accounting Standards Board (GASB) requirements for 2010. Mr. Kirk also stated that some items look different because the Authority opened up an OPEB (Other Post-Employment Benefits) Trust Fund account, which requires a new schedule in the statements. He continued to briefly highlight the statements, stating there was additional debt for capital projects in 2010 and an actuarial study will be required for 2011 to analyze the new assets.

Mr. Hughes congratulated Mr. Young and the Authority for receiving recognition from GFOA for excellence in financial reporting.

Mr. Young recognized Linda Eberhardt, Accounting Supervisor, for her work on the Financial Statements.

As Chairman of the Audit committee, Mr. Stellar commended the Authority for their financial planning and documentation efforts for 2010.

On a motion from Mr. Stellar, seconded by Mr. Muller, the Board unanimously accepted the 2010 Audited Financial Statements.

Messrs. Kirk and Swartz left the meeting at 12:37 pm.

#### Long-term Wastewater Capacity Presentation

Ms. Mandes stated the Authority now has the majority of the information needed to make a decision on developing an additional 4 MGD of capacity. The goal for making that decision is by the end of 2011 and the updated cost estimates are available in the presentation by Malcolm Pirnie, Inc (MPI). She

noted that several other updates related to capacity are the NTA evaluation, which will be presented by Castle Valley Consultants at the May Board Meeting; steering committee representatives have discussed LCA's need for temporary allocation with several of the City's Signatories. This has opened the door for negotiations with South Whitehall Township; and additional capacity has become even more critical because Ocean Spray has decided to relocate in the Authority service area.

Craig Murray, from MPI, reviewed the attached presentation (Presentation 1). He briefly reviewed the drivers behind the need for more wastewater capacity and the steps taken to determine the best options. Mr. Murray noted that cost estimates for each of the four possible options have changed as more research has been completed including DRBC changes regarding "grandfathered" loadings triggered by the Special Protection Waters designation and needed conveyance upgrades. Mr. Murray stated that all cost estimates are more detailed at this point, but other factors will determine final costs for each option. Extensive discussion followed.

Mr. Nagle asked if there has been an analysis of the environmental and societal impacts on each of the four options included in the planning process.

Mr. Murray indicated that the Wastewater Capacity Steering Committee will be looking at those issues.

Mr. Arndt also indicated that those issues will need to be addressed in the Act 537 Planning process for each of the options. Discussion followed.

Mr. Murray left the meeting at 1:32 p.m.

#### Boston Beer Company Agreement (Discussion)

Mr. Arndt began discussion by noting Boston Beer has loaned 200,000 gpd of wastewater allocation to the Authority to be used for Ocean Spray's new location in the service area that will be returned to Boston Beer upon obtaining more capacity through the Wastewater Capacity Planning process.

Ms. Mandes referred to the attached presentation (Presentation 2) to summarize the terms of the Boston Beer Company (BBC) Agreement. She noted that Boston Beer has been operating under the Diageo agreement dated September 1, 2005, since they went on line in 2007. As per the agreement, Boston Beer requested an extension of the term of the agreement for a renewal period of five years commencing on May 15, 2011. The Authority and Boston Beer have been negotiating the agreement since July of 2010 and anticipate a final understanding in the near future. Ms. Mandes explained that an amendment to the existing Diageo agreement will be drafted and presented to the Board for review and approval once it is finalized. She then reviewed the details of the agreement via the presentation and explained how the new approach benefits the Authority and BBC. Discussion followed.

Mr. Arndt noted that an extension on the May 15, 2011 deadline for negotiations will be necessary to finalize the negotiations, which Mr. Arndt plans to grant unless there is a Board objection. The Board raised no objection.

There being no further business, the Chairman adjourned the meeting at 2:20 p.m.

Richard H. Bohner Secretary

#### REGULAR MEETING MINUTES May 23, 2011

The Regular Meeting of the Lehigh County Authority was called to order at 12:21 p.m. on Monday, May 23, 2011, Chairman Asa Hughes presiding. Other Members present at the commencement of the meeting were: Tom Muller, Richard Bohner, Emrich Stellar, Brian Nagle, Norma Cusick, and Scott Bieber. Authority Staff present were: Aurel Arndt, Bradford Landon, Pat Mandes, Frank Leist, Douglas Young, Liesel Adam, and Cristin Keppel.

Tom Kelso of Castle Valley Consultants and Gary Birks and Matt Appleman from Senator Pat Browne's office were also in attendance.

#### **REVIEW OF AGENDA**

Mr. Arndt stated that the first quarter financial statements will be presented following the regular agenda items.

#### EXECUTIVE SESSION

Mr. Arndt stated there would be no executive sessions.

#### **APPROVAL OF MINUTES**

#### April 25, 2011 Regular Meeting Minutes

On a motion by Mr. Bohner, seconded by Ms. Cusick, the Board unanimously approved the minutes of the April 25, 2011 Regular Meeting (7-0).

#### **ACTION AND DISCUSSION ITEMS**

#### Risk Management Annual Report (Acceptance)

Mr. Young gave an overview of the Risk Management Annual Report, noting that there are two aspects of the report: risk control/safety and financial/insurance management. He noted that the Authority had a favorable year on the safety side, with only one claim. Mr. Young explained that property insurance costs increased in 2010 because a property appraisal was completed and the Authority had been underinsured prior to the property appraisal.

On a motion by Mr. Muller, seconded by Mr. Bohner, the Board unanimously accepted the 2010 Risk Management Annual Report (7-0).

#### Long-term (Phase 2) Water Interconnection with City of Allentown (COA) (Approval)

Mr. Leist gave a background of Phase 2 of the COA interconnection at 26<sup>th</sup> and Chew Streets in Allentown. He explained that the water service contract with the COA approved in January 2009 calls for the long-term interconnection to be in place by December 31, 2012, the two year anniversary of the completion of the interim interconnection at Schantz Spring. The construction for this Phase is anticipated to begin in August 2011, with a 10-month construction period; there is a 6-month reserve period for schedule slippage. Mr. Leist explained that a PSA Amendment is needed for the Design Phase for Barry Isett & Associations (BIA) to increase the amount by \$26,296 to reflect payment for out-of-scope activities and added-value changes to the scope after their proposal was prepared.

