



## BOARD MEETING AGENDA – November 13, 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

- *October 23, 2017 Board meeting minutes*

4. Public Comments

5. Action / Discussion Items:

**FINANCE AND ADMINISTRATION**

- *2018 Water & Wastewater Rate Schedules (blue)*

**WATER**

**WASTEWATER**

- *Suburban Division – Spring Creek Pump Station (green)*
- *Wastewater Rules & Regulations (pink)*
- *USEPA Administrative Order – Update – Discussion Only*
- *Industrial Pretreatment Program Overview – Discussion Only*

6. Monthly Project Updates / Information Items (1<sup>st</sup> Board meeting per month) – **November report attached**

7. Monthly Financial Review (2<sup>nd</sup> Board meeting per month)

8. Monthly System Operations Overview (2<sup>nd</sup> Board meeting per month)

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.*

November 27, 2017

December 11, 2017

January 8, 2018

**PUBLIC PARTICIPATION POLICY**

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

## **REGULAR MEETING MINUTES**

### **October 23, 2017**

---

The Regular Meeting of the Lehigh County Authority was called to order at 12:00 p.m. on Monday, October 23, 2017, Chairman Brian Nagle presiding. Other Members present at the commencement of the meeting were: Linda Rosenfeld, Jeff Morgan, Richard Bohner, Norma Cusick, and Scott Bieber. Authority Staff present were Liesel Gross, Brad Landon, Ed Klein, Pat Mandes, Chuck Volk, Chris Moughan, John Parsons, Susan Sampson, Phil DePoe, Andrew Moore and Lisa Miller.

#### **REVIEW OF AGENDA**

Chairman Nagle announced that there is an article in this month's PMAA magazine "The Authority" regarding Liesel Gross being named Employee of the Year.

Chairman Nagle also 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 the Agenda will be rearranged to discuss the Suburban Water Rate Study first with the rest of the regular Agenda to follow. Ms. Gross also noted there will be an Executive Session at the end of the regular agenda to discuss potential litigation and land acquisition.

#### **APPROVAL OF MINUTES**

##### **October 9, 2017 Regular Meeting Minutes**

On a motion by Richard Bohner, seconded by Norma Cusick, the Board approved the Minutes of the October 9, 2017 meeting (6-0).

#### **PUBLIC COMMENTS**

None.

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

##### **Suburban Water Rate Study**

Liesel Gross introduced Dave Busch, the Authority's rate consultant from Keystone Alliance Consulting, Inc. Mr. Busch reviewed the provided copies of the Lehigh County Authority Cost of Service Study for the Suburban Water – Common Rate Division along with two handouts, Exhibit 15A and Exhibit 15B, and also a PowerPoint presentation. The goal of the study is to develop updated water rates that will generate an appropriate amount of revenue to sustain the Authority's operation and funding requirements and to also generate the appropriate amount of revenue from each customer group so that one customer group is not subsidizing the other, ensuring that all customers are paying for what they use.

Mr. Busch highlighted projected debt service requirements noting they will impact the rates again starting in 2021 when the Authority has projected a need to issue new financing to address future capital improvements. He reviewed additional "what if" scenarios that will be evaluated for the projected rates in 2019 through 2022, and this analysis will include varying levels of pay-as-you-go capital improvements versus additional borrowing.

Kevin Baker arrived at 12:11 p.m.

Mr. Busch stated that as part of this study, the Authority has reviewed the impact of going to monthly billing, and he presented a preliminary review of the monthly rates under current budget figures. With the rate model completed, there are additional analysis options for the Authority to explore and consider for monthly billing as it relates to other "what if" scenarios that will be modeled. The Board had some discussion regarding the financial and customer impacts of monthly billing.

### **2018 Budget**

Ed Klein presented the 2018 Budget along with a PowerPoint presentation. Mr. Klein noted that the 2018 Final Budget documents are similar to the worksheets that have been reviewed previously at prior meetings.

Regarding the Suburban Water Division, Mr. Klein explained the cash available for debt service is only slightly higher than total debt service. Operating expenses will be increasing due to inflation, wages, material and services, and spending increases due to new programs and services being introduced. To meet the debt service requirements, there will be spending reductions in equipment, materials & supplies as well as purchased services. The budget also includes revenue increases to be generated from a combination of growth and rate increases, as discussed in the prior presentation with Mr. Busch.

