



## LEHIGH COUNTY AUTHORITY

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

**Agendas & Minutes Posted:**  
[www.lehighcountyauthority.org](http://www.lehighcountyauthority.org)

Published: August 21, 2017

### BOARD MEETING AGENDA – August 28, 2017

1. Call to Order

- NOTICE OF MEETING RECORDINGS

Meetings of Lehigh County Authority's Board of Directors that are held at LCA's Main Office at 1053 Spruce Road, Wescosville, PA, may be recorded for viewing online at [lehighcountauthority.org](http://lehighcountauthority.org). Recordings of LCA meetings are for public convenience and internal use only and are not considered as minutes for the meeting being recorded, nor are they part of public record. Recordings may be retained or destroyed at LCA's discretion.

- *Public Participation Sign-In Request*

2. Review of Agenda / Executive Sessions

3. Approval of Minutes

- *August 14, 2017 Board meeting minutes*

4. Public Comments

5. Action / Discussion Items:

#### **FINANCE AND ADMINISTRATION**

- *Suburban Division – Water & Wastewater Tapping Fees – to be sent under separate cover*
- *2018-2022 Draft Capital Plans - Distributed previously*
- *2018 Budget – Information only (green)*

#### **WATER**

- *Suburban Division – Buss Acres Pumping Station Replacement (purple)*
- *Suburban Division – Emergency Declaration (blue)*

#### **WASTEWATER**

- *Allentown Division – Wastewater Treatment Plant: Miscellaneous Improvements (yellow)*
- *Suburban Division – 2017 SCARP Improvement Implementation Plant (tan)*

6. Monthly Project Updates / Information Items (1<sup>st</sup> Board meeting per month)

7. Monthly Financial Review (2<sup>nd</sup> Board meeting per month) – **July 2017 report attached**

8. Monthly System Operations Overview (2<sup>nd</sup> Board meeting per month) – **July 2017 report attached**

9. Staff Comments

10. Solicitor's Comments

11. Public Comments / Other Comments

12. Executive Sessions

13. Adjournment

#### **UPCOMING BOARD MEETINGS**

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

September 11, 2017

September 25, 2017

October 9, 2017

#### **PUBLIC PARTICIPATION POLICY**

In accordance with Authority policy, members of the public shall record their name, address, and discussion item on the sign-in sheet at the start of each meeting; this information shall also be stated when addressing the meeting. During the Public Comment portions of the meeting, members of the public will be allowed 5 minutes to make comments/ask questions regarding non-agenda items, but time may be

extended at the discretion of the Chair; comments/questions regarding agenda items may be addressed after the presentation of the agenda item. Members of the public may not request that specific items or language be included in the meeting minutes.

## **REGULAR MEETING MINUTES**

### **August 14, 2017**

---

The Regular Meeting of the Lehigh County Authority was called to order at 12:01 p.m. on Monday, August 14, 2017, Chairman Nagle presiding. Other Members present at the commencement of the meeting were: Linda Rosenfeld, Jeff Morgan, Richard Bohner, and Deana Zosky. Authority Staff present were Liesel Gross, Ed Klein, Pat Mandes, Chuck Volk, Chris Moughan, John Parsons, Susan Sampson, Phil DePoe, Robert Kerchusky, and Lisa Miller.

#### **REVIEW OF AGENDA**

Chairman Nagle announced that today's Board meeting is being videotaped and streaming live and recordings will be posted to the Authority's website.

Liesel Gross noted there are no Agenda changes but noted that the 2018-2022 Capital Plans were distributed for their review in advance of the August 28, 2017 meeting. She also noted there will be an Executive Session at the end of the regular agenda regarding matters of potential litigation.

Deana Zosky requested that the agenda item related to the EPA Administrative Order Update be moved to the top of the agenda since she would need to leave the meeting at 1 p.m.

#### **APPROVAL OF MINUTES**

##### **July 24, 2017 Regular Meeting Minutes**

On a motion by Richard Bohner, seconded by Deana Zosky, the Board approved the Minutes of the July 24, 2017 meeting (5-0).

#### **PUBLIC COMMENTS**

None.

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

##### **EPA Administrative Order Update**

Liesel Gross provided a brief introduction to remind the Board of the different roles and responsibilities the Authority holds in responding to the USEPA Administrative Order (AO) to eliminate sanitary sewer overflows (SSOs). The Authority has an important role in facilitating the collaboration among communities in Western Lehigh County who use the Authority's interceptors and pump station. In addition, the Authority is a customer of the City of Allentown, as well as the operator of the City system under the terms of the lease agreement with the City. All communities that use the sewer system are named in the AO, and all are required to submit a capital improvements plan to EPA and the Pennsylvania Department of Environmental Protection by December 31, 2017 in order to comply with the AO. The Authority has been leading efforts to develop these plans collaboratively and to formalize cost-sharing concepts into inter-municipal agreements.

Jim Shelton from Arcadis was present and gave a presentation updating the Authority on the progress made to date to comply with the AO and develop the December 2017 required submission, and key action items required in the near term to meet the upcoming regulatory deadline. He also reviewed the status of negotiations with Western Lehigh County municipalities on cost-sharing concepts and reported that an agreement is likely to be offered for approval later this year. With regards to a cost-sharing agreement between the Authority, the City and its other municipal signatories, Mr. Shelton reported that negotiations have ended and an agreement will not be moving forward. This is due primarily to individual municipalities being uncertain about future cost exposure when their contribution to peak flows is not known today, and the City ended the negotiations based on not having all municipalities agreeing to the peak-flow cost-sharing concept. Members of the Authority Board expressed frustration that an agreement can't be met after all this time spent working on the project. Dan Koplish, consultant to the City of Allentown was present and commented that the City was agreeable to sharing costs based on peak flow, but was unwilling to sign an agreement without all the parties also agreeing. The City had issued its position to the municipalities, but

couldn't reach agreement with them on cost-sharing. He also noted that the City has no idea where it stands with respect to its own peak flow contributions to the SSOs and so the City took a leap of faith to try to negotiate the agreement. Deana Zosky commented that the negotiations could continue with the parties who wanted to participate, and Jim Shelton noted that the Authority and the City, plus the other municipalities that were open to this agreement, make up about 90 percent of the total flow in the system, so that an agreement could work if the parties were interested.

Liesel Gross explained that at this time the Authority staff is requesting action to be taken today to authorize Arcadis to develop the 2017 SCARP Improvement Implementation Plan and Guidance Manual for submission to the regulators by December 31, 2017 on behalf of LCA and the Western Lehigh municipalities. In addition, a Professional Services Authorization for Kleinfelder was presented to complete final design of Phase 1 improvements at the City's Kline's Island Wastewater Treatment Plant. The City of Allentown has directed the Authority, via the lease, to develop the final design for these improvements based on use of blending technology, and Kleinfelder has been selected to complete this work. Deana Zosky questioned why the Authority is requesting approval for design of blending facilities when no official regulatory decision has been made on the issue of blending, although DEP has stated that it would not be allowed. Jim Shelton explained that the DEP may not issue an official decision on blending until a permit application has been submitted, which requires the design work to be completed. Ms. Zosky stated she is opposed to spending taxpayer dollars on blending design when we don't know if it will be approved.

Chairman Brian Nagle suggested that the new information provided to the Board regarding the status of cost-sharing negotiations with the City and other municipalities is important and needs to be carefully reviewed and analyzed before additional action is taken on large expenditures such as the blending design. Due to upcoming staff absences and to allow time for additional discussion, he requested the Kleinfelder approval be tabled until the September 11, 2017 Board meeting.

Deana Zosky left the meeting at 1:03 p.m. At this time, there weren't enough Board members present for a quorum and no action could be taken on the Arcadis proposal.

#### **Suburban Division – Buss Acres Pumping Station Replacement**

Not discussed.

#### **Allentown Division – Wastewater Treatment Plant: miscellaneous Improvements**

Not discussed.

#### **Full-Year Financial Forecast**

Ed Klein gave an overview of the 2017 Q3 Financial Forecast including a short PowerPoint presentation.

#### **MONTHLY PROJECT UPDATES/INFORMATION ITEMS**

Liesel Gross stated that with the adjustments to the agenda for today's meeting due to the lack of quorum, the August 28, 2017 planned agenda will be adjusted to cover the items that were not addressed. These will be in addition to the items noted on the monthly report for the upcoming meetings.

#### **STAFF COMMENTS**

None.

#### **SOLICITOR'S COMMENTS**

None.

#### **PUBLIC COMMENTS / OTHER COMMENTS**

None.

Chairman Nagle called a break at 1:25 p.m. The meeting reconvened at 1:28 p.m.

**EXECUTIVE SESSION**

Chairman Nagle called an Executive Session at 1:28 p.m. to discuss potential litigation.

The Executive Session ended at 2:28 p.m.

**ADJOURNMENT**

There being no further business, the Chairman adjourned the meeting at 2:28 p.m.

---

Richard H. Bohner  
Secretary

**LEHIGH COUNTY AUTHORITY**  
**SUMMARY OF WASTEWATER FUND CAPITAL RECOVERY FEES**  
Updated as of 8/23/17

Exhibit	Charge	Per Gallon			Per EDU			(1)	(2)	Costing Method
		Existing Charge 7/1/2016	Maximum Charge	New Charge	Existing Charge 7/1/2016	Maximum Charge	New Charge	Gallons per EDU	Change %	
Interceptor System:										
A	Wastewater Capacity	\$ 5.84	\$6.11	\$6.11	\$ 1,302.32	\$ 1,363.61	\$1,363.61	223.0	4.71%	Historical Trended Cost
B	Western Lehigh Interceptor	3.56	3.87	3.87	793.88	863.34	863.34	223.0	8.75%	Historical Trended Cost
C	Little Lehigh Relief Interceptor	0.99	1.10	1.10	220.77	245.66	245.66	223.0	11.28%	Historical Trended Cost
Total Western Lehigh Service Area		10.39	11.09	11.09	2,316.97	2,472.62	2,472.62			
Upper Milford System										
D1	Capacity	1.85	5.32	5.32	435.00	1,249.85	1,249.85	234.9	187.32%	Historical Trended Cost
D1	Collection	9.92	7.73	7.73	2,331.00	1,816.17	1,816.17	234.9	-22.09%	Historical Trended Cost
D1	Planning Costs Capacity	0.56	0.58	0.58	131.63	135.36	135.36	234.9	2.83%	Historical Trended Cost
Lower Macungie										
D2	Capacity	2.44	\$2.56	2.56	585.00	611.52	611.52	238.5	4.53%	Historical Trended Cost
	MFR Charge	1.47	1.54		351.00	366.91	366.91		4.53%	
Heidelberg Heights Wastewater System										
E	Capacity	19.73	22.34	22.34	4,754.29	5,388.26	5,388.26	241.2	13.33%	Historical Trended Cost
E	Collection	2.60	3.49	3.49	626.55	842.74	842.74	241.2	34.50%	Historical Trended Cost
Wynnewood Terrace Wastewater System										
F	Capacity	6.37	10.64	10.64	1,534.48	2,567.32	2,567.32	241.2	67.31%	Historical Trended Cost
F	Collection	10.46	11.56	11.56	2,520.23	2,788.31	2,788.31	241.2	10.64%	Historical Trended Cost
Sand Springs Wastewater System										
G	Capacity	3.82	5.97	5.97	920.38	1,441.01	1,441.01	241.2	56.57%	Historical Trended Cost
	MFR Charge	2.48	3.88		598.25	936.66	936.66		56.57%	
G	Collection	2.56	3.52	3.52	617.88	849.83	849.83	241.2	37.54%	Historical Trended Cost
	MFR Charge	1.66	2.29		401.62	552.39	552.39		37.54%	
Arcadia West, Western Weisenberg:										
(3)	Reimbursement Fee - Collection Part	50.02			13,130.32	\$0.00		262.5		Historical Trended Cost
(3)	Reimbursement Fee - Capacity Part	33.06			8,678.82	\$0.00		262.5		Historical Trended Cost
(3)	LCA Land Fee	3.96			1,040.25	\$0.00		262.5		Historical Trended Cost
(3)	LCA Planning	2.52			661.50	\$0.00		262.5		Historical plus Financing Costs
(3)	W Weisenberg Treatment Plant	38.51			10,108.10	\$0.00		262.5		Historical Trended Cost

(1) The gallons per EDU figure to calculate the per gallon rate has changed with the 2010 census data

(2) Based on Charge Per EDU

(3) Arcadia West and Western Weisenberg Fees will be updated in the future pending review of existing developer agreements.

**Resulting Charges**

**Upper Milford System**

Rt 29, Ramer Heights and Vera Cruz	22.72	24.72		5,214.60	5,674.00	5,674.00	8.81%	ABC + D1-Cap + D1-Coll + D1-Plan
MFR Charge	13.63	14.83		3,128.76	3,404.40	3,404.40	8.81%	
Other UMiT Areas	10.95	11.66		2,448.60	2,607.97	2,607.97	6.51%	ABC + D1-Plan
MFR Charge	6.57	7.00		1,469.16	1,564.78	1,564.78	6.51%	

**Exhibit A**  
**Lehigh County Authority - Central Lehigh Division**  
**Lehigh County, Pennsylvania**  
**Calculation of Sewer Tapping Fee**  
**Interceptor System: Wastewater Capacity**

<b>A. <u>Capacity Part</u></b>	<b><u>Original Cost</u></b>	<b><u>Trended Cost</u></b>
General Pool	\$1,152,500	\$1,456,621
Salisbury Portion	600,000	683,579
	<u>\$1,752,500</u>	<u>\$2,140,200</u>
Less: Contributions	-	-
Net Capital	<u>\$1,752,500</u>	<u>\$2,140,200</u>
Financing Costs for Capacity Part	-	-
Total Cost of Capacity Part	<u>\$1,752,500</u>	<u>\$2,140,200</u>
Plus: Interest Paid On Debt	-	n/a
Less: Outstanding Debt	n/a	-
Eligible Cost for Capacity Part	<u>\$1,752,500</u>	<u>\$2,140,200</u>
Total Capacity	350,000	350,000
Capacity Tapping Fee per Gallon	\$5.01	\$6.11
Gallon per EDU for Capacity Part (1)	223.0	223.0
Capacity Tapping Fee per EDU	\$1,116.59	\$1,363.61
(1) Total Gallons Per Day Per EDU Per Agreements	223	

**Exhibit B**  
**Lehigh County Authority - Central Lehigh Division**  
**Lehigh County, Pennsylvania**  
**Calculation of Sewer Tapping Fee**  
**Interceptor System: Western Lehigh Interceptor**

<b>A. Capacity Part</b>	<b>Exhibit Reference</b>	<b>Original Cost</b>	<b>Trended Cost</b>
Original Interceptor	B - 1	\$5,215,326	\$32,254,575
Phase II, Stage 1	B - 1	884,097	1,996,457
Phase II, Stage 2	B - 1	6,069,549	11,206,301
Phase II, Stage 4	B - 1	3,315,228	4,737,319
Flow Equaliz. Basin	B - 1	5,495,586	6,655,073
Iron Run PS & Force Main	B - 1	1,090,829	4,724
Wastewater Treatment Capacity	B - 1	601,763	691,265
WLI - WW Capacity Prg Dev	B - 1	1,207,197	746,336
Interceptor Conn	B - 1	1,823	2,045
Flow Monitoring Network	B - 1	419	470
Spring Creek PS Improvements	B - 1	86,250	90,833
Meter Stat. No. 5 Improvements	B - 1	172,176	187,010
		<hr/>	<hr/>
		\$24,140,242	\$58,572,407
Less: Contributions		2,536,420	15,686,680
Net Capital		<hr/>	<hr/>
		\$21,603,822	\$42,885,728
Financing Costs for Capacity Part		-	-
Total Cost of Capacity Part		<hr/>	<hr/>
		\$21,603,822	\$42,885,728
Plus: Interest Paid On Debt		4,911,674	n/a
Less: Outstanding Debt		n/a	3,927,001
Eligible Cost for Capacity Part		<hr/>	<hr/>
		\$26,515,496	\$38,958,727
Total Capacity		10,063,000	10,063,000
Capacity Tapping Fee per Gallon		\$2.63	\$3.87
Gallon per EDU for Capacity Part (1)		223.0	223.0
Capacity Tapping Fee per EDU		\$587.59	\$863.34
(1) Total Gallons Per Day Per EDU		223	
Per Agreements			