On a motion from Mr. Bohner, seconded by Ms. Cusick, the Board unanimously approved the Professional Services Authorization Amendment for Barry Isett & Associates (7-0).

Mr. Leist explained that a Capital Project Authorization Amendment is needed for the construction phase of the project.

On a motion from Mr. Muller, seconded by Ms. Cusick, the Board unanimously approved the CPA Amendment for the Long-term Water Supply Interconnection with the City of Allentown project for \$3,850,000 (7-0).

Mr. Leist continued, noting that Livengood Excavators are recommended for the contract award for this project, conditioned upon receipt of necessary documentation. He stated that the Authority has worked with Livengood before and has been pleased with their work.

On a motion from Mr. Stellar, seconded by Ms. Cusick, the Board unanimously approved a construction contract award for Livengood Excavators in the amount of \$3,063,473.24, contingent upon receipt of necessary permits, proper bonds, and insurance documents (7-0).

Mr. Leist stated that a Professional Services Authorization is needed for the Construction Phase of the project for stakeout, construction observation, and construction engineering for the transmission main. He recommended BIA for this work with a not-to-exceed cost of \$133,589. He also noted they were the lowest bidder and he would prefer to use the design engineer as the construction engineer.

On a motion from Mr. Muller, seconded by Ms. Cusick, the Board unanimously approved a PSA for Barry Isett & Associates for the Construction Phase of the Allentown Interconnection, Phase 2 (7-0).

# Long-term Wastewater Capacity – Non-stream Discharge Wastewater (WW) Alternatives (Presentation)

Ms. Mandes stated that a land application evaluation has been completed by Castle Valley Consultants as part of the WW Capacity Planning Program. Also, DEP and DRBC require a natural treatment alternatives analysis for Act 537 planning and Special Protection Waters, respectively.

Mr. Kelso gave an overview of the land application analysis of the Authority service area via the attached Presentation. He noted that the study area was extended into Berks County, specifically the Longswamp Township area, because that is an area with potentially available open land. Mr. Kelso explained the details of physical feasibility of the study area and the cost analysis of each viable land application option. He noted that the options include a drip irrigation system and a non-centralized approach via small package treatment plants. Some discussion followed regarding possible properties in the area and/or combining some of the options for discharge.

After extensive discussion and questions by the Board, Ms. Mandes stated that Authority staff, Malcolm Pirnie, and Castle Valley will come up with a matrix to show feasibility and bottom line cost of each of the options.

#### Arcadia West Treatment Plant Upgrade

Mr. Bohner asked for more information regarding Wastewater Information Item 7.

Mr. Leist explained that although bids were taken for the project, there was a protest from a Wastewater Treatment Plant manufacturer regarding the "alternatives" provision for certain components of the project. PA-DEP is reviewing the bid documents in detail to determine if the project must be rebid. The deadline for the contract award is July 17<sup>th</sup>; the contractors are all aware of the situation and there has not been any protest thus far from the low bidders if the project must be rebid.

#### SYSTEM OPERATIONS OVERVIEW

No comments.

#### STAFF COMMENTS

#### First Quarter 2011 Unaudited Financial Statements (Acceptance)

Mr. Young distributed and reviewed the first quarter statements. He noted that OPEB (Other Post-Employment Benefits trust fund account) is now listed under "other assets", and there is a noticeable difference in Restricted Cash and CDs because they are now included in "investments". Mr. Young also noted that water usage is typically lower in the first quarter, but that usually increases in the second and third quarters. He also indicated that the rate increases will become effective in the second quarter, which will have a significant impact on the water revenues.

On a motion from Mr. Stellar, seconded by Mr. Muller, the Board unanimously accepted the First Quarter 2011 Unaudited Financial Statements (7-0).

#### SOLICITOR'S COMMENTS

Solicitor Landon had no comments.

#### OTHER COMMENTS

None.

#### EXECUTIVE SESSION

There were no executive sessions.

#### **ADJOURNMENT**

There being no further business, the Chairman adjourned the meeting at 2:16 p.m.

Richard H. Bohner Secretary

#### WORKSHOP MEETING MINUTES June 13, 2011

The Workshop Meeting of the Lehigh County Authority was called to order at 12:04 p.m., on Monday, June 13, 2011, Chairman Asa Hughes presiding. Other Members present via telephone at the commencement of the meeting were: Brian Nagle, Norma Cusick, Richard Bohner. Authority Staff present were: Aurel Arndt (via telephone), Doug Young, Bradford Landon, Frank Leist, Patricia Mandes, and Cristin Keppel. All persons present via telephone were able to hear each other and communicate with each other throughout the entire meeting and remained present through the entire meeting once that member connected to the meeting conference call.

#### Agenda Review

Mr. Arndt stated a discussion regarding Long-term Wastewater Capacity Planning should be added to the Board Discussion Items listing for the June Board meeting.

A roll call was taken with each action item to confirm each vote on the following approvals.

#### Water Meter Replacement Project, Year 2 - Contract Award and Resolution 6-2011-1 (Approval)

Mr. Leist referred to the information attached to the agenda, giving a brief overview of the second phase of the Water Meter Replacement Project. He explained that T.S.E., Inc is recommended to receive the construction contract for this project and HD Supply will be the meter supplier again for this phase. Mr. Leist explained that the PennVEST loan received for this project will save the Authority roughly \$800,000 over the life of the loan.

Messrs. Stellar and Bieber entered the meeting via telephone at 12:09 p.m.

On a motion from Ms. Cusick, seconded by Mr. Bohner, the Board unanimously approved a Capital Project Authorization for the Meter Replacement Project, Year 2 in the amount \$1,736,290 (6-0).