Scott Bieber commented that he is not comfortable with cutting costs in important areas like equipment and supplies when the rates are so low and could be increased more to allow for proper maintenance. Liesel Gross noted the Authority is cutting costs in certain categories, but the overall operations budget for this division is increasing significantly, having nearly doubled in just three years. She explained that the staff will undertake some additional study to understand why these expenses are increasing and evaluate this prior to increasing rates above what is already projected.

In the Suburban Wastewater Division budget, Ed Klein noted the biggest variance is the additional capital works spending which is due to timing and permitting of projects. All primary performance indicators for this division are positive.

Mr. Klein then presented the City Division budget for 2018, which includes modest increases in revenue due to a 4 percent increase as allowed by the lease with the City of Allentown. He then explained that with the required refinancing of approximately \$19 million of lease bonds with are due in 2018, plus about \$1.7 million in borrowing for capital improvements, the operations budget had to be trimmed significantly in order to meet debt service coverage requirements. The capital improvements budget for 2018, which was also trimmed significantly, is more than \$12 million. Because the Authority's ability to finance the projects will be limited, most of this work will be funded by accumulated cash and reserves. He explained that this action will deplete the City Division reserved to minimum required levels, requiring significant new funding in the future to support future system improvements. Board discussion followed regarding financial sustainability of this system. Liesel Gross explained this issue will be discussed further in the next action item on the meeting agenda.

On a motion by Norma Cusick, seconded by Linda Rosenfeld, the Board approved the 2018 Budget (6-1). Scott Bieber voted no and explained he voted against the budget because he feels the rates are too low, particularly in the Suburban Water Division. Liesel Gross followed up by stating that at the November Board meeting, a complete packet of all rates and rate schedules that are incorporated into the budget will be presented for Board approval.

Chairman Nagle called a break at 1:42 p.m. The meeting reconvened at 1:50 p.m.

### **City Division Financial Condition Assessment & Planning Project**

Liesel Gross gave an overview of the memorandum regarding the City Financial Condition Assessment and Planning Project. The project is intended to be a short-schedule, targeted team approach to developing a long-term financial model for the City Division, and to discover and evaluate alternatives that may be possible to improvement financial performance, as discussed during the budget presentation. Ms. Gross introduced Dave Green, Senior Economist and Senior Financial Consultant from CH2M to share CH2M's expertise in this type of work. Mr. Green reviewed their services and presented a PowerPoint presentation. CH2M will lead the project and facilitate collaboration with several outside consultants on rates, legal, and funding options and issues, as they relate to the lease agreement and financial model development and analyses. Ms. Gross noted that the study is going to mostly use information that we already have, for example, the Water System Master Plan. Once the financial model is developed, the Authority will need to look at some details and alternatives like financing periods for existing lease debt or capital improvements funding alternatives. In response to a question, Mr. Green said that the Authority will have all rights to use the model in the future. Ms. Gross explained the project team and how it will function. She also explained that the short project schedule will result in a series of recommendations to be discussed with the Board in early 2018. If a revised 2018 budget is recommended to incorporate any specific strategies to be developed, a new budget will be developed and presented to the Board at that time.

Liesel Gross requested approval for the Professional Services Authorization in the amount of \$210,000.00 to CH2M.

On a motion by Linda Rosenfeld, seconded by Norma Cusick, the Board approved the Professional Services Authorization in the amount of \$210,000.00 to CH2M (7-0)

### **2018-2022 Capital Plan**

Chuck Volk summarized the changes to date since the plans were initially published in August 2017 and asked for approval of the 2018-2022 Capital Plans. Phil DePoe reviewed the four main changes to the City Division 2018-2022 Capital Plan since its last review on September 25, 2017 highlighting the major changes to the plan that were required in order to meet targets within the 2018 budget, as presented earlier in the meeting. The Board discussed their concerns with cutting back on projects. Liesel Gross stated that the work with CH2M regarding the financial condition assessment and planning includes a review of the Authority's prioritization process for capital improvements to help the staff make these decisions in the future based on a risk-evaluation and business-case analysis.

On a motion by Jeff Morgan, seconded by Norma Cusick, the Board approved the 2018-2022 Capital Plan (7-0).

### **MONTHLY FINANCIAL REVIEW**

The monthly financial review for September 2017 was prepared by Ed Klein and previously emailed to the Board. There were no questions or comments.