**Exhibit B - 1**  
**Lehigh County Authority - City Division**  
**Lehigh County, Pennsylvania**  
**Interceptor System: Western Lehigh Interceptor**  
**Capacity Assets**

<u>Expenditure</u>	<u>Placed in Service</u>		<u>Original Cost</u>	<u>Cost Index</u> <u>Original    Current</u>		<u>Trended Current Replacement Cost</u>
<b>Original Interceptor</b>						
Interceptor	Jan	1972	\$5,215,326	1753	10842	\$32,254,575
<b>Phase II, Stage 1</b>						
Interceptor	May	1991	\$884,097	4801	10842	\$1,996,457
<b>Phase II, Stage 2</b>						
Interceptor	Jan	1998	\$2,449,063	5852	10842	\$4,537,195
PS Structure	Jan	1998	2,044,224	5852	10842	3,787,180
Pump & Elect	Jan	1998	1,506,462	5852	10842	2,790,909
Land	Jan	1998	44,915			44,915
Metering	Jan	1998	24,885	5852	10842	46,103
<b>Phase II, Stage 4</b>						
Interceptor	Sep	2005	\$3,247,728	7540	10842	\$4,669,819
Land	Sep	2005	67,500			67,500
<b>Flow Equaliz. Basin</b>						
	Dec	2010	\$5,488,588	8952	10842	\$6,646,805
	Jan	2012	6,998	9176	10842	8,268
<b>Iron Run PS &amp; Force Main</b>						
	Prior to	Jan 2012	<del>\$1,086,546</del>	Excluded - Previously counted		
		Jan 2012	1,782	9176	10842	\$2,106
		Jan 2013	200	9437	10842	230
		Jan 2014	106	9664	10842	118
		Jan 2015	209	9972	10842	228
		Jan 2017	1,986	10542	10842	2,042
<b>Wastewater Treatment Capacity</b>						
		Jan 2012	\$350	9176	10842	\$414
		Jan 2013	600,369	9437	10842	689,705
		Jan 2014	298	9664	10842	334
		Jan 2015	747	9972	10842	812
<b>WLI - WW Capacity Prg Dev</b>						
	Prior to	Jan 2012	<del>\$546,637</del>	Excluded - Previously counted		
		Jan 2012	66,774	9176	10842	\$78,894
		Jan 2013	246,735	9437	10842	283,450
		Jan 2014	213,732	9664	10842	239,776
		Jan 2015	91,472	9972	10842	99,448
		Jan 2016	41,663	10133	10842	44,579
		Jan 2017	185	10542	10842	190
<b>Signatory I&amp;I Program</b>						
	Prior to	Jan 2012	<del>\$2,291,652</del>	Excluded - Repairs		
		Jan 2012	<del>438,574</del>	Excluded - Repairs		
		Jan 2013	<del>400,188</del>	Excluded - Repairs		
		Jan 2014	<del>467,300</del>	Excluded - Repairs		
		Jan 2015	<del>324,637</del>	Excluded - Repairs		
		Jan 2016	<del>296,267</del>	Excluded - Repairs		
		Jan 2017	<del>199,380</del>	Excluded - Repairs		

**Exhibit B - 1**  
**Lehigh County Authority - City Division**  
**Lehigh County, Pennsylvania**  
**Interceptor System: Western Lehigh Interceptor**  
**Capacity Assets**

<u>Expenditure</u>	<u>Placed in Service</u>		<u>Original Cost</u>	<u>Cost Index</u> <u>Original    Current</u>		<u>Trended Current Replacement Cost</u>
<b>Interceptor Conn</b>	Jan	2014	\$1,823	9664	10842	\$2,045
<b>Flow Monitoring Network</b>	Jan	2014	\$419	9664	10842	\$470
<b>Spring Creek PS Improvements</b>	Jan	2014	\$528	9664	10842	\$592
	Jan	2015	413	9972	10842	449
	Jan	2016	49,537	10133	10842	53,004
	Jan	2017	35,771	10542	10842	36,788
<b>Meter Stat. No. 5 Improvements</b>	Jan	2015	\$161,709	9972	10842	\$175,811
	Jan	2016	10,466	10133	10842	11,199
<b>Test &amp; Seal - Cycle 1</b>	Jan	2016	<del>\$534,283</del>	Excluded - Repairs		
	Jan	2017	<del>\$280,907</del>	Excluded - Repairs		
<b>Spring Creek Force Main AARV Rep</b>	Jan	2017	<del>\$3,757</del>	Excluded - Repairs		
			<b>\$22,507,060</b>			<b>\$58,572,407</b>

**Exhibit C**  
**Lehigh County Authority - Central Lehigh Division**  
**Lehigh County, Pennsylvania**  
**Calculation of Sewer Tapping Fee**  
**Little Lehigh Relief Interceptor**

**A. Capacity Part**

	<b><u>Original Cost</u></b>	<b><u>Trended Cost</u></b>
Project Costs - Dec. 1986	\$4,750,332	\$11,836,591
Park PS Improvements Ph1 - Prior to 2012	34,670	40,963
Park PS Improvements Ph1 - 2012	102,160	120,703
Park PS SCADA Gen - Prior to 2012	34,421	40,669
Park PS SCADA Gen - 2012	11,326	13,382
Park PS Improvements Ph1 - 2013	21,619	24,836
Park PS SCADA Gen - 2013	6,189	7,110
Park PS Improvements Ph1 - 2014	74	84
Park PS SCADA Gen - 2014	140,634	157,771
Park PS Improvements Ph1 - 2015	973	1,058
Park PS SCADA Gen - 2015	72,378	78,690
Park PS Improvements Ph1 - 2016	98,867	105,785
Park PS Force Main Upgrade - 2016	101	108
Park PS Improvements Ph1 - 2017	33,358	34,306
Park PS Force Main Upgrade - 2017	1,268	1,304
Park PS Force Main Extension - 2017	5,941	6,110
	<u>\$5,314,314</u>	<u>\$12,469,471</u>
Less: Contributions	583,221	1,453,235
Net Capital	<u>\$4,731,093</u>	<u>\$11,016,236</u>
 Financing Costs for Capacity Part	 -	 -
Total Cost of Capacity Part	<u>\$4,731,093</u>	<u>\$11,016,236</u>
 Plus: Interest Paid On Debt	 4,890,657	 n/a
 Less: Outstanding Debt	 n/a	 -
Eligible Cost for Capacity Part	<u>\$9,621,750</u>	<u>\$11,016,236</u>
 Total Capacity	 10,000,000	 10,000,000
 Capacity Tapping Fee per Gallon	 \$0.96	 \$1.10
 Gallon per EDU for Capacity Part (1)	 223.0	 223.0
 Capacity Tapping Fee per EDU	 \$214.57	 \$245.66
 (1) Total Gallons Per Day Per EDU	 223	
Per Agreements		

**Exhibit D1**  
**Lehigh County Authority - Central Lehigh Division**  
**Lehigh County, Pennsylvania**  
**Calculation of Sewer Tapping Fee**  
**Upper Milford Township - Rt. 29 Area**

<b>A. <u>Capacity Part</u></b>	<b><u>Exhibit Reference</u></b>	<b><u>Original Cost</u></b>	<b><u>Trended Cost</u></b>
Rt. 29 Project Cost & Capitalized Interest	D1 - 1	\$987,650	\$2,318,681
		\$987,650	\$2,318,681
Less: Contributions		-	-
Net Capital		\$987,650	\$2,318,681
Financing Costs for Capacity Part		-	-
Total Cost of Capacity Part		\$987,650	\$2,318,681
Plus: Interest Paid On Debt		-	n/a
Less: Outstanding Debt		n/a	261,296
Eligible Cost for Capacity Part		\$987,650	\$2,057,384
Total Capacity		386,669	386,669
Capacity Tapping Fee per Gallon		\$2.55	\$5.32
Gallon per EDU for Capacity Part (1)		234.9	234.9
Capacity Tapping Fee per EDU		\$599.99	\$1,249.85

**Exhibit D1**  
**Lehigh County Authority - Central Lehigh Division**  
**Lehigh County, Pennsylvania**  
**Calculation of Sewer Tapping Fee**  
**Upper Milford Township - Rt. 29 Area**

<b>B. <u>Collection Part</u></b>	<b><u>Exhibit Reference</u></b>	<b><u>Original Cost</u></b>	<b><u>Trended Cost</u></b>
Rt. 29 Project Cost & Capitalized Interest	D1 - 1	\$658,434	\$1,545,789
South 7th Street - Ph - 1	D1 - 1	204,222	258,988
South 7th Street - Ph - 2	D1 - 1	233,261	283,493
Ramer Heights Project & Capitalized Interest	D1 - 1	148,811	318,906
Vera Cruz Project	D1 - 1	4,284,326	5,060,954
Additional Project Costs	D1 - 1	49,496	54,170
		<hr/> \$5,578,550	<hr/> \$7,522,299
Less: Contributions	D1 - 2	<hr/> 2,688,249	<hr/> 3,129,685
Net Capital		<hr/> \$2,890,301	<hr/> \$4,392,614
Financing Costs for Collection Part		-	-
Total Cost of Collection Part		<hr/> \$2,890,301	<hr/> \$4,392,614
Plus: Interest Paid On Debt		-	n/a
Less: Outstanding Debt		n/a	1,403,010
Eligible Cost for Capacity Part		<hr/> \$2,890,301	<hr/> \$2,989,604
Total Capacity		386,669	386,669
Collection Tapping Fee per Gallon		\$7.47	\$7.73
Gallon per EDU for Capacity Part (1)		234.9	234.9
Collection Tapping Fee per EDU		\$1,755.85	\$1,816.17

**Exhibit D1**  
**Lehigh County Authority - Central Lehigh Division**  
**Lehigh County, Pennsylvania**  
**Calculation of Sewer Tapping Fee**  
**Upper Milford Township - Rt. 29 Area**

<b>C. <u>Capacity Part - Planning Costs</u></b>	<b><u>Exhibit Reference</u></b>	<b><u>Original Cost</u></b>	<b><u>Trended Cost</u></b>
Planning Costs		\$186,279	\$220,187
		\$186,279	\$220,187
Less: Contributions		-	-
Net Capital		\$186,279	\$220,187
Financing Costs for Capacity Part		1,184	2,626
Total Cost of Capacity Part		\$187,463	\$222,813
Plus: Interest Paid On Debt		29,122	n/a
Less: Outstanding Debt		n/a	-
Eligible Cost for Capacity Part		\$216,585	\$222,813
Total Capacity		386,669	386,669
Capacity Tapping Fee per Gallon		\$0.56	\$0.58
Gallon per EDU for Capacity Part (1)		234.9	234.9
Capacity Tapping Fee per EDU		\$131.57	\$135.36
(1) Average Household Size Per 2010 Census for Upper Milford		2.61	
Gallons Per Capita Per Day Allowed Per Act 57 of 2003		90	
Total Gallons Per Day Per EDU		234.9	

**Exhibit D1 - 1**  
**Lehigh County Authority - City Division**  
**Lehigh County, Pennsylvania**  
**Upper Milford Township - Rt. 29 Area**

**Capacity Assets**

<u>Expenditure</u>	<u>Placed in Service</u>		<u>Original Cost</u>	<u>Cost Index</u> <u>Original    Current</u>		<u>Trended Current Replacement Cost</u>
<b>Rt. 29 Project Cost &amp; Capitalized Interest</b>						
Interceptor	Aug	1989	\$987,650	4618	10841.56	\$2,318,681
			<b>\$987,650</b>			<b>\$2,318,681</b>

**Collection Assets**

Expenditure	Placed in Service			Original Cost	Cost Index		Trended Current Replacement Cost
					Original	Current	
Rt. 29 Project Cost & Capitalized Interest							
Collector	Aug	1989	\$658,434	4618	10841.56	\$1,545,789	
Ramer Heights Project & Capitalized Interest							
Collector	Dec	1992	\$148,811	5059	10841.56	\$318,906	
South 7th Street - Ph - 1							
Collector	Jan	2009	\$204,222	8549	10841.56	\$258,988	
South 7th Street - Ph - 2							
Collector	Oct	2010	\$233,261	8921	10841.56	\$283,493	
Vera Cruz Project							
	Prior to	Jan	2012	\$2,495,282	9176	10841.56	\$2,948,207
		Jan	2012	1,765,192	9176	10841.56	2,085,597
		Jan	2013	18,891	9437	10841.56	21,701
		Jan	2014	1,572	9664	10841.56	1,763
		Jan	2015	3,390	9972	10841.56	3,686
Additional Project Costs							
South 7th Street Extension	Jan	2012	\$458	9176	10841.56	\$541	
South 7th Street Extension - Ph - 2	Jan	2012	2,701	9176	10841.56	3,191	
Weaver - 4751 Mill Road	Jan	2012	1,650	9176	10841.56	1,949	
Weaver - 4751 Mill Road	Jan	2013	8,555	9437	10841.56	9,828	
Fields at Indian Creek	Jan	2014	2,048	9664	10841.56	2,298	
Weaver - 4751 Mill Road	Jan	2015	150	9972	10841.56	164	
Fields at Indian Creek	Jan	2015	4,433	9972	10841.56	4,820	
Fields at Indian Creek	Jan	2016	25,037	10133	10841.56	26,789	
Fields at Indian Creek	Jan	2017	4,092	10542	10841.56	4,209	
Kohler Tract - Sewer	Jan	2017	372	10542	10841.56	383	

**Exhibit D1 - 2**  
**Lehigh County Authority - City Division**  
**Lehigh County, Pennsylvania**  
**Upper Milford Township - Rt. 29 Area**

<u>Expenditure</u>	<b>Contributions - Collection</b>		<b>Cost Index</b>		<b>Trended Current Replacement Cost</b>
	<b>Placed in Service</b>	<b>Original Cost</b>	<b>Original</b>	<b>Current</b>	
<b>South 7th Street - Ph - 1</b>					
Federal Grant	Jan 2009	\$172,100	8549	10841.56	\$218,252
<b>South 7th Street - Ph - 2</b>					
Federal Grant	Oct 2010	\$206,649	8921	10841.56	\$251,150
<b>Vera Cruz Project Costs thru 4/30/14</b>					
Federal Grant	Dec 2012	\$1,309,500	9412	10841.56	\$1,508,396
State Grant	Dec 2012	1,000,000	9412	10841.56	1,151,887
		<b>\$2,688,249</b>			<b>\$3,129,685</b>



**Exhibit D2**  
**Lehigh County Authority - Central Lehigh Division**  
**Lehigh County, Pennsylvania**  
**Calculation of Sewer Tapping Fee**  
**Lower Macungie Connections to UMiT Interceptor**

<b>A. <u>Capacity Part</u></b>		<b><u>Original Cost</u></b>	<b><u>Trended Cost</u></b>
Rt. 29 Project Cost	\$1,646,084		
% of Project applicable to LMT Interceptor	24.79%	\$408,064	\$958,002
		<u>\$408,064</u>	<u>\$958,002</u>
Less: Contributions		-	-
Net Capital		<u>\$408,064</u>	<u>\$958,002</u>
Financing Costs for Capacity Part		-	-
Total Cost of Capacity Part		<u>\$408,064</u>	<u>\$958,002</u>
Plus: Interest Paid On Debt		-	n/a
Less: Outstanding Debt		n/a	-
Eligible Cost for Capacity Part		<u>\$408,064</u>	<u>\$958,002</u>
Total Capacity		373,632	373,632
Capacity Tapping Fee per Gallon		\$1.09	\$2.56
Gallon per EDU for Capacity Part (1)		238.5	238.5
Capacity Tapping Fee per EDU		\$260.48	\$611.52
(1) Average Household Size Per 2010 Census for Lower Macungie Twp		2.65	
Gallons Per Capita Per Day Allowed Per Act 57 of 2003		<u>90</u>	
Total Gallons Per Day Per EDU		238.5	