On a motion from Mr. Nagle, seconded by Ms. Cusick, the Board unanimously approved Construction Contract Awards for TSE, Inc. in the amount of \$741,280 for general construction and HD Supply Waterworks, Ltd. in the amount of \$618,470 for meters and radio-read units (6-0), authorizing the appropriate staff members to execute all necessary documents for the project.

Mr. Landon noted that a Resolution is needed to authorize the acceptance of the PennVEST funding.

On a motion from Mr. Stellar, seconded by Mr. Bieber, the Board unanimously approved Resolution 6-2011-1, authorizing the securing of PennVEST funding for \$1,647,453 to finance the cost of the Water Meter Replacement Project, Year 2, and authorized the appropriate staff members to execute and process transactions and documents for the financing.

#### Vera Cruz Sanitary Sewer Project Reimbursement – Resolution 6-2001-2 (Approval)

Mr. Landon explained that approval of a resolution declaring the official intent of Lehigh County Authority to reimburse its non-borrowed funds used to pay the Vera Cruz Sanitary Sewer Project Costs from project financing proceeds the Authority may receive from H2O-PA or other financings.

On a motion from Mr. Stellar, seconded by Ms. Cusick, the Board unanimously approved Resolution 6-2011-2 for the Vera Cruz Sanitary Sewer Project and authorized the appropriate staff members to execute and process transactions and documents in regard to the corresponding financial matters (6-0).

There being no further business, the Chairman adjourned the meeting at 12:21 p.m.

# RESOLUTION NO. 6-2011-3

(Duly adopted 27 June 2011)

### A RESOLUTION ESTABLISHING THE LEHIGH COUNTY AUTHORITY SPECIAL TAPPING FEE FOR THE LEHIGH VALLEY SOUTH INDUSTRIAL PARK

WHEREAS, Lehigh County Authority ("Authority") is a Pennsylvania municipal authority incorporated by the County of Lehigh in accordance with the Municipality Authorities Act to provide, among other services, water and wastewater services; and

WHEREAS, the Authority owns and operates water and wastewater systems throughout the Lehigh Valley of Pennsylvania; and

WHEREAS, the Authority charges certain rates and fees for use of and connection to its systems; and

WHEREAS, a water main extension was constructed to serve the Lehigh Valley South Industrial Park ("LVSIP") in Lower Macungie Township in 1998; and

WHEREAS, a special tapping fee was established to recoup costs for the LVSIP main extension through future water system connections within LVSIP; and

WHEREAS, it is necessary to re-establish this fee in accordance with §5607 of the Municipality Authorities Act, as amended by legislative action in December 2003, setting forth the appropriate fee components; and

WHEREAS, the Authority has calculated the allowable basis for such fee in accordance with the attached calculations (Appendix A) and its Summary of Tapping, Connection and Customer Facilities Fees, the current version of which, as well as any future changes thereto, is made a part hereof as if included herein.

NOW THEREFORE, the Lehigh County Authority, pursuant to powers invested in it by the Pennsylvania Municipality Authorities Act hereby resolves that the special tapping fee for LVSIP shown on Appendix A, attached hereto and made a part hereof, is adopted effective this date. This special tapping fee shall be paid in addition to all other applicable Authority capital recovery fees, i.e. those for the Authority's Central Lehigh Division of its water system.

On motion of \_\_\_\_\_, seconded by \_\_\_\_\_, this Resolution was adopted the 27<sup>th</sup> day of June 2011.

### Appendix A Lehigh Valley South Industrial Park Special Tapping Fee

Cost Basis: Payment to Jaindl LCA Costs thru 1998	\$	158,500 2,667
LCA % Share	\$	161,167 75%
LCA cost share	\$	120,875
Accrued Interest (A)		51,399
Total Cost Basis	\$	172,274
Linear feet of Main - Segment 1		2,466.5
Linear feet of Main per EDU		30
Cost per EDU (B)	<b>.</b>	2,095.37
Current Charge per EDU (Adopted 7/1/05)	\$	1,919.55
	. <u></u>	

(A) Calculated from substantial completion of 5/27/98.

(B) Total Cost Basis divided by linear feet of main multiplied by linear ft of main/EDU. Per agreement, an EDU is equal to 220 gallons per day.

Payments received thru 12/31/10 = \$39,382.13.

# RESOLUTION NO. 6-2011-4

(Duly adopted 27 June 2011)

### A RESOLUTION ESTABLISHING THE VARIOUS COMPONENTS OF THE LEHIGH COUNTY AUTHORITY CAPITAL RECOVERY FEES FOR ITS VARIOUS WASTEWATER SYSTEMS.

WHEREAS, Lehigh County Authority ("Authority") is a Pennsylvania municipal authority incorporated by the County of Lehigh in accordance with the Municipality Authorities Act to provide, among other services, water and wastewater services; and

WHEREAS, the Authority owns and operates water and wastewater systems throughout the Lehigh Valley of Pennsylvania, and

WHEREAS, the Authority charges certain rates and fees for use of and connection to its systems; and

WHEREAS, the Authority desires to establish its fees in accordance with §5607 of the Municipality Authorities Act, as amended by legislative action in December 2003, setting forth the appropriate fee components for the capital recovery fees for its various wastewater systems; and

WHEREAS, the Authority has calculated the allowable basis for such fees in accordance with the attached calculations (Exhibits D through H) and the Authority's Summary of Tapping, Connection and Customer Facilities Fees, the current version of which, as well as any future changes thereto, is made a part hereof as if included herein; and

NOW THEREFORE, the Lehigh County Authority, pursuant to powers invested in it by the Pennsylvania Municipality Authorities Act, as amended, hereby resolves that:

1. The capital recovery fees for service in the Authority's various wastewater systems as indicated in the exhibits, attached hereto and made a part hereof, are adopted effective 1 July 2011.

2. The Authority's Schedule of Wastewater Rates and Charges shall be amended to reflect the fees hereby adopted.

On motion of \_\_\_\_\_\_, seconded by \_\_\_\_\_\_, this Resolution was adopted the 27<sup>th</sup> day of June 2011.