### **MONTHLY SYSTEM OPERATIONS OVERVIEW**

John Parsons reviewed the Monthly System Operations Overview report for September 2017. Scott Bieber inquired about the reporting requirements for a Notice of Violation (NOV). Pat Mandes stated that an NOV is issued according to the regulating agency depending on the violation, and the NOV will list the response required by the Authority.

### **STAFF COMMENTS**

Liesel Gross requested cancellation of the October 30<sup>th</sup> Board meeting considering all the actions that were taken at today's meeting. The Board agreed to cancel the meeting.

**SOLICITOR'S COMMENTS**

None.

**PUBLIC COMMENTS / OTHER COMMENTS**

None.

**EXECUTIVE SESSION**

An Executive Session was held at 2:38 p.m. to discuss land acquisition and potential litigation. The Executive Session ended at 3:12 p.m.

On a motion by Norma Cusick, seconded by Kevin Baker, the Board authorized the management staff to enter into negotiations and complete the transaction if the negotiations are successful, including executing documentation, with an owner adjoining the Authority's pretreatment plant to address future infrastructure needs.

**ADJOURNMENT**

There being no further business, the Chairman adjourned the meeting at 3:14 p.m.

---

Richard H. Bohner  
Secretary



## MEMORANDUM

---

**TO:** LCA Board of Directors  
**FROM:** Liesel Gross, CEO  
**DATE:** November 6, 2017  
**RE:** 2018 Water & Sewer Rates

**Attached:** Sample Residential Bill Calculation for Allentown and Suburban Water (historical rates)  
Proposed Water & Sewer Rate Schedules

The 2018 water and sewer rates are presented in the attached schedules for the Board of Director's consideration for adoption on November 13, 2017. They will be posted on the LCA website in advance of their proposed adoption and shared with key customers directly in accordance with any existing service agreements. Should any customer or member of the general public have any questions or comments about these rates prior to their effective date of January 1, 2018, we will bring them back to the Board for consideration and to record them publicly for the record.

To assist the Board and the public with reviewing the proposed rates, a summary of the proposed rate changes is shown on the table below, and all changes are highlighted / shaded grey within the rate schedule documents.

In addition, it is important to note that these rates were discussed, reviewed and preliminarily approved as part of the 2018 budget process that began in August and was concluded in October. This submission represents formal adoption of the rates that were previously discussed, presented and incorporated into the 2018 budget calculations. In other words, there are "no surprises" included in the attached rate schedules.

### Water Rates

---

Rate	Page #	Description / Discussion
Suburban Water Fixed & Volume Charges	1-2	Proposed change in fixed and volume rates were calculated via the water rate study conducted by Keystone Alliance Consulting in 2017 and based on current and projected customer usage and 2018 budget figures. Rates for 2019 through 2022 will be further analyzed and presented to the Board for discussion at a later date. Because the last rate study was completed several years ago (2009-2010), the new rates show some movement toward flattening the volume charges in the declining rate blocks, and increasing the fixed charges to stabilize revenues.
Upper Milford Central & Madison North	2	Rate schedules for these divisions will be deleted as the customers will transition to the common water rate schedule. This was studied and incorporated into the rate study described above.
Public Fire Protection	3	Fire hydrant and system charges for public fire service provided by the Authority were evaluated as part of the water rate study described above.

Rate	Page #	Description / Discussion
Allentown Water Rates	10	The 2018 rates reflect increases based on the terms of the Concession Agreement with the City of Allentown. Such increases include an overall 4% increase in general rates, plus an updated calculation of the Capital Cost Recovery Charge per the methodology included in the agreement.

### Wastewater Rates

---

Rate	Page #	Description / Discussion
Suburban Exceptional Strength Charge	5	As calculated in the Western Lehigh Interceptor User Charge Report that was submitted to municipal signatories in October 2017. Rates are calculated by formula in compliance with municipal agreements.
Western Lehigh Interceptor & Little Lehigh Relief Interceptor User Charges	7	As calculated in the Western Lehigh Interceptor User Charge Report that was submitted to municipal signatories in October 2017. Rates are calculated by formula in compliance with municipal agreements.
Allentown Sewer Rates	9	The 2018 rates reflect increases based on the terms of the Concession Agreement with the City of Allentown. Such increases include an overall 4% increase in general rates, plus an updated calculation of the Capital Cost Recovery Charge and Administrative Order Fee per the methodology included in the agreement.
Allentown Exceptional Strength Charge	10	As calculated by formula and applied to the City's municipal signatories and in-City customers with high-strength waste discharges.
Allentown Industrial Pretreatment Charges	10	Two additional fees added to this menu of fees that may apply to individual customers depending on permit parameters.