**Exhibit E**  
**Lehigh County Authority - Central Lehigh Division**  
**Lehigh County, Pennsylvania**  
**Calculation of Sewer Tapping Fee**  
**Heidelberg Heights System**

<b>A. <u>Capacity Part</u></b>	<b><u>Original Cost</u></b>	<b><u>Trended Cost</u></b>
Project Costs	\$785,141	\$1,364,564
WWTP Upgrades - 2017	3,798	3,906
	<u>\$788,939</u>	<u>\$1,368,470</u>
Less: Contributions	-	-
Net Capital	<u>\$788,939</u>	<u>\$1,368,470</u>
Financing Costs for Capacity Part	-	-
Total Cost of Capacity Part	<u>\$788,939</u>	<u>\$1,368,470</u>
Plus: Interest Paid On Debt	-	n/a
Less: Outstanding Debt	n/a	28,106
Eligible Cost for Capacity Part	<u>\$788,939</u>	<u>\$1,340,364</u>
Total Capacity	60,000	60,000
Capacity Tapping Fee per Gallon	\$13.15	\$22.34
Gallon per EDU for Capacity Part (1)	241.2	241.2
Capacity Tapping Fee per EDU	\$3,171.53	\$5,388.26

**Exhibit E**  
**Lehigh County Authority - Central Lehigh Division**  
**Lehigh County, Pennsylvania**  
**Calculation of Sewer Tapping Fee**  
**Heidelberg Heights System**

<b>B. <u>Collection Part</u></b>		<b><u>Original Cost</u></b>	<b><u>Trended Cost</u></b>
Project Costs		\$123,157	\$214,045
I&I Removal Project - 2016	Excluded - Repairs	57,099	
I&I Removal Project - 2017	Excluded - Repairs	447	
		\$123,157	\$214,045
Less: Contributions		-	-
Net Capital		\$123,157	\$214,045
Financing Costs for Collection Part		-	-
Total Cost of Collection Part		\$123,157	\$214,045
Plus: Interest Paid On Debt		-	n/a
Less: Outstanding Debt		n/a	4,409
Eligible Cost for Capacity Part		\$123,157	\$209,637
Total Capacity		60,000	60,000
Collection Tapping Fee per Gallon		\$2.05	\$3.49
Gallon per EDU for Capacity Part (1)		241.2	241.2
Collection Tapping Fee per EDU		\$495.09	\$842.74
(1) Average Household Size Per 2010 Census for Heidelberg Township		2.68	
Gallons Per Capita Per Day Allowed Per Act 57 of 2003		90	
Total Gallons Per Day Per EDU		241.2	

**Exhibit F**  
**Lehigh County Authority - Central Lehigh Division**  
**Lehigh County, Pennsylvania**  
**Calculation of Sewer Tapping Fee**  
**Wynnewood Terrace System**

<b>A. <u>Capacity Part</u></b>	<b><u>Original Cost</u></b>	<b><u>Trended Cost</u></b>
Acquisition Costs	\$247,393	\$400,616
System Improvements - Prior to 2012	3,990	4,715
System Improvements - 2012	32,645	38,571
System Improvements - 2013	55,264	63,487
System Improvements - 2014	67,642	75,884
WWTP Improvements - 2015	21,241	23,093
WWTP Improvements - 2016	5,080	5,436
WWTP Improvements - 2017	26,094	26,835
	<u>\$459,349</u>	<u>\$638,637</u>
Less: Contributions	-	-
Net Capital	<u>\$459,349</u>	<u>\$638,637</u>
Financing Costs for Capacity Part	-	-
Total Cost of Capacity Part	<u>\$459,349</u>	<u>\$638,637</u>
Plus: Interest Paid On Debt	-	n/a
Less: Outstanding Debt	n/a	-
Eligible Cost for Capacity Part	<u>\$459,349</u>	<u>\$638,637</u>
Total Capacity	60,000	60,000
Capacity Tapping Fee per Gallon	\$7.66	\$10.64
Gallon per EDU for Capacity Part (1)	241.2	241.2
Capacity Tapping Fee per EDU	\$1,846.58	\$2,567.32

**Exhibit F**  
**Lehigh County Authority - Central Lehigh Division**  
**Lehigh County, Pennsylvania**  
**Calculation of Sewer Tapping Fee**  
**Wynnewood Terrace System**

<b>B. <u>Collection Part</u></b>	<b><u>Original Cost</u></b>	<b><u>Trended Cost</u></b>
Acquisition Costs	\$406,318	\$657,972
Riverside Prof Cntr Additions - 2012	132	156
Riverside Prof Cntr Additions - 2013	1,476	1,695
Wynnewood I&I Project - 2013	Excluded - Repairs ———— 24,096	
Wynnewood I&I Project - 2014	Excluded - Repairs ———— 17,020	
Main, PS & Force Main - 2015	645,390	701,671
Main, PS & Force Main - 2016	102,876	110,075
Main, PS & Force Main - 2017	517	531
	<u>\$1,156,709</u>	<u>\$1,472,101</u>
Less: Contributions	-	-
Net Capital	<u>\$1,156,709</u>	<u>\$1,472,101</u>
Financing Costs for Collection Part	-	-
Total Cost of Collection Part	<u>\$1,156,709</u>	<u>\$1,472,101</u>
Plus: Interest Paid On Debt	-	n/a
Less: Outstanding Debt	n/a	778,492
Eligible Cost for Capacity Part	<u>\$1,156,709</u>	<u>\$693,609</u>
Total Capacity	60,000	60,000
Collection Tapping Fee per Gallon	\$19.28	\$11.56
Gallon per EDU for Capacity Part (1)	241.2	241.2
Collection Tapping Fee per EDU	\$4,649.97	\$2,788.31
(1) Average Household Size Per 2010 Census for North Whitehall Township	2.68	
Gallons Per Capita Per Day Allowed Per Act 57 of 2003	90	
Total Gallons Per Day Per EDU	<u>241.2</u>	

**Exhibit G**  
**Lehigh County Authority - Central Lehigh Division**  
**Lehigh County, Pennsylvania**  
**Calculation of Sewer Tapping Fee**  
**Sand Spring Wastewater System**

<b>A. <u>Capacity Part</u></b>	<b><u>Original Cost</u></b>	<b><u>Trended Cost</u></b>
Acquisition Costs	\$88,048	\$130,818
System Improvements - 2005	6,358	9,372
WWTP Improvements - 2015	20,683	22,487
WWTP Improvements - 2016	14,546	15,564
WWTP Improvements - 2017	30,008	30,861
	<u>\$159,644</u>	<u>\$209,102</u>
Less: Contributions	-	-
Net Capital	<u>\$159,644</u>	<u>\$209,102</u>
Financing Costs for Capacity Part	-	-
Total Cost of Capacity Part	<u>\$159,644</u>	<u>\$209,102</u>
Plus: Interest Paid On Debt	-	n/a
Less: Outstanding Debt	n/a	-
Eligible Cost for Capacity Part	<u>\$159,644</u>	<u>\$209,102</u>
Total Capacity	35,000	35,000
Capacity Tapping Fee per Gallon	\$4.56	\$5.97
Gallon per EDU for Capacity Part (1)	241.2	241.2
Capacity Tapping Fee per EDU	\$1,100.17	\$1,441.01

**Exhibit G**  
**Lehigh County Authority - Central Lehigh Division**  
**Lehigh County, Pennsylvania**  
**Calculation of Sewer Tapping Fee**  
**Sand Spring Wastewater System**

<b>B. <u>Collection Part</u></b>	<b><u>Original Cost</u></b>	<b><u>Trended Cost</u></b>
Acquisition Costs	\$58,452	\$86,846
System Improvements - 2010	5,980	7,486
System Improvements - 2012	3,256	3,847
System Improvements - 2013	21,882	25,138
	<u>\$89,570</u>	<u>\$123,317</u>
Less: Contributions	-	-
Net Capital	<u>\$89,570</u>	<u>\$123,317</u>
Financing Costs for Collection Part	-	-
Total Cost of Collection Part	<u>\$89,570</u>	<u>\$123,317</u>
Plus: Interest Paid On Debt	-	n/a
Less: Outstanding Debt	n/a	-
Eligible Cost for Capacity Part	<u>\$89,570</u>	<u>\$123,317</u>
Total Capacity	35,000	35,000
Collection Tapping Fee per Gallon	\$2.56	\$3.52
Gallon per EDU for Capacity Part (1)	241.2	241.2
Collection Tapping Fee per EDU	\$617.27	\$849.83
(1) Average Household Size Per 2010 Census for North Whitehall Township	2.68	
Gallons Per Capita Per Day Allowed Per Act 57 of 2003	<u>90</u>	
Total Gallons Per Day Per EDU	241.2	

# RESOLUTION No. 8-2017-1

(Duly adopted 28 August 2017)

## ***A RESOLUTION ESTABLISHING THE VARIOUS COMPONENTS OF THE LEHIGH COUNTY AUTHORITY CAPITAL RECOVERY FEES FOR VARIOUS SUBURBAN DIVISION 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, wastewater services; and

WHEREAS, the Authority owns and/or operates 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; and

WHEREAS, the Authority has calculated the allowable basis for such fees for certain of its Suburban Division wastewater systems in accordance with the attached calculations and its Summary of Selected Wastewater Fund Capital Recovery Fees (including Exhibits \_\_\_\_\_ through \_\_\_\_\_), 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 wastewater service in various of the Authority's Suburban Division wastewater systems as indicated and shown on Summary of Selected Wastewater Fund Capital Recovery Fees, with supporting calculations reflected on Exhibits \_\_\_\_\_ through \_\_\_\_\_, attached hereto and made a part hereof, are adopted effective \_\_\_\_\_ 2017.

2. The Authority's Wastewater Schedules of Rates and Charges shall be amended to reflect the fees hereby adopted, which fees shall be effective as of \_\_\_\_\_ 2017.

On motion of \_\_\_\_\_, seconded by \_\_\_\_\_, this Resolution was adopted the 28<sup>th</sup> day of August 2017.





1053 SPRUCE ROAD \* P.O. BOX 3348 \* ALLENTOWN, PA 18106-0348  
610-398-2503 \* FAX 610-398-8413 \* [www.lehighcountyauthority.org](http://www.lehighcountyauthority.org)  
email: [service@lehighcountyauthority.org](mailto:service@lehighcountyauthority.org)

## MEMORANDUM

---

**TO:** LCA Board of Directors  
**FROM:** Liesel Gross  
**DATE:** August 21, 2017  
**RE:** 2018 Budget Development Process

LCA's annual budget is developed on a rather short time schedule in order to accommodate the results of the capital planning discussions that are under way, and to ensure budget adoption prior to November 1<sup>st</sup>, as required by the trustee of our lease bonds. The basic process flows as follows:

Board Meeting Date	Planned Agenda Item
8/14/2017	Capital Plan Distribution
8/28/2017	Capital Plan Presentation – Projects & Financials
9/11/2017	Preliminary Budget / Budget Assumptions Presented
9/11/2017	Capital Plan Additional Discussion / Public Input Review
9/11/2017	Suburban Division Water Rate Study – Review of Assumptions
9/25/2017	Preliminary Rate Approval – Western Lehigh Interceptor
9/25/2017	Capital Plan Approval
10/9/2017	Suburban Division Water Rate Study – Review of Results
10/9/2017	Preliminary Budget Presented & Discussed
10/23/2017	Final Budget Approval*

*\*If additional time is required to address Board concerns about the budget, and Special Meeting can be held on 10/30/2017.*

As you can see, month of September includes some important discussions for the Authority regarding the Capital Plan, Suburban Division water rates, and other topics. These are all necessary components to finalize a budget proposal for 2018 to be presented in October.

At the meeting on August 28, 2017, Ed Klein will be available to address questions the Board may have about the series of meetings and discussion between now and October 23, 2017 when we hope to have a final budget available for approval.

Should you have any questions or concerns about this schedule, please contact me.

---

## MEMORANDUM

---

**Date:** August 14, 2017

**To:** Lehigh County Authority Board  
**From:** Amy Kunkel, LCA Project Engineer  
Chuck Volk, Chief Capital Works Officer  
**Subject:** Suburban Division – Buss Acres Pump  
Station Replacement- Design Phase

### **MOTIONS / APPROVALS REQUESTED**

<b>No.</b>	<b>Item</b>	<b>Amount</b>
1	Capital Project Authorization – Design Phase	\$167,405
2	Professional Services Authorization – Buchart Horn (1), (2)	\$92,405

(1) *Included in the Capital Project Authorization.*

(2) *Does not includes Construction phase related engineering services.*

### **PROJECT OVERVIEW**

The Buss Acres Water System (also known as the Upper Milford Central Division) is a small “developer built” system that was acquired by LCA in 2006 and serves 98 residential homes and 2 commercial properties. There are two wells, each with its own well station and hydropneumatic tank. UMCD-3 is permitted at 79 GPM and is located at the end of Gary Drive and UMCD-2 is permitted at 45 GPM and is located at the end of Laurie Drive. Water from the two wells is treated with sodium hydroxide for pH adjustment and liquid sodium hypochlorite for chlorination at each station and discharged into the distribution system from each station’s buried hydropneumatic tanks. The hydropneumatic tanks at both facilities have exceeded their useful life and are not in compliance with regulatory requirements for pressure vessels. In addition, both well house facilities were evaluated as part of the 2016 Asset Management Evaluation and numerous deficiencies were identified.

In 2007 PaDEP selected LCA to participate in a sampling program for radon to monitor the levels in the water supply at both the entry points. Sampling results showed elevated radon levels. Radon is currently not regulated, but the US EPA has been considering mandating limits. In 2013 a Radon Mitigation Study was prepared by Cowan and Associates, Inc. to evaluate alternatives for reducing radon levels in the drinking water supply. The conceptual construction cost for a radon mitigation alternative presented in the study was approximately \$1.2 million at the existing Gary well station.

The proposed project involves the consolidation of both stations on the largest well station parcel (Gary Drive) with a single new pump station and a new, larger water storage tank. The new station will be a variable frequency drive controlled double pumping system with full SCADA telemetry/control. Design provisions will be incorporated to facilitate the future addition of radon mitigation equipment, conditioned on the establishment of a regulatory limit. The engineer will also evaluate the feasibility and costs to provide fire protection to customers (currently there is no fire protection provided).

### **FUNDING**

This Project will be funded by the LCA Suburban Division

**BUDGET AMENDMENT**

Not required for this approval

**PROJECT STATUS**

Pending Board approval of the Design Phase.

**THIS APPROVAL-DESIGN PHASE**

Lehigh County Authority (LCA) intends to retain the services of an engineering consulting firm to provide design related services. Approval for construction related engineering services will be requested with the Construction Phase. The following table summarizes the professional services to be performed:

<b>Professional Services <sup>(1)</sup></b>
1. Attend kickoff meeting.
2. Evaluate well pumps, fire protection system and costs, and radon removal system and costs.
3. New pump station and tank design. New raw waterline design from Laurie well site to Gary well site.
4. Apply for and secure state and local permits.
5. Prepare construction bid documents (plans and specifications).
6. Provide bidding services

1. For Design Phase Only.

**CONSULTANT SELECTION PROCESS**

Four engineering firms, Buchart Horn, Cowan Associates, SSM Group, and Carroll Engineering were invited to submit proposals for the project in July 2017. The firms were selected based on prior LCA project performance and/or general expertise with water booster stations. Individual pre-proposal meetings were held with each consultant on June 29 and 30, 2017 at the Buss Acres well sites where the consultants were able to tour the facilities, assess the conditions and ask questions related to the design work. Proposals were received on July 24, 2017, the results of which follow:

<b>Consultant</b>	<b>Cost <sup>(1)</sup></b>
Cowan Associates	\$90,180
Carroll Engineering	\$91,109
<b>Buchart Horn</b>	<b>\$92,405</b>
SSM Group, Inc.	\$153,000

(1) Total Proposal Cost

Based upon our review of all aspects of both the Technical and Cost Proposals submitted by the four firms, we recommend award of the Design Phase services to Buchart Horn. Their proposal best demonstrates understanding of the project scope, consideration of innovative design elements, and represents what we believe is the best overall value for the Authority. Buchart Horn will perform the services outlined in their proposal dated July 24, 2017.