Experiment      Experimont      Experimont      Experim		ANNUAL SUMMARY OF	MARY OF	<b>r</b> -	VING, C	ONNECTION	TAPPING, CONNECTION AND CUSTOMER FACILITIES FEES	STOMER	FACILITIE	S FEES	
Per Callon      Per Callon      Per EU        Charge      Char	·				WAS EF	FECTIVE 7	3 FUND 7/1/11				
Clarge      Existing      Mainturn      New      Existing      Mainturn      New      Callege      Clarge      Callege      Clarge      Cla				Pel	Gallon	-		Per EDU			
Interceptor System:      National classicity      National classicity	Exhibit		Existin Charge			Charge	Existing Charge	Maximum Charge	New Charge	Gallons per EDU	Costing Method
Wastewater Capacity      5      4.71      5      4.71      5      4.71      5      4.71      5      4.71      5      1060.33      5      1060.33      5      1060.33      5      1060.33      5      1060.33      5      1060.33      1060.33      1060.33      1060.33      1060.33      1060.33      1060.33      1060.33      1060.33      1060.33      1060.33      1060.33      1060.33      1060.33      1060.33      1060.33      1060.33      1060.33      1060.33      1060.35      1060.33      1060.35      1060.36		Interceptor System:									
Western Leigh Interceptor      210      210      468.30      250 <td>۲</td> <td>Wastewater Capacity</td> <td></td> <td></td> <td>4.71</td> <td></td> <td></td> <td></td> <td></td> <td>223</td> <td>Historical Trended Cost</td>	۲	Wastewater Capacity			4.71					223	Historical Trended Cost
Little Lehigh Relef Interceptor      084      084      084      167:32      187:32	മ	Western Lehigh Interceptor	3	10	2.10	2.10	468.30	468.30	468.30	223	Historical Trended Cost
Total Western Leingh Service Area      7.55      7.65      7.65      1.705.95      2.50 <th2.50< th="">      2.50      2.50<td>ပ</td><td>Little Lehigh Relief Interceptor</td><td>0</td><td>84</td><td>0.84</td><td>0.84</td><td>187.32</td><td>187.32</td><td>187.32</td><td>223</td><td>Historical Trended Cost</td></th2.50<>	ပ	Little Lehigh Relief Interceptor	0	84	0.84	0.84	187.32	187.32	187.32	223	Historical Trended Cost
Upper Mitricit Collector System:      53      7.36      7.47.5 (modelloc)      7.60 (modelloc)      7.50 (modelloc)		Total Western Lehigh Service Area	-2	65	7.65	7.65	1,705.95	1,705.95	1,705.95		
Collection Part      5.90      7.38      6.08      1,475.00      1,975.00      1,57600      220        Capacity Part - Univer      0.83      8,40      8,40      8,40      8,40      2,100      2,10000      2,00000      2,00000      2,000		Upper Milford Collector System:									
Capacity Part      Capacity Part      Capacity Part      Capacity Part      Consolity P	۵	Collection Part	Ċ.	06	7.36	6 08	1,475.00	1,840.00	1.520.00	250	Historical Trended Cost
Capacity Part - Other Capacity Part - Other Capacity Part - Lower Macungie      0.89      0.90      0.90      0.90      222.50      225.00      22500      226      23        Capacity Part - Lower Macungie      207      214      207      214      234      511.46      516.46      238      238      238      238      238      238      238      238      238      238      238      238      248      238      248      238      248      238      248      238      248      238      248 <td< td=""><td>۵</td><td>Capacity Part</td><td>ø</td><td>53</td><td>8.40</td><td>8.40</td><td>2,132.50</td><td>2,100.00</td><td>2,100,00</td><td>250</td><td>Historical Trended Cost</td></td<>	۵	Capacity Part	ø	53	8.40	8.40	2,132.50	2,100.00	2,100,00	250	Historical Trended Cost
Capacity Part - Lower Macungie      2.07      2.14      2.04      3.146      511.46	۵	Capacity Part - Other	ō	89	0.90	<u>.</u>	222.50	225.00	225:00	250	Historical plus Financing Costs
Heidelberg Heights Collector System:      141      208      515.84      5508      516.86      516.84      5508      248        Collection Part      1      1      2      39.86      515.84      5508      248        Collection Part      1      10.35      15.34      100.00      2,566.80      3.804.32      2.207.55      247        Collection Part      8.84      10.03      1.5.34      914      2,1112      3.584.45      5506      247        Winnewood Terrace Collector System:      8.86      9.14      914      2,188.42      2.257.56      7.07.53      247        Collection Part      8.86      9.14      914      2,188.42      3.53.33      366.33.57      247        Collection Part      2      2.33.33      366.33.57      363.357      247        Total Winnwood Terrace      3.24      3.56      5.58      5.58      5.53.28      5.77.9      277.57.9        Total Sand Spring      Collecton Part      2.01      2.24      3.53.28      5.47      5.58      5.56.58      5.73.86      5.73.85	۵	Capacity Part - Lower Macungie	N	07	2.14	2.14	494.73	511.46		239	Historical Trended Cost
Collection Part      141      2.08      146      349.68      515.84      552.06      248        Capacity Part      Total Heidelberg Heights      83.94      13.26      92.4      2.17.12      3.288.48      2.20155      248        Vimmewood Terrace Collector System:      8.94      13.26      9.14      2.18.42      2.257.58      2.217.12      3.284.48      2.20155      248        Wymewood Terrace Collector System:      8.86      9.14      14.71      14.77      3.532.22      3.63.33      2.755.9      2.775.9      2.47        Collection Part      5.40      5.51      1.373.20      3.532.22      3.633.37      .6533.37      .6733.37      .6733.37      .6733.37      .6733.37      .6733.37      .6733.37      .6733.37      .6743      .		Heidelberg Heights Collector System:			206313						