### 2018 Rates "To be determined / submitted separately"

---

Throughout both the water and wastewater rate schedules, several items are marked with a notation that the 2018 rate is "to be determined / submitted separately" at a later date. These rates all fall in the category of tapping fees or customer facilities fees that impact future customers and must be calculated in accordance with current legislation for such fees and adopted by formal Resolution of the Board. Therefore, these rates will be submitted separately by the end of the year with the appropriate Resolution and supporting documentation as required by law.

### LCA Rate Approval Process

---

Developing the 2018 rate schedules has been an iterative process that was discussed by the LCA Board of Directors several times over the past three months as the 2018 budget was developed and approved. With this submission, LCA seeks to formally codify these rates into our published rate schedule. Approval of the rate schedules is requested at the November 13, 2017 Board meeting to allow for adequate time to notify customers of the final adopted rates that will be reflected on their water/sewer bills in 2018.

## Lehigh County Authority - City Division - Preliminary 2018 Rates

**Bill Sample: Average Residential Customer, 15,000 gallons per quarter**

	<b>Annual Rate Adjustment</b>			
Index Change (CPI-U through June 30)	n/a	0.0%	0.8%	1.5%
Margin Change (2.5% through 2032; 2.0% thereafter)	n/a	2.5%	2.5%	2.5%
<b>Total Rate Adjustment per Lease Agreement</b>	<b>0.0%</b>	<b>2.5%</b>	<b>3.3%</b>	<b>4.0%</b>

	<b>2013-2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Water Fixed Charge	\$25.21	\$25.84	\$26.78	\$27.85
Water Volume Charge	\$46.52	\$48.37	\$50.65	\$54.58
Sewer Fixed Charge	\$8.75	\$8.97	\$9.29	\$9.66
Sewer Flow Charge	\$33.56	\$34.74	\$36.29	\$37.70
<b>Quarterly Bill</b>	<b>\$114.04</b>	<b>\$117.91</b>	<b>\$123.01</b>	<b>\$129.79</b>
<b>Annual Cost</b>	<b>\$456.15</b>	<b>\$471.65</b>	<b>\$492.04</b>	<b>\$519.16</b>
Total Annual Cost Increase (\$)		\$15.50	\$20.39	\$27.12
Total Cost Increase (%)		3.4%	4.3%	5.5%
<b>Water Volume Charge per 1000 Gallons</b>	<b>\$ 3.10</b>	<b>\$ 3.23</b>	<b>\$ 3.38</b>	<b>\$ 3.64</b>
<b>Sewer Flow Charge per 1000 Gallons</b>	<b>\$ 2.24</b>	<b>\$ 2.32</b>	<b>\$ 2.42</b>	<b>\$ 2.51</b>

Note: This calculation reflects rates that are applied to LCA revenues. The Capital Cost Recovery Charges (CCRC) is applied as a reimbursement of "Major Capital Improvement" expenses. Administrative Order fees are not considered to be LCA revenue as they are a direct reimbursement to the City of Allentown.



# **Lehigh County Authority - Suburban Water Division - Preliminary 2018 Rates**

**Bill Sample: Average Residential Customer, 15,000 gallons per quarter**

	<u>2000</u>	<u>2001</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2017</u>	<u>2018</u>
Water Fixed Charge	\$11.70	\$11.70	\$11.70	\$11.70	\$11.70	\$11.70	\$12.78
Water Volume Charge	\$26.55	\$28.80	\$31.05	\$32.55	\$33.75	\$35.85	\$36.45
Quarterly Bill	\$38.25	\$40.50	\$42.75	\$44.25	\$45.45	\$47.55	\$49.23
<b>Annual Cost</b>	<b>\$153.00</b>	<b>\$162.00</b>	<b>\$171.00</b>	<b>\$177.00</b>	<b>\$181.80</b>	<b>\$190.20</b>	<b>\$196.92</b>
Total Annual Cost Increase (\$)		\$9.00	\$9.00	\$6.00	\$4.80	\$8.40	\$6.72
Total Cost Increase (%)		5.9%	5.6%	3.5%	2.7%	4.6%	3.5%
<b>Water Volume Charge per 1000 Gallons</b>	<b>\$ 1.77</b>	<b>\$ 1.92</b>	<b>\$ 2.07</b>	<b>\$ 2.17</b>	<b>\$ 2.25</b>	<b>\$ 2.39</b>	<b>\$ 2.43</b>