**BUCHART HORN -COMPANY INFORMATION & REFERENCE CHECK**

Buchart Horn is a multi-disciplinary engineering consulting firm headquartered in York, PA, with regional offices located in seven states. With more than 200 professional and support staff, BH has sufficient personnel in the required disciplines to guarantee continuity and continued progress on all disciplines this contract requires. Using staff based in the Marlton NJ office, augmented by staff available in York, PA and elsewhere as necessary, personnel will be assigned to meet the needs of this project. Buchart Horn's project references include projects of similar scope and size.

**PROJECT SCHEDULE**

Assuming Board authorization of design phase at the 8/14/17 meeting, this project is anticipated to be bid in March 2018 with completion of the work in early 2019.

**FUTURE AUTHORIZATIONS- CONSTRUCTION PHASE**

After the construction contract(s) bids are received, a Capital Project Authorization (CPA) Amendment will be presented to the Board for approval of the Construction Phase and will include construction contract award(s), professional services amendment for construction related services, staff costs and other related components.

## CAPITAL PROJECT AUTHORIZATION

<b>PROJECT NO.:</b>	<u>SD-W-17-4</u>	<b>BUDGET FUND:</b>	<u>Suburban Div\Water\Capital</u>
<b>PROJECT TITLE:</b>	<u>Buss Acres Pump Station Replacement</u>	<b>PROJECT TYPE:</b>	<input checked="" type="checkbox"/> Design for Construction <input type="checkbox"/> Engineering Study <input type="checkbox"/> Equipment Purchase <input type="checkbox"/> Amendment
<b>THIS AUTHORIZATION:</b>	<u>\$167,405</u>		
<b>TO DATE (W/ ABOVE)</b>	<u>\$167,405</u>		

### DESCRIPTION AND BENEFITS:

This Project will include combining two well booster stations into a single double pumping system and new water storage tank with a consolidated raw water treatment system, and upgrade of the SCADA system. The feasibility and costs of installing fire protection and radon removal systems will also be evaluated. Buchart Horn will be used for the engineering consulting services. The project is anticipated to be bid ready by March of 2018.

Reference the attached Memorandum for additional information.

Previous Authorizations	
none	\$0

REQUESTED THIS AUTHORIZATION	
Design Phase	
Staff	\$40,000
Engineering Consultant – Buchart Horn	\$92,405
Misc.	\$10,000
Contingency	\$25,000
<b>Total This Authorization</b>	<b>\$167,405</b>

Future Authorization	
Construction Phase	\$1,092,595

<i>Total Estimated Project</i>	<i>\$1,260,000</i>
--------------------------------	--------------------

### REVIEW AND APPROVALS:

_____ Project Manager	_____ Date	_____ Chief Executive Officer	_____ Date
_____ Chief Capital Works Officer	_____ 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:** Buchart Horn  
2 Eves Drive  
Suite 110  
Marlton, NJ 08053-3127

**Date:** August 7, 2017

**Requested By:** Amy Kunkel

**Approvals**

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

**Chief Executive**

**Officer:** \_\_\_\_\_

### Suburban Division- Buss Acres Pump Station Replacement

Previous Authorizations- None.

**This Authorization – Design Phase: \$92,405**

Buchart Horn will provide Design Services for the aforementioned project in accordance with the RFP and as outlined in their proposal dated July 24, 2017.

Professional Services <sup>(1)</sup>
1. Attend kickoff meeting.
2. Evaluate well pumps, fire protection system and costs, and radon removal system and costs.
3. New pump station and reservoir design. New raw waterline design from Gary well site to Laurie well site.
4. Apply for and secure state and local permits.
5. Prepare construction bid documents (plans and specifications).
6. Provide bidding services

(1) For Design Phase Only

**Cost Estimate** (not to be exceeded without further authorization): **\$ 92,405**

**Time Table and Completion Deadline:** As required to meet design timeline requirements

---

---

(For Authority Use Only)

**Authorization Completion:**

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



**LEHIGH COUNTY AUTHORITY**

1053 SPRUCE ROAD \* P.O. BOX 3348 \* ALLENTOWN, PA 18106-0348  
610-398-2503 \* FAX 610-398-8413 \* [www.lehighcountyauthority.org](http://www.lehighcountyauthority.org)  
email: [service@lehighcountyauthority.org](mailto:service@lehighcountyauthority.org)

## MEMORANDUM

---

**TO:** LCA Board of Directors  
**FROM:** John Parsons, Chief Operating Officer  
**DATE:** August 21, 2017  
**RE:** Water Main Break on Hamilton Boulevard

On June 22, 2017, there was a water main break on a 16" line located at 7450/7491 Hamilton Blvd. During the early stages of the repair, it was noticed that the pipe was corroding from the outside in along a section of pipe well beyond the immediate leak. Because of this, the repair that was performed that day would be considered "temporary" until we would be able to coordinate the pipe replacement for the section that was eventually going to fail. A spot repair using a repair clamp was not a long-term solution for the remainder of the affected section of pipe.

In order to perform a local water shutdown and isolation, we needed to install a 16" valve on the main. In order to do so, this project was performed in two phases, the temporary repair and the permanent fix. The company that could provide the quickest turnaround on the Insta-Valve was AVT Services. Scheuermann was the low quote for the excavation and replacement of main.

**Total Costs for the temporary repair:**

Scheuermann Excavating, Inc.	Excavation	\$5,889.67
AVT Service Technologies, LLC.	Insta-Valve	\$29,550.00
Pennsylvania Lawn & Landscape	Restoration	\$850.00

**Total Cost for the replacement of 16' of 16" water main:**

Scheuermann Excavating, Inc.	Excavation and Repair	\$28,787.14
Pennsylvania Lawn & Landscape	Restoration	\$366.92
Scheuermann Excavating, Inc.	Paving	\$7,972.00

**Total Cost for complete the project:** \$73,415.73

With the total cost of this repair in excess of \$50,000, we are seeking a retroactive emergency declaration to cover the expenditures for the event.

Respectfully,

John Parsons, Chief Operating Officer

CC: Liesel Gross, Chief Executive Officer  
Edward Klein, Chief Financial Officer  
Patricia Walck, Purchasing Agent

---

## MEMORANDUM

---

**Date:** August 14, 2017

**To:** Lehigh County Authority Board

**From:** Phil DePoe, Capital Works Program Manager

**Subject:** Allentown Division – Kline’s Island WWTP 2017 Clarifier Equipment Replacement: Construction Phase

**MOTIONS / APPROVALS REQUESTED:**

No.	Item	Amount
1	Capital Project Authorization – Construction Phase	\$879,592
2 <sup>(1)</sup>	Professional Services Authorization – D’Huy Engineering	\$19,400
3 <sup>(1)</sup>	General Contract Award – Blooming Glen Contractors WW	\$785,192

*(1) Included in the Capital Project Authorization.*

**PROJECT OVERVIEW:**

In December 2016, the drive unit of Final Clarifier #5 at Kline’s Island WWTP experienced a complete failure. The drive was the original unit that was installed during construction of the clarifier in 1968. A new drive was installed in April 2017 and is now fully operational. The remaining steel mechanisms of Final Clarifier #5 and the drive unit and similar steel mechanisms of Final Clarifier #6 have also reached the end of their useful life. All will be replaced during this project. In addition, both clarifiers will receive new fiberglass launder covers.

**FINANCIAL:**

This Project will be funded by the LCA Allentown Division.

**PROJECT STATUS:**

The project was advertised for bid on July 13, 2017. A mandatory pre-bid meeting was held on July 19, 2017. Bids were received on August 3, 2017.



**THIS APPROVAL – CONSTRUCTION PHASE:**

The construction phase includes activities that are necessary to install the new clarifier equipment. The General Contractor will be responsible for all construction activities. The design engineer will be responsible for periodic oversight of the construction, which will be supplemented by in-house project management provided by LCA.

**BIDDING SUMMARY:**

The project requires a General Construction (GC) Contract. The bid results are summarized below:

<b>Bidder</b>	<b>Bid Results</b>
<b>Blooming Glen Contractors WW</b>	<b>\$785,192</b>
Heisey Mechanical, Ltd.	\$830,357
Eastern Environmental Contractors, Inc.	\$839,800
JEV Construction LLC	\$862,500
DESCCO Design Construction, Inc.	\$856,507
JP Environmental, LLC	\$919,765
Allan Myers	\$937,687
Hickers Associates, Inc.	\$950,285
Quad Construction Company	\$985,200
GMH Associates	\$1,206,395.90

Based upon the review of the bids, we recommend award of the General Construction contract to Blooming Glen, subject to the receipt of the necessary Performance Bonds, Insurance and other required documentation. LCA staff has reviewed the supplied references and Blooming Glen is qualified to complete this project. In fact, this contractor has completed numerous jobs for LCA at the WWTP over the past few years.

**PROFESSIONAL SERVICES:**

D'Huy Engineers has been our design consultant on this project and will provide construction engineering and on-site inspection services for the construction phase of the project. Their work will also include:

1. Prepare for, attend, and facilitate a pre-construction conference
2. Prepare for and attend three job conference meetings
3. Review and approve contractor's submittals and respond to RFIs
4. Process and necessary change orders
5. Provide limited construction observation
6. Prepare punch list and final project close-out
7. As-built drawing preparation

**PROJECT SCHEDULE:**

The specifications require the project to be complete by the end of February 2018.

**FUTURE AUTHORIZATIONS:**

No future authorizations are anticipated for this project.

## CAPITAL PROJECT AUTHORIZATION

<b>PROJECT NO.:</b>	<u>AD-S-17-2G</u>	<b>BUDGET FUND:</b>	<u>Allentown Div\Wastewater\Capital</u>
<b>PROJECT TITLE:</b>	<u>Allentown Division – Kline’s Island WWTP 2017 Clarifier Equipment Replacement: Construction Phase</u>		<b>PROJECT TYPE:</b>
<b>THIS AUTHORIZATION:</b>	<u>\$879,592</u>	<input checked="" type="checkbox"/>	Construction
<b>TO DATE (W/ ABOVE)</b>	<u>\$974,992</u>	<input type="checkbox"/>	Engineering Study
		<input type="checkbox"/>	Equipment Purchase
		<input checked="" type="checkbox"/>	<b>Amendment No. 1</b>

### DESCRIPTION AND BENEFITS:

In December 2016, the drive unit on Final Clarifier #5 at Kline’s Island WWTP experienced a complete failure. The drive was the original unit that was installed during construction of the clarifier in 1968. The new drive was installed in April 2017 and is now fully operational. The remaining steel mechanisms of Final Clarifier #5, and the drive unit and similar mechanisms of Final Clarifier #6 have also reached the end of their useful life and will be replaced during this project.

This capital project will be funded by the LCA Allentown Division.

Please see attached Board Memo for further project details.

### Authorization Status:

Previous Authorizations	
Design Phase	\$36,000
Purchase of Clarifier #5 Drive Unit	\$59,400

Requested This Authorization	
<b>Construction Phase</b>	
Staff	\$15,000
Construction Contractor	\$785,192
Engineering Consultant	\$19,400
Miscellaneous	10,000
Contingency	50,000
<b>Total This Authorization</b>	<b>\$879,592</b>

Future Authorizations	None Anticipated
Total Estimated Project	\$974,992

### REVIEW AND APPROVALS:

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



**Lehigh County Authority**

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

**PROFESSIONAL SERVICES AUTHORIZATION  
AMENDMENT NO. 1**

**Professional:** D'HUY ENGINEERING, INC.  
One East Broad Street, Suite 310  
Bethlehem, PA 18018

**Date:** August 14, 2017  
**Requested By:** Phil DePoe

**Approvals**

**Department Head:** \_\_\_\_\_  
**Chief Executive Officer:** \_\_\_\_\_

**Allentown Division – Kline's Island WWTP 2017 Clarifier Equipment Replacement: Construction Administration Phase**

D'Huy Engineering, Inc. will assist LCA with construction administration support for the clarifier equipment replacement project.

**This Authorization** – Professional Services Authorization Amendment No. 1: **\$19,400**

<b>Professional Services (1)</b>
1. Prepare for, attend, and facilitate a pre-construction conference
2. Prepare for and attend three job conference meetings
3. Review and approve contractor's submittals and respond to RFIs
4. Process and necessary change orders
5. Provide limited construction observation
6. Prepare punch list and final project close-out
7. As-built drawing preparation

(1) For construction administration phase services only.

**Previous Authorizations** – Design Phase: \$28,500

This amendment addresses construction administration services that were not specifically accounted for in the original authorization.

**Cost Estimate** (not to be exceeded without further authorization): **\$47,900**

**Time Table and Completion Deadline:** As required to meet various critical deadlines as set forth in the proposal.

---

---

**(For Authority Use Only)**

**Authorization Completion:**

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

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

Arcadis U.S., Inc.  
1128 Walnut Street  
Suite 400  
Philadelphia  
Pennsylvania 19107  
Tel 215 625 0850  
Fax 215 625 0172  
[www.arcadis.com](http://www.arcadis.com)

Subject:  
2017 SCARP Improvement Implementation Plan

Dear Ms. Mandes:

ARCADIS is pleased to provide Lehigh County Authority (LCA) with this scope and budget to prepare the draft and final 2017 SCARP Improvements Implementation Plan (2IP) for submission to PADEP and USEPA by December 31, 2017 and to document the work completed to date for future reference.

## **OBJECTIVES**

The goal of this work is present a capital improvements implementation plan that:

- Dovetails with the City of Allentown's pending AO Corrective Action Plan
- Gains Western Lehigh Sewer Partnership acceptance
- Provides flexibility for scope and implementation of Phase 2 project
- Is approvable by PADEP and USEPA.

## **SCOPE OF WORK**

### **TASK 1 – DEVELOP DETAILED PLAN OUTLINE**

Arcadis will prepare a detailed plan outline for the 2IP for review by LCA, the WLSP, and outside counsel, and for comment and input by City of Allentown (City). This detailed outline will identify all subsections, figures, tables, graphs, etc., anticipated in the report and provide a bulleted outline of what will be discussed in each subsection. The purpose of this step is to:

- Ensure internal documentation of both completed evaluations and determinations and future work are sufficiently detailed to allow implementation of the SCARP consistent with the 2017 intent through the start of Phase 2 in 2028. For example:
  - The identified and the completed clearwater disconnections are only captured in various semiannual reports; there is no single database of findings and corrections. This is true for most of the SSES findings.

Date:  
June 16, 2017

Contact:  
Jim Shelton

Phone:  
302.723.1450

Email:  
James.Shelton@arcadis.com

Our ref:  
60000247.0058

- The Source Reduction Program areas have been reported in various powerpoints, but limited actual documentation of why these areas are prioritized has been made.
- The KISS model calibration, weaknesses, and various model runs have not been formally documented.
- The cost estimates and cash flows for the selected approach have not been formally documented.
- Make early decisions about what information should be included in the regulatory plan submission versus what should be documented for ongoing implementation.

## **TASK 2 – DEVELOP DRAFT PLAN**

Arcadis will prepare a detailed draft outline for the 2IP for review by LCA, the WLSP, and outside counsel, and for comment and input by City of Allentown (City). This detailed draft will be preliminarily written around the below table of contents.