Capacity Part      Capacity Part      8.94      13.26      9.24      2.217.12      3.288.48      2.201.52      248        Total Heideberg Heights      10.35      15.34      00/00      2.566.80      3.804.32      2055.60      3.804.32      2055.60      247        Wynnewood Terrace Collector System:      8.86      9.14      5.40      5.17      1.375.79      247        Collection Part      5.40      5.17      1.375.70      2.833.37      3653.357      247        Collection Part      5.40      5.17      1.4.26      1.4.71      1477      3.522.22      3.633.37      3653.35      247        Collection Part      2.01      2.24      3.34      3.522.22      3.633.37      3653.35      247        Collection Part      2.01      2.24      3.34      3.522.22      3.633.37      3653.35      247        Collection Part      2.14      3.352.22      3.633.37      3.653.36      247        Collection Part      2.13      3.733.20      2.47      2.52      5.53.35      247        Total Sand Sprint      2.	ш	Collection Part	÷	41	2.08	Sec. 2.1.46	349.68	515.84	362.08	248	Historical Trended Cost
Total Heidelberg Heights      10.35      15.34      60700      2,566.80      3,04.32      2265566      2 <th2< th="">      2      <th2< th=""></th2<></th2<>	ш	Capacity Part	8.	94	13.26	9.24	2,217.12	3,288.48	2.291.52	248	Historical Trended Cost
Wymewood Terrace Collector System:      8.86      9.14      5.17      5.18      2.257.58      2.2758      2.47        Collection Part      5.40      5.57      1.333.80      1.375.79      7.357.95      247        Collection Part      5.40      5.57      5.533.80      1.375.79      7.375.79      247        Capacity Part      2.01      2.24      3.522.22      3.633.37      3.6635.59      247        Capacity Part      2.01      2.24      2.04      6.86.47      553.28      5.498      247        Colaction Part      2.01      2.24      3.34      3.34      2.05      247        Colaction Part      2.01      2.24      3.34      3.34      800.28      247        Colaction Part      2.01      2.24      3.34      3.36.55      1.266.75      1.376.26      777        Colaction Part      2.13      2.13.66.75      1.376.26      5.35.86      5.376      247        Colaction Part      2.13      2.12.55      5.58      5.53.8      2.475.96      2.475.96      2.475.96		Total Heidelberg Heights	10.	35	15.34	10,70	2,566.80	3,804.32	2,653,60		
Collection Part      8.86      9.14      974      2,188.42      2,257.58      2725758      247        Capacity Part      5.40      5.57      5.57      5.57      5.57      5.57      5.57      5.47      247        Total Wynnwood Terrace      14.26      14.71      1/8771      3,522.22      3,633.37      7653.33      267      247        Total Wynnwood Terrace      2.01      2.24      3.34      3.34      3.522.22      3,633.37      7653.33      247        Sand Spring Collector System:      2.01      2.24      3.34      3.34      5.36      5.53      5.53      5.53      5.53.28      5.53.28      5.53.28      5.53.28      5.53.28      247        Collection Part      2.01      2.24      2.24      486.47      553.28      5.53.28      5.53.28      5.53.28      5.53.28      5.47      5.53.28      5.53.28      5.47      5.53.28      5.47      5.53.28      5.47      5.53.28      5.47      5.56      5.47      5.56      5.47      5.56      5.47      5.56      5.47      5.56		Wynnewood Terrace Collector System:						14930			
Capacity Part      5.40      5.57      6557      1,333.80      1,375.79      71375.79      247        Total Wynnwood Terrace      14.26      14,11      14714      14774      3,522.22      3,633.37      3653.37      247        Collection Part      2.1      2.24      3.34      3.34      3.35      874.98      1.378.26      177.50      2477.30      2477.350      2477      247      747      747      747      747      747      747      747      747      747      747	iL.	Collection Part	Ø	86	9.14	- 14	2,188.42	2,257.58	-2:257.58	247	Historical Trended Cost
Total Wynnwood Terrace      14.26      14.71      14.77      3,522.22      3,633.37      3653.35      3653.35      3653.35      3653.35      3653.35      3653.35      3653.35      3653.35      3653.35      3653.35      3653.35      3653.35      247        Collection Part      2.01      2.24      3.34      3.33      3.33      3.33      3.653.28      5.53.28      5.53.28      5.53.28      5.53.28      5.53.28      5.53.28      5.53.28      5.53.28      247        Collection Part      3.24      3.34      5.358      5.58      5.58      5.59      5.59      5.58      247        Coladia West Direct Connections:      3.24      89.028      824,98      824,98      247      247        Vestern Weisenberg System:      3.24      89.028      82,438.00      234,38.00      262.5      559.13      577.50      577.50      577.50      577.50      562.5      562.5        Reimbursernent Part (1)      3.148      91.48      21,438.00      262.5      569.13      577.50      24.013.50      24.013.50      262.5        Col	ш	Capacity Part	5.	40	5.57	557 S	1,333.80	1,375.79	-1.375.79	247	Historical Trended Cost