**LEHIGH COUNTY AUTHORITY  
SCHEDULE OF WATER RATES AND CHARGES**

**CENTRAL LEHIGH, NORTH WHITEHALL, WASHINGTON TOWNSHIP,  
HEIDELBERG HEIGHTS, ARCADIA, PINE LAKES, MILL CREEK, BEVERLY HILLS,  
CLEARVIEW FARM ESTATES, UPPER MILFORD CENTRAL, EMMAUS CONSECUTIVE,  
AND MADISON PARK NORTH DIVISIONS**

**I. Schedule of Water Rates**

**A. Metered Water Use**

**Central Lehigh, North Whitehall, Washington Township, Heidelberg Heights,  
Arcadia, Pine Lakes, Mill Creek, Beverly Hills, Emmaus Consecutive,  
Madison Park North, Upper Milford Central & Clearview Farm Estates  
Divisions**

(adopted 11/13/17; effective 1/1/18)

<b>Current Fixed Charges</b>	
<b>Meter Size</b>	<b>Fixed Charge</b>
<i>Quarterly</i>	
5/8" & 3/4" *	\$ 11.70
1"	21.60
<i>Monthly</i>	
1-1/2"	14.10
2"	21.00
3"	43.80
4"	64.20
6"	120.30
8"	186.90
10"	263.10

<b>2018 Fixed Charges</b>	
<b>Meter Size</b>	<b>Fixed Charge</b>
<i>Quarterly</i>	
5/8" & 3/4" *	\$ 12.78
1"	21.93
<i>Monthly</i>	
1-1/2"	16.85
2"	22.95
3"	43.80
4"	64.20
6"	120.30
8"	186.90
10"	263.10

\*Typical residential.

**LEHIGH COUNTY AUTHORITY  
SCHEDULE OF WATER RATES AND CHARGES (cont'd)**

Current Volume Charges		
Quarterly Usage (gal.)	Monthly Usage (gal.)	Rate per 1,000 Gal.
First 120,000	First 0 - 40,000	\$2.39
Next 2,880,000	Next 960,000	\$2.19
Next 24,000,000	Next 8,000,000	\$1.79
Next 147,000,000	Next 49,000,000	\$1.51
Over 174,000,000	Over 58,000,000	\$1.26

2018 Volume Charges		
Quarterly Usage (gal.)	Monthly Usage (gal.)	Rate per 1,000 Gal.
First 120,000	First 0 - 40,000	\$2.43
Next 2,880,000	Next 960,000	\$2.21
Next 24,000,000	Next 8,000,000	\$1.87
Next 147,000,000	Next 49,000,000	\$1.65
Over 174,000,000	Over 58,000,000	\$1.53

**Welshtown Road (Washington Township Division)**

(adopted 9/19/95; effective 10/1/95)

Volume	Rate per 1,000 Gal.
First 8,000 gal./qtr.	*Minimum Charge/Quarter
All over 8,000 gal./qtr.	\$ 5.50
Meter Size	*Minimum Charge/Quarter
5/8" & 3/4"	\$ 60.00
1"	72.00
1-1/4"	84.00
1-1/2"	108.00
2"	133.00
3"	169.00
4"	266.00
6"	459.00

**Upper Milford Central Division**

(deleted 1/1/18)

Fixed Charge
Quarterly—All Meter Sizes \$21.00

Volume	Rate per 1,000 Gallons
All Volume	\$ 5.47

**Madison Park North Division**

(deleted 1/1/18)

Fixed Charge
Quarterly—(5/8" & 3/4" meter) \$11.70

Volume	Rate per 1,000 Gallons
All Volume	\$ 7.50

**LEHIGH COUNTY AUTHORITY  
SCHEDULE OF WATER RATES AND CHARGES (cont'd)**

**B. Public Fire Protection**

(adopted 11/13/17; effective 1/1/18)

Each Public Fire Hydrant (O&M Charge)	\$7.87/month
Each Inch-Squared Foot (System Charge)	\$0.00152/year

<b>2018 Rates:</b>
\$8.24/month
\$0.00132/year

**C. Private Fire Protection**

(adopted 7/12/10; effective 7/12/10)