### **1. Introduction**

- 1.1. Regulatory History and Background
- 1.2. System Description
- 1.3. Satellite System Contractual Obligations to LCA
- 1.4. LCA Contractual Obligations to City of Allentown
- 1.5. Western Lehigh Interceptor Overflow History

### **2. Hydraulic Condition Assessment**

- 2.1. Flow and Rain Monitoring
- 2.2. Model Development
- 2.3. Design Conditions for Evaluations
- 2.4. Model Findings
- 2.5. SSES Program Implementation
- 2.6. Clearwater Connections
- 2.7. Leaking Public Sewers
- 2.8. Private Sewer Leakage

### **3. Underlying Reasons for WLI SSOs**

- 3.1. Generalized Problem Definition
- 3.2. Specific Issues Contributing to SSOs
  - 3.2.1. Design Capacity of WLI and Its Trunklines
  - 3.2.2. Anticipated Growth
  - 3.2.3. Industrial Expansions
  - 3.2.4. Inflow and Infiltration
  - 3.2.5. Downstream City of Allentown Sewer Capacity and Treatment Plant Limitations

### **4. Alternative Analysis Summary<sup>1</sup>**

- 4.1. Objectives
  - 4.1.1. Elimination of Overflows

- 4.1.2. Dry Weather Operating Depth Goals
- 4.1.3. Wet Weather Operating Depth Goals
- 4.2. Preliminary Screening of Alternatives
- 4.3. Final Screening of Alternatives
- 4.4. Selected Approach
- 4.5. System Upgrades Necessary for Future Flows
- 5. Level of Protection Goals
  - 5.1. Level of Protection Evaluation
  - 5.2. Regulatory Level of Protection Goal
  - 5.3. Hydraulic Basis of Design for Improvements
    - 5.3.1. 10 Year Depth of Flow Reoccurrence
- 6. Improvements Plan Overview
  - 6.1. Phase 1
  - 6.2. Interregnum
  - 6.3. Phase 2
  - 6.4. CMOM Plans
- 7. Phase 1 Improvements
  - 7.1. Source Reduction Programs
  - 7.2. Interim Flow and Rain Monitoring and KISS Model Recalibration
  - 7.3. Park Pump Station Refurbishment
  - 7.4. Park Pump Station Forcemain and ARV Rehabilitation
  - 7.5. Spring Creek Pump Station Wet Well and Operating Logic Modifications
  - 7.6. Spring Creek Pump Station Force Main and ARV Rehabilitation
  - 7.7. Trexlertown Interceptor Paralleling
  - 7.8. Iron Run Pump Station and Forcemain
- 8. Interregnum 8-1
  - 8.1. 2026 Flow and Rain Fall Monitoring
    - 8.1.1. WLSP Metering Network
    - 8.1.2. Allentown and Other Signatory Metering Network
  - 8.2. 2026 KISS Model Recalibration
  - 8.3. 2026 Level of Protection Evaluation
  - 8.4. Act 537 Future Development Flow Predictions for 2030, 2040, and 2050 Planning Horizons
  - 8.5. Phase 2 Confirmation of Approach
  - 8.6. Sizing of New Conveyance and Storage
  - 8.7. Sizing of Little Sister Pump Station and Forcemain
  - 8.8. Sizing of Klines Island Peak Flow Treatment Facilities
  - 8.9. Negotiation with Other Signatories and Allentown for Allocation of Costs for Common Conveyance, Storage, and Treatment Facilities
- 9. Currently Anticipated Phase 2 Improvements
  - 9.1. Little Sister Pump Station and Forcemain
  - 9.2. Kecks Bridge Interceptor

- 9.3. Upper Milford Relief Trunkline
- 9.4. Alburtis Macungie Relief Trunkline
- 9.5. Ancient Oaks Interceptor
- 10. Final Level of Protection Proof
  - 10.1. 2038 Flow and Rain Fall Monitoring
  - 10.2. 2038 KISS Model Recalibration
  - 10.3. 2038 Final Level of Protection Proof
- 11. Progress Reporting
  - 11.1. Annual Reports
  - 11.2. Development Flow Credits Reporting
  - 11.3. Phase 2 Improvements Plan
  - 11.4. Final Level of Protection Proof Report

### **TASK 3 – DRAFT PLAN REVIEWS**

Arcadis will provide full hard copy and pdf copies of the draft report to LCA and the WLSP at the 70% and 95% complete stage. Arcadis will collate the comments from these two submittals and provide consolidated tracked changes documents for review by Arcadis as part of the monthly WLSP Engineer and Municipal Leader meetings.

### **TASK 4 – PREPARE FINAL PLAN**

Arcadis will prepare the final 2IP for ratification by the WLSP and submission to USEPA and PADEP.

### **DELIVERABLES**

The following deliverables will be made:

- Detailed 2IP outline
- 70% 2IP draft
- 95% 2IP draft
- Final 2IP.

### **BUDGET ESTIMATE**

It is difficult to accurately assess the level of effort for this assignment. We estimate this work will take 440 hours and a cost of \$75,000. We propose to complete these services on a time and materials basis in accordance with the June 17, 1997 Agreement with LCA and the current Summary of Standard Charges for Lehigh County Authority. We will not exceed this budget without prior authorization from LCA. Payment for services will be based upon the actual labor and expenses incurred.

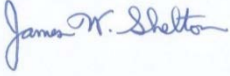
Please contact me with your authorization to proceed if this scope and budget are acceptable to you. If you have any questions, please do not hesitate to call me.



Ms. Pat Mandes  
August 7, 2017

Sincerely,

Arcadis U.S., Inc.

A handwritten signature in blue ink that reads "James W. Shelton". The signature is written in a cursive style with a large initial "J" and a stylized "W".

James W. Shelton, PE  
Vice President

Copies:

PROJECT NO.:	S-08-5	BUDGET FUND:	WLI Sewer Capital
PROJECT TITLE:	Signatory I & I Investigation/Remediation Program		PROJECT TYPE:
TOTAL PROJECT	Prior:	\$6,638,331	<input type="checkbox"/> Construction
THIS AUTHORIZATION	Current:	\$75,000	<input type="checkbox"/> Engineering Study
			<input type="checkbox"/> Equipment Purchase
			<input checked="" type="checkbox"/> Amendment

Based on the EPA Compliance Order and the PADEP Chapter 94 requirements, LCA and the LCA Signatories are required to reduce infiltration and inflow from the system and eliminate SSOs from the LCA and Signatory sewer systems. The SCARP Program has been developed to investigate the sources of I & I and to remediate areas identified as having excessive I & I. The SCARP Program consists of engineering tasks necessary to define and quantify the problems, to evaluate methods of redress and to determine the corrective actions required to meet the regulatory requirements and prepare the CAP and schedule to be submitted to EPA by December 31, 2017.

## Task 4: Finalize Summary Document and Prepare Final Draft Capital Improvements Implementation Plan for Submission to Regulators

Previously Approved		This Amendment	Total Approval
Flow Monitoring ADS (thru 2014)	\$1,775,031		\$ 1,775,031
Flow Monitoring TFE	\$294,000		\$294,000
Engineering Consulting	\$2,629,300	\$75,000	\$2,704,300
Rehabilitation	\$1,590,000		\$1,590,000
Staff	\$330,000		\$330,000
Contingencies	\$20,000		\$20,000
<b>Totals</b>	<b>\$6,713,331</b>		<b>\$6,713,331</b>



Lehigh County Authority

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

## PROFESSIONAL SERVICES AUTHORIZATION

### AMENDMENT NUMBER 28

**Professional:**

Arcadis  
Jim Shelton  
1128 Walnut St.  
Philadelphia, PA 19107

**Date:** 7/26/17

**Requested By:** Pat Mandes

**Approvals**

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

**Chief Executive**

**Officer:** \_\_\_\_\_

---

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

This is an amendment to the current Arcadis authorization for the WLI EPA Administrative Order Project: The work covered by this amendment includes preparation of a summary of the work that has been completed on the I & I project including the investigative and planning phases for future reference and for preparation of the Capital Improvements Implementation Plan to be submitted to the EPA and DEP by the interim deadline of December 31, 2017:

Task 1: Develop Detailed Summary and Draft Capital Improvements Implementation Plan Outlines

Task 2: Develop Draft Summary Document and Draft Capital Improvements Implementation Plan

Task 3: Draft Summary and Draft Capital Improvements Implementation Plan Review by LCA and Partners and Revisions

Task 4: Finalize Summary Document and Prepare Final Draft Capital Improvements Implementation Plan for Submission to Regulators

The scope of work is described in more detail in the proposal dated June 16, 2017.

**Cost Estimate (not to be exceeded without further authorization):** This amendment is not to exceed \$75,000 for Document Preparation.

**Time Table and Completion Deadline:**

No later than December 25, 2017

---

**(For Authority Use Only)**

**Authorization Completion:**

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

Capital Project S-08-05, Signatory I & I Investigation/Remediation Program



# LEHIGH COUNTY AUTHORITY

FINANCIAL REPORT – JULY 2017

## FINANCIAL REPORT JULY 2017

### 1. SUMMARY

#### A. Month

MONTH	JULY 2017						
	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
<b>Income Statement</b>							
Suburban Water	29,437	133,650	99,356	92,894	(104,213)	(69,919)	(63,457)
Suburban Wastewater	(458)	(132,656)	(11,223)	154,435	132,198	10,765	(154,894)
City Division	(1,358,736)	(3,043,575)	(851,291)	(712,912)	1,684,839	(507,445)	(645,824)
<b>Cash Flow Statement (Indirect)</b>							
Suburban Water	113,743	(162,671)	(419,877)	5,408	276,414	533,620	108,334
Suburban Wastewater	100,878	(301,676)	(304,169)	423,285	402,554	405,047	(322,407)
City Division	(286,375)	(1,454,501)	756,537	(1,463,921)	1,168,126	(1,042,912)	1,177,546

#### Net income

Suburban Water finished with a net income that was positive while the other two funds finished with losses. Despite Suburban Water having positive net income, this was unfavorable to forecast while Suburban Wastewater and City Division finished with losses that were lower than forecast.

The Suburban Water shortfall to forecast was driven mostly by lower operating and non-operating revenues with some offset from lower operating expenses. The favorable forecast variance on the Suburban Wastewater side is due to favorable variances across the board except for non-operating revenues. The City Division forecast variance is attributable to higher water and wastewater revenues along with higher reimbursement revenues.

#### Cash Flows

Suburban Water and Suburban Wastewater both had positive cash flows and both were better than forecast as well. City Division came in negative on cash flows, but were better than the negative cash flows forecasted and budgeted.

Compared to forecast, the primary driver of better than forecasted cash flows was lower capex spending as all three funds had lower spending than forecasted.

## B. YTD

	JULY 2017						
YTD	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
<b>Income Statement</b>							
Suburban Water	(233,351)	(129,137)	(137,847)	424,805	(104,213)	(95,504)	(658,156)
Suburban Wastewater	495,983	363,786	(194,279)	506,023	132,199	690,262	(10,040)
City Division	(2,395,641)	(4,080,479)	(6,823,160)	(5,152,964)	1,684,839	4,427,519	2,757,324
<b>Cash Flow Statement (Indirect)</b>							
Suburban Water	14,608,443	14,332,029	2,127,522	364,366	276,414	12,480,921	14,244,077
Suburban Wastewater	1,383,198	980,645	(2,244,901)	1,779,655	402,554	3,628,099	(396,457)
City Division	535,306	(632,819)	(2,348,225)	1,568,494	1,168,126	2,883,531	(1,033,188)
<b>Debt Service Coverage Ratio</b>							
Suburban Water	1.36	1.41	1.20	1.76	(0.05)	0.16	(0.40)
Suburban Wastewater	8.30	7.95	2.40	7.79	0.34	5.90	0.50
City Division	1.26	1.23	1.06	1.21	0.03	0.20	0.04

### Net income

Suburban Wastewater was the lone fund with a positive net income and that income is also better than both forecast and budget. The other two funds have reported losses for the year with Suburban Water also down a bit to both forecast and Budget, while the City Division is doing well despite the reported loss for the year as net income is much lower than the losses forecasted and budgeted.

Suburban Water fell below forecast and budget as a result of lower operating revenues with some aid from lower operating expenses. Against budget we have also been unfavorably impacted by higher interest expenses and fees on larger borrowing. Suburban Wastewater is up to both forecast and budget with lower operating expenses more than offsetting lower operating revenues and also aided on lower interest expenses from reduced borrowing needs. City Division is better than forecast and compared to budget has favorable variances across the board.

### Cash Flows

Good news on cash flows as all three funds have positive cash flows for the year and cash flows for all three funds are better than forecast and better than budget. Again, primary driver of the forecast and budget variances is lower capital spending, especially compared to budget for all three funds.

### Debt Service Coverage Ratio

Good Debt service coverage ratios for both City Division and Suburban Wastewater compared to forecast and budget. Suburban Water dropped below forecast but still remains above budget so far for the year. DSCR for the City continues to remain above the indenture target of 1.20 and above 8 for Suburban Wastewater is a pretty stellar figure.

## 2. SUBURBAN WATER

### A. Month

MONTH - SUBURBAN WATER	JULY 2017						
	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
<b>Income Statement</b>							
Operating Revenues	832,884	955,571	863,410	831,709	(122,687)	(30,526)	1,175
Operating (Expenses)	(683,446)	(752,471)	(734,533)	(683,585)	69,025	51,087	139
Operating Income	149,438	203,100	128,877	148,124	(53,662)	20,561	1,314
Non-Operating Revenues (Expenses)	7,720	33,407	66,167	44,326	(25,687)	(58,447)	(36,606)
Income Before Interest	157,158	236,507	195,044	192,450	(79,349)	(37,886)	(35,292)
Interest Income	7,808	14,143	16,667	(11,357)	(6,335)	(8,859)	19,164
Interest Expense	(135,529)	(117,000)	(112,355)	(88,199)	(18,529)	(23,174)	(47,329)
Capital Contributions	-	-	-	-	-	-	-
<b>NET INCOME</b>	<b>29,437</b>	<b>133,650</b>	<b>99,356</b>	<b>92,894</b>	<b>(104,213)</b>	<b>(69,919)</b>	<b>(63,457)</b>

Net income was on the positive side for the month as operating revenues outpaced operating expenses and interest expense. However, net income finished below forecast as a result of lower operating revenues and lower non-operating revenues along with higher interest expenses although favorable spending on operating expenses offset some of the previous variances. Operating revenues were down as expected subsidies on the Build America Bonds worth \$101k have been delayed and that accounts for most of the forecast variance in operating revenues. Operating expenses were lower than forecast for services and water purchases. Non-operating revenues were unfavorably impacted by lower tapping fees and higher capex expensed.

MONTH - SUBURBAN WATER	JULY 2017						
	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
<b>Cash Flow Statement (Indirect)</b>							
Net Income	29,437	133,650	99,356	92,894	(104,213)	(69,919)	(63,457)
Add: Depreciation & Amortization	245,832	245,832	245,833	245,832	-	(1)	-
Add: Non-Cash Interest Expense	-	(2,000)	-	(0)	2,000	-	0
Add: Capex Charged to Expense	34,030	25,314	8,333	48	8,716	25,697	33,982
Principal Payments	(139,066)	(139,000)	(152,816)	(136,665)	(66)	13,750	(2,401)
Investments Converting To Cash	-	-	-	-	-	-	-
New Borrowing	-	-	-	-	-	-	-
Capital Expenditures	(56,490)	(426,467)	(620,583)	(196,701)	369,977	564,093	140,211
<b>NET FUND CASH FLOWS</b>	<b>113,743</b>	<b>(162,671)</b>	<b>(419,877)</b>	<b>5,408</b>	<b>276,414</b>	<b>533,620</b>	<b>108,334</b>

The cash flows for the month were positive and additionally, cash flows were also better than the forecast from lower capital spending.