Sand Spring Collector System:    2.01    2.24    3.24    5.25    5.63    563.28    563.28    563.28    563.28    563.28    563.28    563.28    563.28    563.28    563.28    247      Collection Part    3.24    3.34    3.34    3.34    56.76    1,378.26    1,378.26    138.26    247      Collection Part    5.25    5.58    55.8    55.8    55.8    1,296.75    1,378.26    138.26    247      Vestern Weisenberg System:    5.25    5.88    89.28    89.28    1,296.75    1,378.26    138.26    247      Mestern Weisenberg System:    5.25    5.38    89.28    89.28    23,438.00    234.36.00    262.5      Collection Part    2.117    91.48    91.48    213.20    23,436.00    262.5      Keimbursement Part (1)    2.13    2.013.50    24,013.50    24,013.50    24,013.50    262.5      Gollection Part    2.13    24,013.50    24,013.50    24,013.50    24,013.50    262.5      Western Weisenberg Treatment Plant: (2)    27.55    6,89.053    17,608.50		Total Wynnwood Terrace	14.	26	14.71	12371	3,522.22	3,633.37	3,633.37		
Collection Part      2.01      2.24      2.24      2.24      5.23      553.28      553.28      553.28      553.28      553.28      553.28      553.28      553.28      553.28      553.28      553.28      553.28      553.28      553.28      553.28      553.28      553.28      553.28      247        Total Sand Spring      5.25      5.58      558      558      558      1,365.06      247        Western Weisenberg System:      5.25      5.58      558      558      1,296.75      1,376.26      1376.26      247        Mestern Weisenberg System:      5.25      5.38      5928      324.356.00      234.456.00      262.5        Mestern Weisenberg Treatment Part (1)      2.13      2.20      23,436.00      24.013.50      24.013.50      24.013.50      262.5        Mestern Weisenberg Treatment Plant: (2)      2.13      24,013.50      24.013.50      24.013.50      24.013.50      262.5        Mestern Weisenberg Treatment Plant: (2)      27.55      6.890.63      17,608.50      7.231.88      262.5		Sand Spring Collector System:						<b>D</b> 314:			
Capacity Part      3.24      3.34	თ	Collection Part	~	01	2.24	2.24	496.47	553.28	553.28	247	Historical Trended Cost
Total Sand Spring      5.25      5.58      5.58      5.58      5.58      5.58      5.58      5.58      5.56      1,378.26      1378.26      1378.26      1378.26      1378.26      1378.26      1378.26      1378.26      1378.26      1378.26      1378.26      1378.26      1378.26      1378.26      1378.26      1378.26      1378.26      1358.26      1358.26      1358.26      1358.26      1358.26      1358.26      262.5      1378.26      262.5	G	Capacity Part	3.	24	3.34	- 334	800.28	824.98	-824,98	247	Historical Trended Cost
Western Weisenberg System:        Arcadia West Direct Connections:      85.04      89.28      89.28      57.300      23.436.00      262.5        Reimbursement Part (1)      2.13      2.20      22.0      559.13      577.50      577.50      562.5        Collection Part      2.13      2.20      22.20      23.436.00      262.5        Western Weisenberg Treatment Plant: (2)      2.13      2.20      22.03      559.13      577.50      562.5        Western Weisenberg Treatment Plant: (2)      27.55      67.08      27.55      6,890.63      7,013.50      24.013.50      262.5		Total Sand Spring	5.	25	5.58	5.58	1,296.75	1,378.26	-1,378.26		
Arcadia West Direct Connections:      85.04      89.28      89.28      59.23.00      23.436.00      262.5        Reimbursement Part (1)      2.13      2.20      559.13      577.50      577.50      562.5        Collection Part      2.13      2.20      2.220      559.13      577.50      562.5        Western Weisenberg Treatment Plant: (2)      27.15      91.48      91.48      27.882.13      24,013.50      24073.50      262.5        Mestern Weisenberg Treatment Plant: (2)      27.55      67.08      27.55      6,890.63      17,608.50      7,21.88      262.5		Western Weisenberg System:	•					,,,,,,,,			
Reimbursement Part (1)      85.04      89.28      89.28      89.23      89.28      22.33.00      23.436.00      262.5        Collection Part      2.13      2.20      2.20      559.13      577.50      577.50      577.50      577.50      562.5        Western Weisenberg Treatment Plant: (2)      27.55      67.08      27.55      6,890.63      17,608.50      7.31.88      262.5		Arcadia West Direct Connections:							時が歴史の		
Collection Part      2.13      2.20      2.20      559.13      577.50      577.50      577.50      557.70      262.5        R7.17      91.48      91.48      22.882.13      24,013.50      24.013.50      262.5        Western Weisenberg Treatment Plant: (2)      27.55      6,890.63      17,608.50      7,31.88      262.5	т	Reimbursement Part (1)	85.	40	89.28		22,323.00	23,436.00	23,436.00	262.5	Historical Trended Cost
87.17 91.48 91.48 22.882.13 24.013.50 24.013.50 24.013.50 22.013.50 27.55 5.890.63 17,608.50 7,231.88 262.5	Т	Collection Part	сі і	13	2.20	2.20	559.13	577.50	5/7 50	262.5	Historical Trended Cost
27.55 67.08 27.55 6,890.63 17,608.50 7,231.88 262.5		Wostorn Woisonhord Toostmont Dlant. (3)	87.	17	91.48	91.48	22,882.13		24.013.50		
	-	Testerit Telsenberg Headinent Flant, (4) Canacity Dart	27.	55	67.08	27.55	6.890.63	17 608 50	7 231 88	3£7 5	Entire Costs
	r	Capacity Fail	l	8	22.12	2	22222	00-000-11	00.107,1	C.707	