Fire Line Size	Charge per Month
Single Family Residential	\$ 5.00
2"	13.61
2-1/2"	21.26
3"	30.62
4"	54.43
6"	122.47
8"	217.72
10"	340.18
12"	489.87

**Arcadia West Division – Direct Fire Protection Service**

(adopted 5/12/03; effective 5/12/03)

	Charge per Sq. Ft. of Building Space
Monthly	\$.00321
Quarterly	.00963

**II. Meter Test Fee**

(adopted 12/15/14; effective 1/1/15)

Meter Size	Fee
5/8", 3/4", 1"	\$50.00
Larger than 1"	Actual Cost if >\$50

**III. Meter Inspection Fee**

(adopted 12/15/14; effective 1/1/15)

**\$50.00**

**IV. Service Order / Site Visit Fees**

(adopted 12/15/14; effective 1/1/15)

Business Hours – 7:00 a.m. and 4:45 p.m., Monday through Friday (except holidays)	<b>\$50.00</b>
After Hours	<b>\$150.00</b>
Service Termination & Restoration Charge	<b>\$100.00</b>

**V. Site Revisitation Charge**

(adopted 12/15/14; effective 1/1/15)

**\$100.00**

**LEHIGH COUNTY AUTHORITY**  
**SCHEDULE OF WATER RATES AND CHARGES (cont'd)**

---

<b>VI. <u>Lien Administration Fee</u></b>	(adopted 12/13/04; effective 01/1/05)	
	<b>\$56.50 + Current Lehigh County Clerk of Court's Filing Fee</b>	
<b>VII. <u>Hydrant Security Device Fee</u></b>	<b><u>Central Lehigh Division</u></b>	<b>\$140.00</b>
	(adopted 11/28/16; effective 1/1/17)	
<b>VIII. <u>Fire Flow Test Charge</u></b>	(adopted 12/07/11; effective 01/01/12)	<b>\$180.00</b>
<b>IX. <u>Use of Easement Preparation Fee</u></b>	(adopted 12/07/11; effective 01/01/12)	<b>\$90.00</b>
<b>X. <u>Backflow Prevention Non-compliance Charge</u></b>	(adopted 12/07/11; effective 01/01/12)	<b>\$50.00</b>

**LEHIGH COUNTY AUTHORITY**  
**SCHEDULE OF WATER RATES AND CHARGES (cont'd)**

**IX. Tapping, Connection and Customer Facilities Fees**

**Central Lehigh Division**

(adopted 8/27/12; effective 10/1/12)

Size of Service Line	Tapping Fee			Connection Fee	Customer Facilities Fee
	Distribution		Capacity		
	Type 1	Type 2			
MFR*	\$ 1,150	\$ 150	\$ 340	*	*
3/4"	1,880	300	605	*	*
1"	3,000	480	1,085	*	*
1-1/2"	4,350	705	2,420	*	*
2"	6,350	1,035	4,280	*	*
3"	10,190	1,690	9,675	*	*
4"	13,940	2,350	17,165	*	*
6"	20,050	3,520	38,695	*	*
8"	26,000	4,750	68,805	*	*
10"	30,700	5,865	107,500	*	*
12"	35,600	N/A	154,790	*	*

(\* See Notes on page 8) N/A – Not Available

**Washington Township Division – Excluding Welshtown Road**

(adopted 8/27/12; effective 10/1/12)

Size of Service Line	Tapping Fee		Connection Fees	Customer Facilities Fees
	Distribution	Capacity		
MFR*	\$ 855	\$ 430	*	*
3/4"	1,550	1,000	*	*
1"	2,400	1,800	*	*
1-1/2"	3,470	4,000	*	*
2"	5,100	7,100	*	*
3"	8,320	16,000	*	*
4"	11,580	28,400	*	*
6"	17,350	64,000	*	*
8"	23,420	113,800	*	*
10"	28,930	177,800	*	*
12"	35,075	256,000	*	*

(\* See Notes on page 8) N/A – Not Available

**Central Lehigh Division – Lehigh Valley South Industrial Park**

(adopted 07/25/05; effective 07/1/11)

Special Tapping Fee - \$2,095.37 per equivalent dwelling unit (EDU)

EDU = 220 gallons per day

*Central Lehigh Division fees also apply*

**LEHIGH COUNTY AUTHORITY**  
**SCHEDULE OF WATER RATES AND CHARGES (cont'd)**

**IX. Tapping, Connection and Customer Facilities Fees (cont'd)**

**North Whitehall Township Division**

(adopted 8/27/12; effective 10/1/12)