## B. YTD

YTD - SUBURBAN WATER	JULY 2017						
Income Statement	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Operating Revenues	5,106,942	5,229,629	5,210,531	5,014,389	(122,687)	(103,589)	92,553
Operating (Expenses)	(4,575,722)	(4,644,747)	(5,141,731)	(4,319,067)	69,025	566,009	(256,655)
Operating Income	531,220	584,882	68,800	695,321	(53,662)	462,420	(164,101)
Non-Operating Revenues (Expenses)	208,164	233,851	463,169	314,439	(25,687)	(255,005)	(106,276)
Income Before Interest Expense	739,383	818,732	531,969	1,009,761	(79,349)	207,414	(270,377)
Interest Income	47,665	54,000	116,669	32,695	(6,335)	(69,004)	14,970
Interest Expense	(1,020,399)	(1,001,870)	(786,485)	(617,651)	(18,529)	(233,914)	(402,748)
Capital Contributions	-	-	-	-	-	-	-
<b>NET INCOME</b>	<b>(233,351)</b>	<b>(129,137)</b>	<b>(137,847)</b>	<b>424,805</b>	<b>(104,213)</b>	<b>(95,504)</b>	<b>(658,156)</b>

We are reporting a loss for the year which is unfavorable to both forecast and budget. Compared to forecast net income is \$104k lower due to lower operating revenues and lower non-operating revenues offset partly by lower operating expenses. The major operating revenue variance is the delay in the subsidy. Operating expenses have run favorable throughout the year and this variance reflects lower spending on services and equipment. Non-operating have been plagued by lower reimbursement fees and higher expensed capital although we have seen some offset from higher than budgeted tapping fees. Interest expense will remain off to budget from the costs of a higher borrowing level. We borrowed \$15m for a three year period vs. \$5.9m for one year as budgeted.

YTD - SUBURBAN WATER	JULY 2017						
Cash Flow Statement (Indirect)	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Net Income	(233,351)	(129,137)	(137,847)	424,805	(104,213)	(95,504)	(658,156)
Add: Depreciation & Amortization	1,720,824	1,720,824	1,720,831	1,720,824	-	(7)	-
Add: Non-Cash Interest Expense	-	(2,000)	-	(0)	2,000	-	0
Add: Capex Charged to Expense	185,911	177,195	58,331	2,849	8,716	127,580	183,062
Principal Payments	(941,662)	(941,596)	(1,069,712)	(955,695)	(66)	128,050	14,033
Investments Converting To Cash	-	-	-	-	-	-	-
New Borrowing	15,292,006	15,292,006	5,900,000	-	-	9,392,006	15,292,006
Capital Expenditures	(1,415,286)	(1,785,263)	(4,344,081)	(828,417)	369,977	2,928,795	(586,869)
<b>NET FUND CASH FLOWS</b>	<b>14,608,443</b>	<b>14,332,029</b>	<b>2,127,522</b>	<b>364,366</b>	<b>276,414</b>	<b>12,480,921</b>	<b>14,244,077</b>

Cash flow is a positive figure driven by the magnitude of borrowing for capital projects. That positive cash flow is also favorable to forecast and to budget. Against forecast, we are favorable due, mainly, to lower capital spending. The favorable variance to budget is due to lower capital spending along with higher borrowing proceeds as we borrowed for a three year project horizon compared to one year for the budget.



### 3. SUBURBAN WASTEWATER

#### A. Month

MONTH - SUBURBAN WASTEWATER	JULY 2017						
Income Statement	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Operating Revenues	1,480,439	1,444,246	1,530,193	1,486,636	36,193	(49,754)	(6,198)
Operating (Expenses)	<u>(1,495,674)</u>	<u>(1,597,270)</u>	<u>(1,546,447)</u>	<u>(1,416,133)</u>	<u>101,596</u>	<u>50,773</u>	<u>(79,541)</u>
Operating Income	(15,235)	(153,024)	(16,254)	70,504	137,789	1,019	(85,739)
Non-Operating Revenues (Expenses)	<u>32,239</u>	<u>38,010</u>	<u>66,083</u>	<u>100,778</u>	<u>(5,771)</u>	<u>(33,844)</u>	<u>(68,538)</u>
Income Before Interest Expense	17,005	(115,014)	49,829	171,282	132,019	(32,824)	(154,277)
Interest Income	400	389	9,917	785	11	(9,517)	(385)
Interest Expense	(17,862)	(18,031)	(70,969)	(17,631)	169	53,107	(232)
Capital Contributions	-	-	-	-	-	-	-
<b>NET INCOME</b>	<b><u>(458)</u></b>	<b><u>(132,656)</u></b>	<b><u>(11,223)</u></b>	<b><u>154,435</u></b>	<b><u>132,198</u></b>	<b><u>10,765</u></b>	<b><u>(154,894)</u></b>

Net income was just a little on the negative side. In this fund, operating revenues were lower than operating expenses and we were able to close some of the gap with higher non-operating revenues. However, we are favorable with respect to forecast as the actual loss was lower than the forecasted loss. For the most part, we had favorable variances against all of the line items except for lower tapping fees causing a slightly unfavorable effect on non-operating revenues. Operating revenues were favorable to forecast with higher revenues from WLI being partially offset by lower revenues from the Wastewater Treatment Plant. Operating revenues were favorable driven by lower spending on maintenance and other services. Non-operating items were slightly unfavorable to forecast from lower tapping fees.

MONTH - SUBURBAN WASTEWATER	JULY 2017						
Cash Flow Statement (Indirect)	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Net Income	(458)	(132,656)	(11,223)	154,435	132,198	10,765	(154,894)
Add: Depreciation & Amortization	364,694	364,694	327,083	334,133	-	37,611	30,561
Add: Non-Cash Interest Expense	2,759	2,847	-	3,076	(88)	2,759	(317)
Add: Capex Charged to Expense	-	86	25,000	-	(86)	(25,000)	-
Principal Payments	(39,589)	(39,500)	(93,946)	(41,946)	(89)	54,357	2,358
Investments Converting To Cash	-	-	-	-	-	-	-
New Borrowing	-	-	-	-	-	-	-
Capital Expenditures	<u>(226,529)</u>	<u>(497,147)</u>	<u>(551,083)</u>	<u>(26,414)</u>	<u>270,618</u>	<u>324,554</u>	<u>(200,115)</u>
<b>NET FUND CASH FLOWS</b>	<b><u>100,878</u></b>	<b><u>(301,676)</u></b>	<b><u>(304,169)</u></b>	<b><u>423,285</u></b>	<b><u>402,554</u></b>	<b><u>405,047</u></b>	<b><u>(322,407)</u></b>

Cash flows were on the positive side and were better than forecast driven by favorable cash from operations along with lower capital spending.

## B. YTD

YTD - SUBURBAN WASTEWATER	JULY 2017						
Income Statement	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Operating Revenues	9,797,288	9,761,095	10,595,633	10,452,819	36,193	(798,345)	(655,531)
Operating (Expenses)	(9,948,293)	(10,049,890)	(10,825,129)	(10,606,302)	101,596	876,836	658,009
Operating Income	(151,005)	(288,794)	(229,496)	(153,483)	137,789	78,491	2,478
Non-Operating Revenues (Expenses)	770,303	776,074	462,581	773,856	(5,771)	307,722	(3,552)
Income Before Interest Expense	619,298	487,280	233,085	620,372	132,020	386,213	(1,074)
Interest Income	2,735	2,724	69,419	5,416	11	(66,684)	(2,682)
Interest Expense	(126,049)	(126,218)	(496,783)	(119,766)	169	370,734	(6,284)
Capital Contributions	-	-	-	-	-	-	-
NET INCOME	495,983	363,786	(194,279)	506,023	132,199	690,262	(10,040)

For the year, net income is positive and is better than forecast and budget.

Compared to forecast, net income was favorable across the board except for a small variance from lower tapping fees. Compared to budget, revenues are lower but that was more than offset by lower operating expenses additionally aided by higher tapping fees and lower expensed capex. Operating revenues are lower than budget with higher revenues from WLI service areas being more than offset by lower revenues from the Wastewater Treatment Plant. Operating expenses are very favorable to budget and that more than offset the lower revenue effect. Expense spending is lower on maintenance services, contract operator costs, and on materials & equipment. Interest income is down from lower available balances for investment and interest expense is favorable as we have not borrowed anything this year compared to a budgeted borrowing of \$10.9m.

YTD - SUBURBAN WASTEWATER	JULY 2017						
Cash Flow Statement (Indirect)	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Net Income	495,983	363,786	(194,279)	506,023	132,198	690,262	(10,040)
Add: Depreciation & Amortization	2,552,858	2,552,858	2,289,581	2,338,931	-	263,277	213,927
Add: Non-Cash Interest Expense	19,841	19,929	-	20,746	(88)	19,841	(905)
Add: Capex Charged to Expense	518	604	175,000	1,001	(86)	(174,482)	(483)
Principal Payments	(276,587)	(276,499)	(657,622)	(281,488)	(89)	381,035	4,901
Investments Converting To Cash	-	-	-	-	-	-	-
New Borrowing	-	-	-	-	-	-	-
Capital Expenditures	(1,409,415)	(1,680,033)	(3,857,581)	(805,557)	270,618	2,448,166	(603,858)
NET FUND CASH FLOWS	1,383,198	980,645	(2,244,901)	1,779,655	402,554	3,628,099	(396,457)

YTD cash flow is a positive figure and is better than both forecast and budget. Compared to forecast and budget, cash flows are favorable due to higher cash from operations along with lower capital spending.

#### 4. CITY DIVISION

##### A. Month

MONTH - CITY DIVISION	JULY 2017						
	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
<b>Income Statement</b>							
Operating Revenues	1,467,184	1,229,708	2,650,924	2,672,410	237,476	(1,183,740)	(1,205,226)
Operating (Expenses)	(1,899,474)	(1,872,693)	(1,871,840)	(1,629,015)	(26,781)	(27,634)	(270,459)
Operating Income	(432,290)	(642,985)	779,084	1,043,395	210,695	(1,211,374)	(1,475,685)
Non-Operating Revenues (Expenses)	317,996	(1,174,984)	(283,834)	(441,165)	1,492,980	601,830	759,161
Income Before Interest Expense	(114,294)	(1,817,969)	495,250	602,230	1,703,675	(609,544)	(716,524)
Interest Income	18,499	37,335	25,167	316	(18,836)	(6,668)	18,183
Interest Expense	(1,262,941)	(1,262,941)	(1,371,708)	(1,315,458)	-	108,767	52,517
Capital Contributions	-	-	-	-	-	-	-
<b>NET INCOME</b>	<b>(1,358,736)</b>	<b>(3,043,575)</b>	<b>(851,291)</b>	<b>(712,912)</b>	<b>1,684,839</b>	<b>(507,445)</b>	<b>(645,824)</b>

Net income was negative but was significantly better than forecast. This was driven by higher operating revenues along with higher reimbursement revenues and lower expensed capex. Operating revenues were up to forecast by \$237k with water up by \$118k and Wastewater up by \$119k. The water surplus was mostly in the residential/commercial area while wastewater was up on higher municipal charges along with higher residential & commercial charges. Operating expenses were up by only \$27k due to higher services spending being mostly offset by lower materials & equipment spending. Non-operating revenues were up on higher project reimbursement while non-operating expenses were down on lower expensed capex. Interest income was down on lower available balances to invest.

MONTH - CITY DIVISION	JULY 2017						
	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
<b>Cash Flow Statement (Indirect)</b>							
Net Income	(1,358,736)	(3,043,575)	(851,291)	(712,912)	1,684,839	(507,445)	(645,824)
Add: Depreciation & Amortization	450,000	450,000	466,667	450,000	-	(16,667)	-
Add: Non-Cash Interest Expense	1,262,941	1,262,941	1,371,708	1,315,458	-	(108,767)	(52,517)
Add: Capex Charged to Expense	138,058	1,213,324	658,667	332,788	(1,075,266)	(520,609)	(194,730)
Principal Payments	-	-	-	-	-	-	-
Cash Outlays on Lease & Lease Reserve	-	-	-	-	-	-	-
Investments Converting To Cash	-	-	-	-	-	-	-
New Borrowing	-	-	-	-	-	-	-
Capital Expenditures	(778,638)	(1,337,191)	(889,214)	(2,849,255)	558,553	110,576	2,070,617
<b>NET FUND CASH FLOWS</b>	<b>(286,375)</b>	<b>(1,454,501)</b>	<b>756,537</b>	<b>(1,463,921)</b>	<b>1,168,126</b>	<b>(1,042,912)</b>	<b>1,177,546</b>

Cash flow was negative but was significantly better than forecast due to higher income from operations along with lower capital spending. The favorable effect of net income described above was aided by lower capex spending.

## B. YTD

YTD - CITY DIVISION	JULY 2017						
Income Statement	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Operating Revenues	18,845,432	18,607,956	17,692,345	17,523,694	237,476	1,153,087	1,321,738
Operating (Expenses)	(12,511,096)	(12,484,315)	(13,102,880)	(11,580,723)	(26,781)	591,784	(930,373)
Operating Income	6,334,336	6,123,641	4,589,465	5,942,971	210,695	1,744,871	391,365
Non-Operating Revenues (Expenses)	(131,899)	(1,624,879)	(1,986,838)	(2,091,110)	1,492,980	1,854,939	1,959,211
Income Before Interest Expense	6,202,437	4,498,762	2,602,627	3,851,862	1,703,675	3,599,810	2,350,575
Interest Income	242,509	261,346	176,169	203,380	(18,836)	66,340	39,129
Interest Expense	(8,840,587)	(8,840,587)	(9,601,956)	(9,208,206)	-	761,369	367,619
Capital Contributions	-	-	-	-	-	-	-
NET INCOME	(2,395,641)	(4,080,479)	(6,823,160)	(5,152,964)	1,684,839	4,427,519	2,757,324

YTD net income is negative but is better than both forecast and budget. In both cases primary driver is higher operating revenues higher reimbursement revenues and lower expensed capex.

Compared to budget, operating revenues are up by \$1.1m with water up by \$879k and wastewater up by \$274k with the primary driver being residential/commercial area for both segments. Operating expenses are favorable by \$592k on lower materials & supplies and on purchased services. Non-operating revenues are a little lower than budget and project reimbursement is lower by \$1.7m, but this has been more than made up by lower expensed capital of \$3.7m as a result of lagging capital spending.

YTD - CITY DIVISION	JULY 2017						
Cash Flow Statement (Indirect)	Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PY Var
Net Income	(2,395,641)	(4,080,479)	(6,823,160)	(5,152,964)	1,684,839	4,427,519	2,757,324
Add: Depreciation & Amortization	3,150,000	3,150,000	3,266,669	3,150,000	-	(116,669)	-
Add: Non-Cash Interest Expense	2,316,726	2,316,726	3,078,095	9,208,206	-	(761,369)	(6,891,480)
Add: Capex Charged to Expense	818,001	1,893,267	4,610,669	1,653,000	(1,075,266)	(3,792,668)	(834,999)
Principal Payments	-	-	-	-	-	-	-
Cash Outlays on Lease & Lease Reserve	(252,000)	(252,000)	(256,000)	(250,000)	-	4,000	(2,000)
Investments Converting To Cash	-	-	-	-	-	-	-
New Borrowing	-	-	-	-	-	-	-
Capital Expenditures	(3,101,780)	(3,660,333)	(6,224,498)	(7,039,747)	558,553	3,122,718	3,937,967
NET FUND CASH FLOWS	535,306	(632,819)	(2,348,225)	1,568,494	1,168,126	2,883,531	(1,033,188)

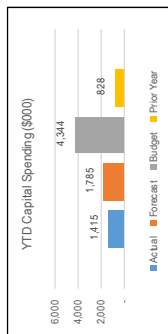
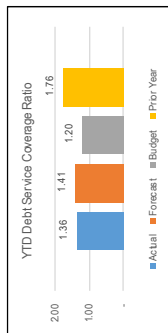
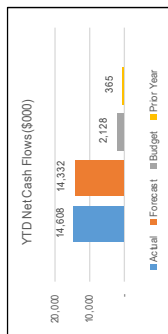
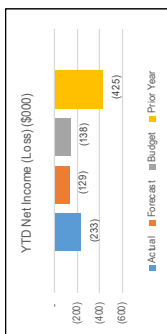
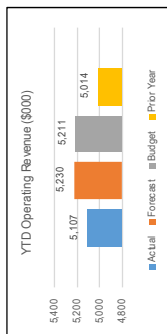
YTD cash flow is positive and is better than both forecast and budget. In both cases, this is due to higher cash from operations and lower capital spending. Capital spending is lower by \$3.1m.