LEHIGH COUNTY AUTHORITY

By agreement with Arcadia, this fee only applies to the remaining 5.57 Edu's still available for connections in the Arcadia West Commercial area.
 A new customer connecting directly to the Western Weisenberg System and not contributing a collector line would pay the Arcadia Collector reimbursement

A new customer contributing a collector line and not connecting directly to the Arcadia System would only pay the Western Weisenberg Capacity fee. fee, the land portion of the Capacity Reimbursement fee, the Collection part and Western Weisenberg Treatment Plant Capacity fees.

financing rate of the system rather than by the change in the ENR index. The recommended new charges for the Upper Milford Collection Part has been increased by 3.13% or the ENR Construction cost change for the past year. Note: It is recommended that the new charges for the Heidelberg Heights Capacity and Collection Parts be increased by the

### Exhibit D 2011 UPPER MILFORD CONNECTION FEE SUMMARY

		Cost per Gallon			Cost per 10	000 (	Gallons	
	E	ixisting		New	Existing		New	Costing
Fee	C	Charge	C	harge (F)	Charge	Charge (F)		Method
Collection Part	\$	5.90	\$	6.08	\$ 5,900.00	\$	6,080.00	Historical Cost Trended
Capacity Part (H)	\$	8.53	\$	8.40	\$ 8,530.00	\$	8,400.00	Historical Cost Trended
Connection (C)		-	\$	-	\$ -	\$	-	Actual Cost
Non-UMiT Interceptor Use: Capacity Part	\$	0.89	\$	0.90	\$ 890.00	\$	900.00	Historical Cost plus Financing
UMiT Interceptor Use (D):								
Total Cost per EDU (A)		5,535.95		5,550.95	\$ 22,970.00	\$	23,030.00	
Total Cost per MFR (B)	\$ 4	4,769.95	\$	4,781.95				
Other UMIT Areas:								
Total Cost per EDU (A)	\$	222.50	\$	225.00				
Total Cost per MFR (B)	\$	178.00	\$	180.00				
Lower Macungie (G):								
Total Cost per EDU	\$	494.73	\$	511.46				
WLI Fees (E)	\$	7.65	\$	7.65	\$ 7,650.00	\$	7,650.00	

(A) Upper Milford EDU = 250 gallons.

(B) MFR for Upper Milford equates to 200 gallons per day.

(C) Under the new uniform plumbing code, the township does inspections.

(D) Includes Upper Milford & WLI fees.

(E) Wastewater Capacity and Interceptor fees for an EDU equates to 223 gallons because fees are sold across municipal lines. This figure is for Lehigh County per census.

(F) Shading indicates that rates are increased by 3.13% or the increase in the ENR index (May 2010 - May 2011).

(G) Represents the capacity charge to a Lower Macungie resident connecting to the Upper Milford Interceptor System.

(H) Only applies to connections where flow is transported by Upper Milford interceptors.

### EXHIBIT D 2011 CAPITAL RECOVERY FEES UPPER MILFORD TOWNSHIP COLLECTION & CAPACITY PARTS TRENDING METHOD

6/2/09 Project Costs: (A) Rt. 29 Project Cost S. 7th St Ph 1 (D) S. 7th St Ph 2 (D) Ramer Heights Project Net Project Cost		\$	1,646,084 32,068 23,281 148,811	\$	1,850,244
ENR Index Change (B) Rt 29 Project			1.9565		3,220,522
Ramer Heights Project			1.8124 1.0588		269,711 33,955
S. 7th St Ph 1 S. 7th St Ph 2			1.0094		23,499
Cost Basis			1.0001		3,547,686
Outstanding Debt					-
Cost Basis for Capital Recovery Fee				\$	3,547,686
% of Collector Cost	46.7% 53.3%		1,656,770 1,890,917		
% of Capacity Cost (C)	00.076	Ψ	1,000,017		
Limiting System Capacity per agreement					225,000
Maximum Charge per Gallon - Collector Part				\$	7.36
Maximum Charge per Gallon - Capacity Part				\$	8.40
Calculation of Gallons per Household:					2.78
Census figure per Household - UMiT Census figure per MFR - UMiT					2.70
# of Gallons per day per Capita					90
Gallons per EDU					250
Gallons per MFR Maximum\Charge.per EDU - Collector Part\ Maximum Charge per EDU - Capacity Part				\$ \$	200 1,840.00 2,100.00
Maximum Charge per MFR Unit - Collector/Part Maximum Charge per MFR Unit - Capacity Part				\$ \$	1,472.00 1,680.00

#### NOTES:

A) Excludes treatment capacity purchases & capitalized interest.

Subs. Comp	ENR	ENR 5/1/11	ENR Chg
8/22/89	4,618	9,035	1.9565
12/15/92	4,985	9,035	1.8124
1/26/09	8,533	9,035	1.0588
<b>10/15/1</b> 0	8,951	9,035	1.0094
	8/22/89 12/15/92 1/26/09	8/22/89 4,618 12/15/92 4,985 1/26/09 8,533	8/22/894,6189,03512/15/924,9859,0351/26/098,5339,035

C) Includes 100% of sewers transporting sewage from a collector system to an interceptor.

D) Net of federal grants.

### EXHIBIT D 2011 CAPITAL RECOVERY FEE UMIT CAPACITY OTHER CARRYING COST METHOD

Unreimbursed Planning Costs (B) Less: Contributions Less: Outstanding Debt		\$	172,058 - -
Plus: Financing & Interest Expenses (A)			30,306
Total Cost Basis		\$	202,364
Limiting System Capacity per agreement			225,000
Maximum Charge per/Gallon		\$	0,90
Calculation of Gallons per Household:			
Census figure per SF Household	2.78		
Census figure per MFR - UMIT	2.22		
# of Gallons per day per Capita	90		
Galions per EDU	250		
Gallons per MFR	200		
Maximum/Planning/Charge per/EDU Maximum/Planning/Charge per/MFR		\$ \$	225.00 180.00

(A) Includes interest expense (\$29,122) on \$77,487 borrowed as part of December 1991 loan and the portion of prorated financing costs \$1,184.

(B) Planning costs thru 12/31/10. Excludes costs for LMT agreement (1993 = \$3,696 & 1994 = \$2,820).

### Exhibit D 2011 CAPITAL RECOVERY FEES LOWER MACUNGIE CONNECTIONS TO UMIT INTERCEPTOR TRENDING METHOD

Project Costs: (A) Rt. 29 Project Cost	\$ 1,646,084		
ENR Index Increase (B)	1.9565		
Cost Basis	\$ 3,220,522	•	
Less O/S Debt (C)	-		
Project Cost Basis	\$ 3,220,522	•	
% of Project applicable to LMT Interceptor	24.79%		
LMT Interceptor Cost Basis	 	\$	798,367
Avg Day Capacity in GPD (D)			373,632
Charge per Gallon		\$	2.14
Calculation of Gallons per Household: Census figure per Household - LMT # of Gallons per day per Capita Gallons per EDU			2.65 90 239
Maximum charge per EDU Maximum charge per MFR (E)	Rosena de la composición de la composi Composición de la composición de la comp	\$ \$	511.46 338.43

#### NOTES:

(A) Includes Capitalized interest but excludes treatment capacity purchases.