## 5. FULL YEAR FORECAST

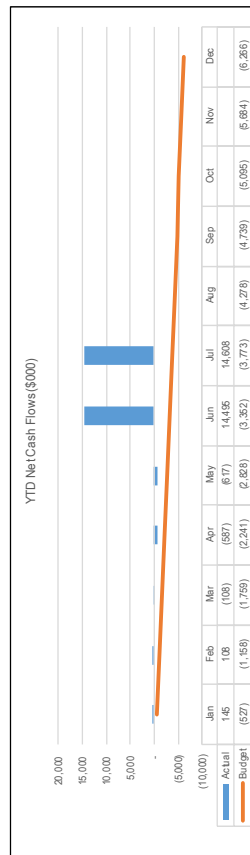
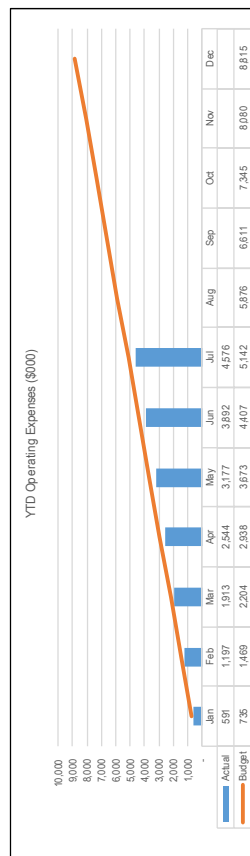
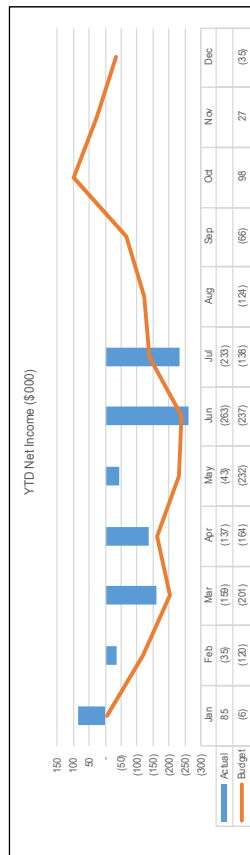
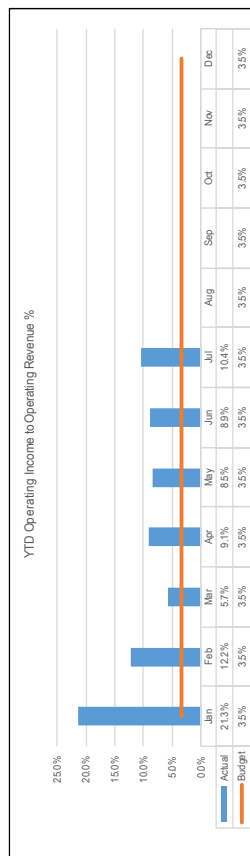
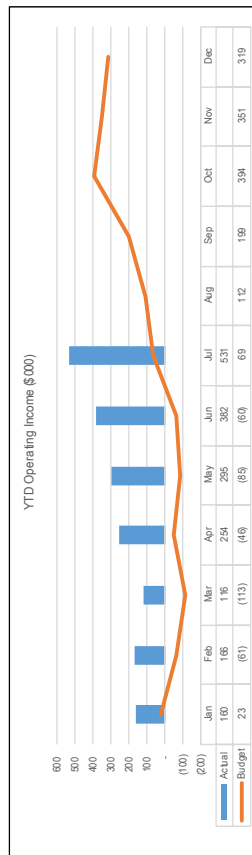
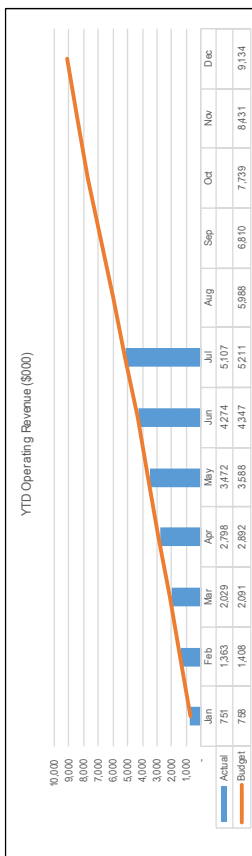
The recently completed Q3 Forecast is in the table below for reference.

				Variance to	
	Forecast	Budget	Last FC	Budget	Last FC
<b>INCOME STATEMENT</b>					
Suburban Water	(21,018)	(34,673)	(240,736)	13,655	219,718
Suburban Wastewater	326,504	(237,977)	(235,352)	564,481	561,856
City Division	(9,623,562)	(10,217,568)	(10,277,443)	594,006	653,881
TOTAL LCA	(9,318,077)	(10,490,218)	(10,753,531)	1,172,141	1,435,454
<b>CASH FLOW STATEMENT</b>					
Suburban Water	13,118,480	(81,469)	8,746,795	13,199,950	4,371,685
Suburban Wastewater	(501,737)	7,121,675	37,287,310	(7,623,412)	(37,789,047)
City Division	(3,705,185)	(4,479,360)	(4,538,598)	774,175	833,413
TOTAL LCA	8,911,558	2,560,846	41,495,507	6,350,712	(32,583,950)
<b>DEBT SERVICE COVERAGE RATIO</b>					
Suburban Water	1.38	1.27	1.20	0.12	0.19
Suburban Wastewater	7.96	2.45	2.52	5.51	5.44
City Division	1.22	1.21	1.18	0.01	0.04

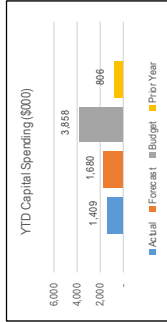
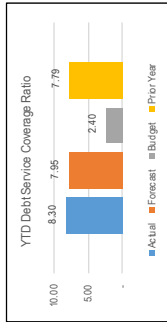
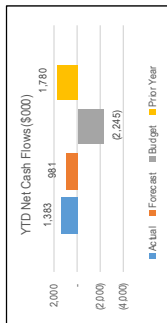
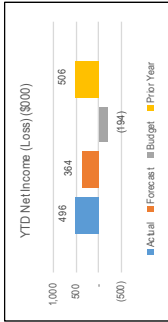
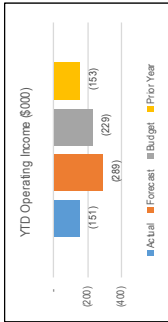
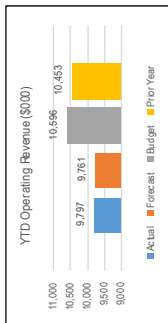
**DASHBOARD - SUBURBAN WATER**  
**JULY 2017**



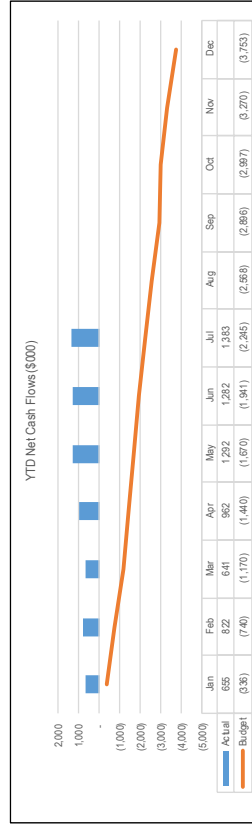
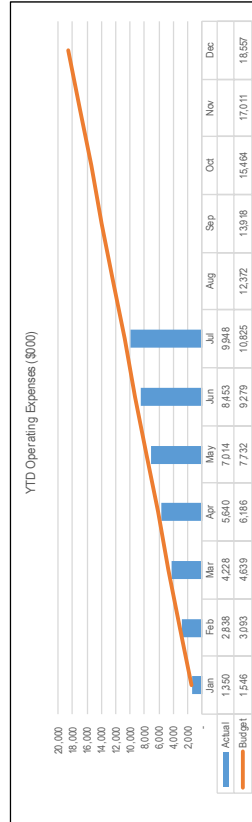
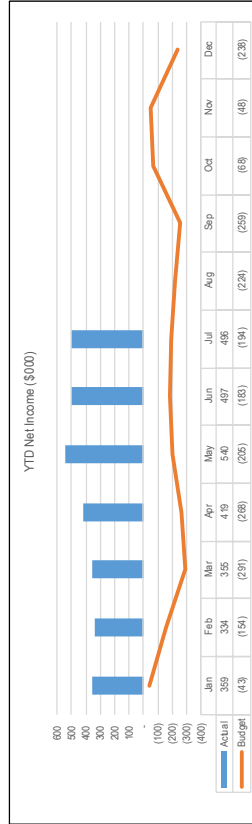
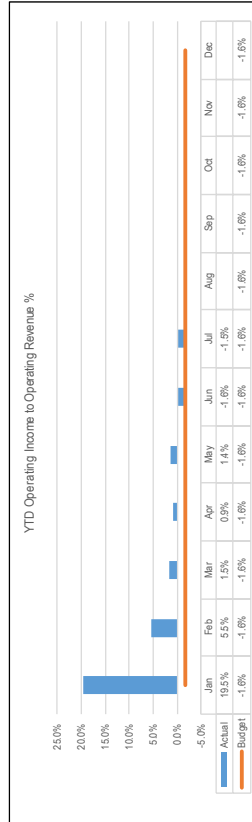
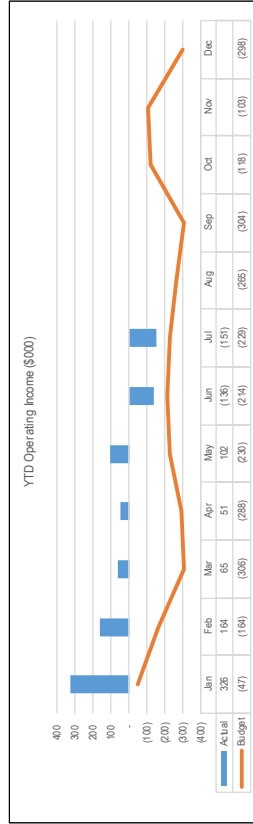
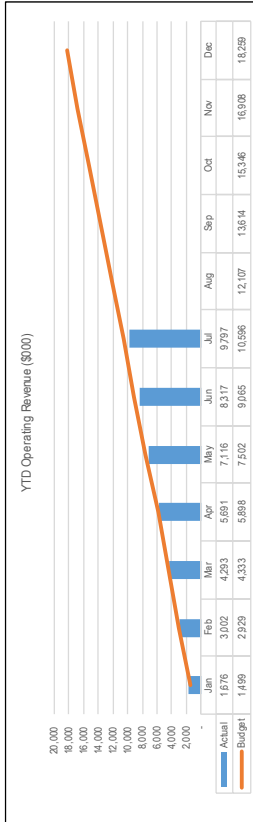
YTD COMPARATIVE (\$'000)	Variance to				
	Actual	Forecast	Budget	Prior Yr	Budget
Operating Revenues	5,407	5,230	5,211	5,014	(104)
Less: Operating Expenses	4,576	4,645	5,142	4,319	69
Operating Income	531	585	69	695	(54)
Other income (expenses)	(764)	(714)	(207)	(1,120)	(50)
Net Income	(233)	(129)	(138)	(425)	(104)
Debt Service Coverage Ratio	1.36	1.41	1.20	1.76	(0.05)
Net Cash Flows	14,608	14,332	2,128	365	276
					12,480
					14,243



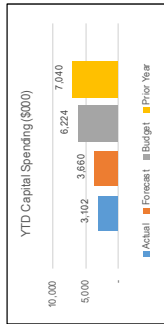
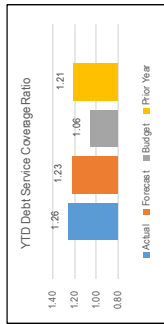
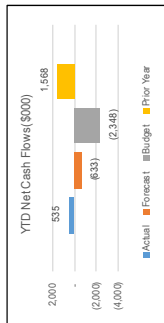
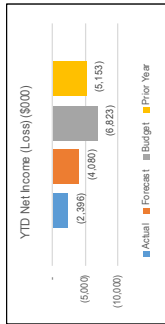
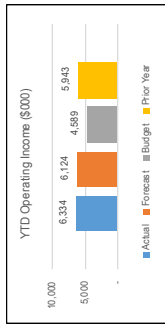
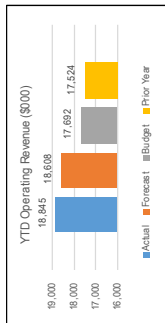
# DASHBOARD - SUBURBAN WASTEWATER JULY 2017



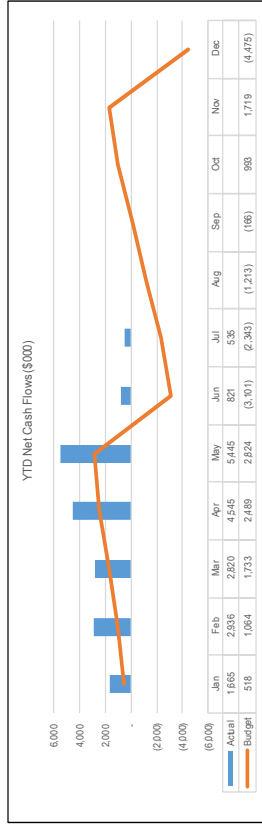
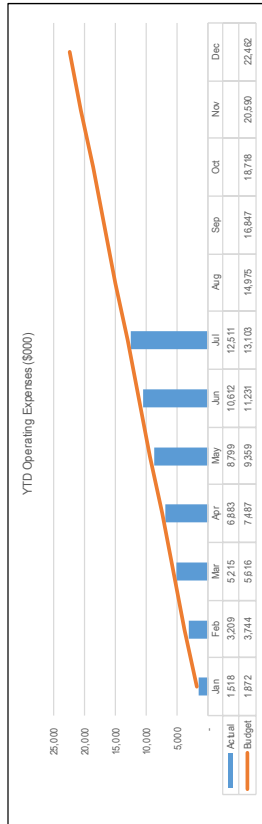
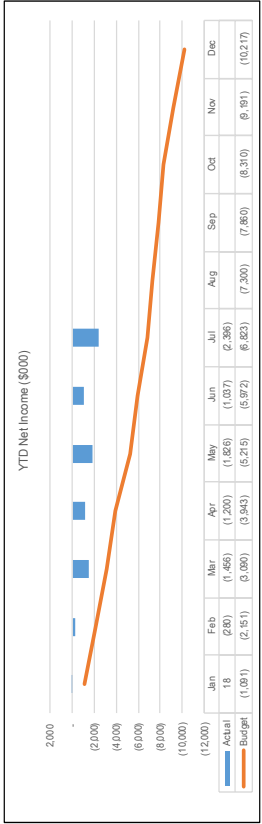
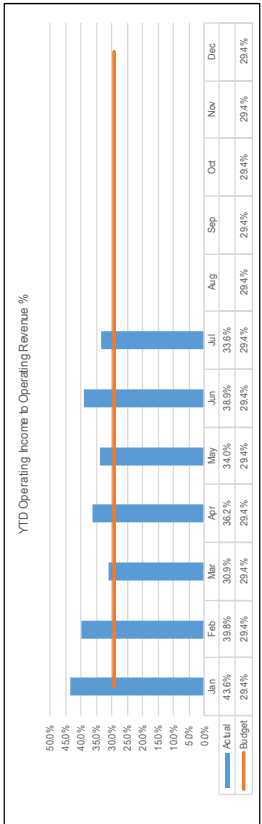
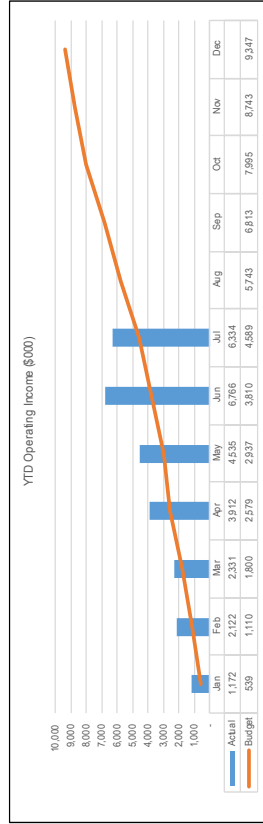
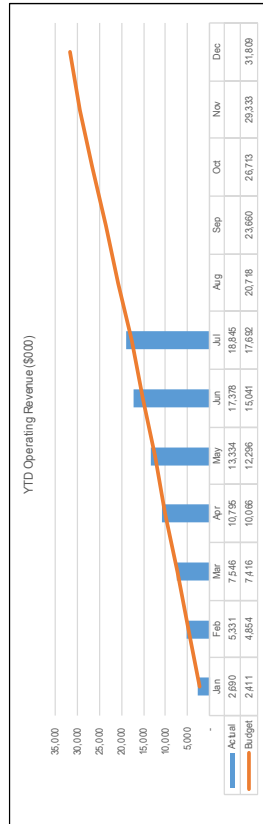
YTD COMPARATIVE (\$000)		Actual		Forecast		Budget		Prior Year		Variance to	
Operating Revenues		9,797	9,761	10,453	36	799	(656)				
Less: Operating Expenses		9,948	10,050	10,606	102	877	658				
Operating Income		(151)	(289)	(153)	138	78	2				
Other Income (expenses)		647	653	35	(6)	612	(12)				
Net Income		496	364	506	132	690	(10)				
Debt Service Coverage Ratio		8.30	7.95	2.40	7.79	0.35	5.90				
Net Cash Flows		1,383	981	2,245	402	3,628	(397)				



# DASHBOARD - CITY DIVISION JULY 2017



	Actual	FC Budget	PY	Variance to
YTD COMPARATIVE (\$'000)				
Operating Revenues	18,845	18,608	17,524	237 1,153 1,321
Less: Operating Expenses	12,511	12,484	11,581	(27) 592 (930)
Operating Income	6,334	6,124	5,943	210 1,745 391
Other income (expenses)	(8,730)	(10,204)	(11,096)	1,474 2,682 2,366
Net Income	(2,396)	(4,080)	(5,153)	1,684 4,427 2,757
Debt Service Coverage	1.26	1.23	1.21	0.03 0.20 0.05
Net Cash Flows	535	(633)	(2,348)	1,568 2,883 (1,033)





Page | 13

Page | 14

LEHIGH COUNTY AUTHORITY																
CITY DIVISION																
MONTHLY FINANCIAL STATEMENTS																
MONTH - CITY DIVISION																
Income Statement																
Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PV Var	YTD - CITY DIVISION									
1,467,184	1,229,708	2,650,924	2,672,410	237,476	(1,183,740)	(1,206,226)	Operating Revenues	18,845,432	18,607,956	17,692,345	17,523,694	237,476	1,153,087	1,321,738	PV Var	
(1,899,474)	(1,872,693)	(1,871,840)	(1,629,015)	(26,781)	(27,634)	(270,459)	Operating (Expenses)	(12,511,096)	(12,484,315)	(13,102,880)	(11,580,723)	(26,781)	591,784	(930,373)		
(432,290)	(642,985)	779,084	1,043,395	210,695	(1,211,374)	(1,475,685)	Operating Income	6,334,336	6,123,641	4,589,465	5,942,971	210,695	1,744,871	391,365		
317,996	(1,174,984)	(283,834)	(441,165)	1,492,980	601,830	759,161	Non-Operating Revenues (Expenses)	(131,899)	(1,624,879)	(1,986,838)	(2,091,110)	1,492,980	1,854,939	1,959,211		
(114,294)	(1,817,969)	495,250	602,230	1,703,675	(609,544)	(716,524)	Income Before Interest Expense	6,202,437	4,498,762	2,602,627	3,851,862	1,703,675	3,599,810	2,350,575		
18,499	37,335	25,167	316	(18,836)	(6,668)	18,183	Interest Income	242,509	261,346	176,169	203,380	(18,836)	66,340	39,129		
(1,262,941)	(1,262,941)	(1,371,708)	(1,315,458)	-	108,767	52,517	Interest Expense	(8,840,587)	(8,840,587)	(9,601,956)	(9,208,206)	-	761,369	367,619		
-	-	-	-	-	-	-	Capital Contributions	-	-	-	-	-	-	-		
(1,358,736)	(3,043,575)	(851,291)	(712,912)	1,684,839	(507,445)	(646,824)	NET INCOME	(2,395,641)	(4,080,479)	(6,823,160)	(5,152,964)	1,684,839	4,427,519	2,757,324		
MONTH - CITY DIVISION																
Cash Flow Statement (Indirect)																
Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PV Var	YTD - CITY DIVISION									
(1,358,736)	(3,043,575)	(851,291)	(712,912)	1,684,839	(507,445)	(646,824)	Net Income	(2,395,641)	(4,080,479)	(6,823,160)	(5,152,964)	1,684,839	4,427,519	2,757,324		
450,000	450,000	466,667	450,000	-	(16,667)	-	Add: Depreciation & Amortization	3,150,000	3,150,000	3,266,669	3,150,000	-	(116,669)	-		
1,262,941	1,262,941	1,371,708	1,315,458	-	(108,767)	(52,517)	Add: Non-Cash Interest Expense	2,316,726	2,316,726	3,078,095	9,208,206	-	(761,369)	(6,891,480)		
138,058	1,213,324	658,667	332,788	(1,075,266)	(520,609)	(194,730)	Add: Capex Charged to Expense	818,001	1,893,267	4,610,669	1,653,000	(1,075,266)	(3,792,668)	(834,999)		
-	-	-	-	-	-	-	Principal Payments	(252,000)	(252,000)	(256,000)	(250,000)	-	4,000	(2,000)		
-	-	-	-	-	-	-	Cash Outlays on Lease & Lease Reserve	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	Investments Converting To Cash	-	-	-	-	-	-	-		
(778,638)	(1,337,191)	(889,214)	(2,849,255)	558,553	110,576	2,070,617	New Borrowing	(3,101,780)	(3,660,333)	(6,224,498)	(7,039,747)	558,553	3,122,718	3,937,967		
(286,375)	(1,454,501)	756,537	(1,463,921)	1,168,126	(1,042,912)	1,177,546	Capital Expenditures	535,306	(632,819)	(2,346,225)	1,568,494	1,168,126	2,883,531	(1,033,188)		
MONTH - CITY DIVISION																
Cash Flow Statement (Direct)																
Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PV Var	YTD - CITY DIVISION									
1,467,184	1,229,708	2,650,924	2,672,410	237,476	(1,183,740)	(1,206,226)	Operating Revenues	18,845,432	18,607,956	17,692,345	17,523,694	237,476	1,153,087	1,321,738	PV Var	
(1,449,474)	(1,422,693)	(1,405,173)	(1,179,015)	(26,781)	(44,301)	(270,459)	Operating Expenses (Ex Depreciation)	(9,361,096)	(9,334,315)	(9,836,211)	(8,430,723)	(26,781)	475,115	(930,373)		
18,499	37,335	25,167	316	(18,836)	(6,668)	18,183	Interest Income	242,509	261,346	176,169	203,380	(18,836)	66,340	39,129		
36,209	(155,650)	1,270,918	1,493,710	191,859	(1,234,709)	(1,457,502)	Cash Available For Debt Service	9,726,846	9,534,987	8,032,303	9,296,352	191,859	1,694,543	430,494		
-	-	-	-	-	-	-	Interest Payments	(6,523,861)	(6,523,861)	(6,523,861)	-	-	-	(6,523,861)		
-	-	-	-	-	-	-	Principal Payments	-	-	-	-	-	-	-		
36,209	(155,650)	1,270,918	1,493,710	191,859	(1,234,709)	(1,457,502)	Net Cash Available For Debt Service	3,202,985	3,011,126	1,508,442	9,296,352	191,859	1,694,543	(6,093,367)		
317,996	(1,174,984)	(283,834)	(441,165)	1,492,980	601,830	759,161	Non-Operating Revenues (Expenses)	(131,899)	(1,624,879)	(1,986,838)	(2,091,110)	1,492,980	1,854,939	1,959,211		
138,058	1,213,324	658,667	332,788	(1,075,266)	(520,609)	(194,730)	Add: Capex Charged to Expense	818,001	1,893,267	4,610,669	1,653,000	(1,075,266)	(3,792,668)	(834,999)		
(435,138)	(20,599)	(327,750)	-	(414,539)	(107,388)	(435,138)	Less: Project Reimbursement	(558,736)	(144,197)	(2,294,250)	-	(414,539)	1,735,514	(558,736)		
-	-	-	-	-	-	-	Cash Outlays on Lease & Lease Reserve	(252,000)	(252,000)	(256,000)	(250,000)	-	4,000	(2,000)		
-	-	-	-	-	-	-	Non-Cash Working Capital Changes	-	-	-	-	-	-	-		
57,125	(137,909)	1,318,001	1,385,333	195,034	(1,260,876)	(1,328,209)	Net Cash Available For Capital	3,078,351	2,883,317	1,582,023	8,608,242	195,034	1,496,328	(5,529,891)		
435,138	20,599	327,750	-	414,539	107,388	435,138	Project Reimbursement	558,736	144,197	2,294,250	-	414,539	(1,735,514)	558,736		
-	-	-	-	-	-	-	Capital Contributions	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	Investments Converting To Cash	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	New Borrowing	-	-	-	-	-	-	-		
(778,638)	(1,337,191)	(889,214)	(2,849,255)	558,553	110,576	2,070,617	Capital Expenditures	(3,101,780)	(3,660,333)	(6,224,498)	(7,039,747)	558,553	3,122,718	3,937,967		
(286,375)	(1,454,501)	756,537	(1,463,921)	1,168,126	(1,042,912)	1,177,546	NET FUND CASH FLOWS	535,306	(632,819)	(2,346,225)	1,568,494	1,168,126	2,883,531	(1,033,188)		
MONTH - CITY DIVISION																
Cash Flow Statement (Direct)																
Actual	Forecast	Budget	Prior Year	FC Var	Bud Var	PV Var	YTD - CITY DIVISION									
1,467,184	1,229,708	2,650,924	2,672,410	237,476	(1,183,740)	(1,206,226)	Operating Revenues	18,845,432	18,607,956	17,692,345	17,523,694	237,476	1,153,087	1,321,738	PV Var	
(1,449,474)	(1,422,693)	(1,405,173)	(1,179,015)	(26,781)	(44,301)	(270,459)	Operating Expenses (Ex Depreciation)	(9,361,096)	(9,334,315)	(9,836,211)	(8,430,723)	(26,781)	475,115	(930,373)		
18,499	37,335	25,167	316	(18,836)	(6,668)	18,183	Interest Income	242,509	261,346	176,169	203,380	(18,836)	66,340	39,129		
36,209	(155,650)	1,270,918	1,493,710	191,859	(1,234,709)	(1,457,502)	Cash Available For Debt Service	9,726,846	9,534,987	8,032,303	9,296,352	191,859	1,694,543	430,494		
-	-	-	-	-	-	-	Interest Payments	(6,523,861)	(6,523,861)	(6,523,861)	-	-	-	(6,523,861)		
-	-	-	-	-	-	-	Principal Payments	-	-	-	-	-	-	-		
36,209	(155,650)	1,270,918	1,493,710	191,859	(1,234,709)	(1,457,502)	Net Cash Available For Debt Service	3,202,985	3,011,126	1,508,442	9,296,352	191,859	1,694,543	(6,093,367)		
317,996	(1,174,984)	(283,834)	(441,165)	1,492,980	601,830	759,161	Non-Operating Revenues (Expenses)	(131,899)	(1,624,879)	(1,986,838)	(2,091,110)	1,492,980	1,854,939	1,959,211		
138,058	1,213,324	658,667	332,788	(1,075,266)	(520,609)	(194,730)	Add: Capex Charged to Expense	818,001	1,893,267	4,610,669	1,653,000	(1,075,266)	(3,792,668)	(834,999)		
(435,138)	(20,599)	(327,750)	-	(414,539)	(107,388)	(435,138)	Less: Project Reimbursement	(558,736)	(144,197)	(2,294,250)	-	(414,539)	1,735,514	(558,736)		
-	-	-	-	-	-	-	Cash Outlays on Lease & Lease Reserve	(252,000)	(252,000)	(256,000)	(250,000)	-	4,000	(2,000)		
-	-	-	-	-	-	-	Non-Cash Working Capital Changes	-	-	-	-	-	-	-		
57,125	(137,909)	1,318,001	1,385,333	195,034	(1,260,876)	(1,328,209)	Net Cash Available For Capital	3,078,351	2,883,317	1,582,023	8,608,242	195,034	1,496,328	(5,529,891)		
435,138	20,599	327,750	-	414,539	107,388	435,138	Project Reimbursement	558,736	144,197	2,294,250	-	414,539	(1,735,514)	558,736		
-	-	-	-	-	-	-	Capital Contributions	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	Investments Converting To Cash	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	New Borrowing	-	-	-	-	-	-	-		
(778,638)	(1,337,191)	(889,214)	(2,849,255)	558,553	110,576	2,070,617	Capital Expenditures	(3,101,780)	(3,660,333)	(6,224,498)	(7,039,747)	558,553	3,122,718	3,937,967		
(286,375)	(1,454,501)	756,537	(1,463,921)	1,168,126	(1,042,912)	1,177,546	NET FUND CASH FLOWS	535,306	(632,819)	(2,346,225)	1,568,494	1,168,126	2,883,531	(1,033,188)		
MONTH - CITY DIVISION																
DEBT SERVICE COVERAGE RATIO																
15,125	(179,909)	1,276,001	1,463,581	-	-	-	Net Cash Available For Debt Service	9,560,212	9,365,178	8,067,884	9,232,487	-	-	-		
1,087,310	1,087,310	1,087,310	1,031,060	-	-	-	Debt Service	7,611,170	7,611,170	7,611,170	7,611,170	-	-	-		
0.01	(0.17)	1.17	1.42	-	-	-	DCR	1.26	1.23	1.06	1.21	-	-	-		

Presented: August 28, 2017

<p><b>Significant Repairs:</b></p> <p>KIWWTP Primary Digester #1 cover replacement has only a few small tasks remaining and the project is scheduled for completion by mid September. There was a 16" main break on Hamilton Boulevard (near Air Products) that resulted in the need for emergency repairs by contractors.</p>
<p><b>Description of NOV's and/or SSO's:</b></p> <p>There was (1) SSO in the city resulting from a blockage and (2) bypasses occurred at Heidelberg Heights during heavy rainfall events. There was a sludge release at Sand Springs WWTP and a leachate spill at KIWWTP, both resulting from operator errors. A sludge spill at the PTP occurred as a result of a broken line.</p>
<p><b>Other Highlights:</b></p> <p>In the CLD, the flushing program was halted due to available manpower after 948/1515 (63%) of the hydrants were worked. Flushing will resume in 2018. As of 8/17/2017, the valve and hydrant maintenance program has worked 1,278/1,515 (84%) of the hydrants, generating (739) work orders and (23) high priority work orders for malfunctioning hydrants.</p>