(B) ENR Index	Subs. Comp	ENR	ENR 5/1/09	ENR Chg				
Rt 29 System	8/22/89	4,618	9,035	1.9565				
(0) Other the universe hulls to some evelopically new systemate, systemating data data								

(C) Since the projects were built to serve exclusively new customers, outstanding debt does not need to be subtracted.

(D) Equates to 1.5 mgd / 4 peaking factor.

(E) Based on 2009 water usage in LMT, an MFR uses 66.18% the amount of water of an EDU.

### EXHIBIT E 2011 CAPITAL RECOVERY FEES HEIDELBERG HEIGHTS SYSTEM TRENDING METHOD

		Collection		Capacity*
Project Costs	\$	123,157	\$	785,141
Total System Costs	\$	123,157	\$	785,141
ENR Index Increase (B)		1.4495		1.4495
Total Project Cost Basis	\$	178,521	\$	1,138,095
O/S Debt 6/1/11		(53,769)		(342,784)
Cost Basis for Capital Recovery Fee	\$	124,752	\$	795,311
Capacity: Total WW Plant Permitted Capacity (Gpd)		60,000		60,000
Maximum charge per gallon	( <b>\$</b> `)	2.08	\$ //	13.26
Calculation of Gallons per Household:				
Census figure per Household - Heidelberg Twr	3	2.76		2.76
# of Gallons per day per Capita		90		90
Gallons per EDU		248		248

Maximum charge per EDU (A) \$ 515.84 \$ 3,288.48

\* Excludes % (1.2%) of costs attributable to metering.

(A) Plant Capacity divided by Gallons per EDU.

- (B) Plant operations initiated on 6/1/00 Final Acceptance
  ENR Index 6/1/00 6,233
  ENR Index 5/1/11 9,035
- Note: It is recommended that rates be increased by the current financing rate of 3.384%.

## EXHIBIT F 2011 CAPITAL RECOVERY FEES WYNNEWOOD TERRACE WASTEWATER SYSTEM TRENDING METHOD

	C	ollection	(	Capacity
Total Costs: Acquisition Costs Improvements	\$	406,318 -	\$	247,393
Total Costs		406,318		247,393
ENR Index Increase (A)		1.3497		1.3497
Total Trended Costs		548,414		333,910
Outstanding Debt		-		-
Total Net Costs	\$	548,414	\$	333,910
Capacity: Total WW Plant Permitted Capacity (GPD) (B)		60,000		60,000
Maximum charge per gallon	Sec. 8	9.14	\$	5.57
Calculation of Gallons per Household: Census figure per Household - NWT # of Gallons per day per Capita Gallons per Household		2.74 90 247		
Maximum:charge.per/EDU	\$	2;257:58	\$	1,375.79
(A) ENR Index 7/1/03 ENR Index 5/1/11 (B) In late 2005, the treament plant discharge capa	6,694 9,035 acity to the colle	ector system v	vas rei	ated.

### EXHIBIT G 2011 CAPITAL RECOVERY FEES SAND SPRING WASTEWATER SYSTEM TRENDING METHOD

		C	ollection		Capacity
Acquisition Costs ENR Index Increase (A)		\$	58,452 1.2382	\$	88,048 1.2382
Total Trended Acquistion Costs	·	\$	72,374	\$	109,019
System Improvements - 2005 ENR Index Increase (B)		\$	-	\$	6,358 1.2284
Total Trended Sys Improvement Costs			-	\$	7,810
System Improvements - 2010 ENR Index Increase (C)		\$	5,980 1.0129	\$	-
Total Trended Sys Improvement Costs		\$	6,057	\$	-
Total Cost Basis		\$	78,431	\$	116,830
Outstanding Debt			-		-
Total Net Costs		\$	78,431	\$	116,830
Capacity: Total WW Plant Permitted Capacity (Gpd)			35,000		35,000
Maximum charge per gallon	(Perfector)	.\$	2.24	<b>\$</b> .	3.34
Calculation of Gallons per Household:					
Census figure per Household - NWT			2.74		
# of Gallons per day per Capita			90		
Gallons per Household			247		
Maximumicharge per EDU Maximumicharge per MFR (D)	derestreid Approximités Approximités	\$ \$	553.28 320.90	11.1	824.98 478.49
(A) Acquisition					
ENR Index 1/1/05	7,297				
ENR Index 5/01/11	9,035				
(B) System Improvement - 2005 ENR Index 4/1/05	7,355				
ENR Index 5/01/11	7,355 9,035				
(C) System Improvements 2010	0,000				
ENR Index 10/01/10	8,920				
ENR Index 5/1/11	9,035				
(D) Depending 2000 weter years in NMT on MEI		1 + 10-	~ ~~~~		

(D) Based on 2009 water usage in NWT, an MFR uses 58% the amount of water of an EDU.

EXHIBIT H 2011 CAPITAL RECOVERY FEES ARCADIA WEST WASTEWATER SYSTEM

Total			ent rees	
	Total	Collector	Capacity	Collection
Arcadia Cost for Collector System \$ 318,32	318,322 \$	318,322		
Land - Arcadia System 210,40	210,403		210,403	
System	19,548			19,548
Plant 196,46	196,463		196,463	
Inflation / Trend Factor (B)		1.477455	1.477455	1.349716
Total Cost \$ 1.097.81	1.097.817 \$	470.306 \$	\$ 601.126 \$	\$ 26.385
hare of Design Capacity	12,000			

(A) Only applicable to the remaining 5.57 EDU's available in the Arcadia West Commercial area.

After 6/12/13, only 50% of reimbursement fee is returned to Arcadia through 6/12/18. Excludes portion of lateral costs. (B) The reimbursement rates are inflated by 5% annually beginning in July 2004 per agreement

with Arcadia and LCA. LCA Collection system fee is inflated by the ENR index change.

Note: By agreement with Arcadia West, an EDU is equal to 262.5 gallons.