Size of Service Line	Tapping Fee			Connection Fee	Customer Facilities Fee
	Distribution		Capacity		
	Type 1	Type 2			
MFR*	\$ 1,030	N/A	\$ 295	*	*
3/4"	2,000	N/A	575	*	*
1"	3,200	N/A	1,035	*	*
1-1/2"	4,700	N/A	2,300	*	*
2"	6,900	N/A	4,080	*	*
3"	11,250	N/A	9,200	*	*
4"	15,650	N/A	16,330	*	*
6"	23,450	N/A	36,800	*	*
8"	31,650	N/A	65,435	*	*
10"	39,100	N/A	102,235	*	*
12"	47,400	N/A	147,200	*	*

(\* See Notes on page 8) N/A - Not Available (Type 2 Fee has not been established)

**Arcadia Division**

(adopted 8/27/12; effective 10/1/12)

Tapping Fee		
Part	Amount	Units
Capacity	\$ 1.55	Per Gallon per day
Distribution	0.67	Per Gallon per day
Special Purpose		
Fire Service	0.12	Per Square Foot of Building Space

**Mill Creek Division**

(adopted 8/27/12; effective 10/1/12)

Size of Service Line	Tapping Fee			Connection Fee	Customer Facilities Fee
	Distribution		Capacity		
	Type 1	Type 2			
MFR*	\$ 1,130	N/A	\$ 109	*	*
3/4"	2,000	N/A	192	*	*
1"	2,360	N/A	N/A	*	*
1-1/2"	3,470	N/A	N/A	*	*
2"	5,100	N/A	N/A	*	*
3"	8,320	N/A	N/A	*	*
4"	11,580	N/A	N/A	*	*
6"	17,350	N/A	N/A	*	*
8"	23,420	N/A	N/A	*	*
10"	28,930	N/A	N/A	*	*
12"	35,075	N/A	N/A	*	*

(\* See Notes on page 8) N/A - Not Available (Type 2 Fee has not been established)

**LEHIGH COUNTY AUTHORITY**  
**SCHEDULE OF WATER RATES AND CHARGES (cont'd)**

**IX. Tapping, Connection and Customer Facilities Fees (cont'd)**

**Pine Lakes Division**

(adopted 8/27/12; effective 10/1/12)

Size of Service Line	Tapping Fee			Connection Fee	Customer Facilities Fee
	Distribution		Capacity		
	Type 1	Type 2			
MFR*	\$ 1,130	N/A	\$ 109	*	*
3/4"	2,000	N/A	192	*	*
1"	2,360	N/A	N/A	*	*
1-1/2"	3,470	N/A	N/A	*	*
2"	5,100	N/A	N/A	*	*
3"	8,320	N/A	N/A	*	*
4"	11,580	N/A	N/A	*	*
6"	17,350	N/A	N/A	*	*
8"	23,420	N/A	N/A	*	*
10"	28,930	N/A	N/A	*	*
12"	35,075	N/A	N/A	*	*

(\* See Notes on page 8) N/A - Not Available (Type 2 Fee has not been established)

**Beverly Hills Division**

(adopted 8/27/12; effective 10/1/12)

Size of Service Line	Tapping Fee			Connection Fee	Customer Facilities Fee
	Distribution		Capacity		
	Type 1	Type 2			
MFR*	\$ 1,130	N/A	\$ 109	*	*
3/4"	2,000	N/A	192	*	*
1"	2,360	N/A	N/A	*	*
1-1/2"	3,470	N/A	N/A	*	*
2"	5,100	N/A	N/A	*	*
3"	8,320	N/A	N/A	*	*
4"	11,580	N/A	N/A	*	*
6"	17,350	N/A	N/A	*	*
8"	23,420	N/A	N/A	*	*
10"	28,930	N/A	N/A	*	*
12"	35,075	N/A	N/A	*	*

(\* See Notes on page 8) N/A - Not Available (Type 2 Fee has not been established)

**Heidelberg Heights Division**

(adopted 8/27/12; effective 10/1/12)

Size of Service Line	Tapping Fee			Connection Fee	Customer Facilities Fee
	Distribution		Capacity		
	Type 1	Type 2			
MFR*	\$ 1,030	N/A	\$ 364	*	*
3/4"	2,000	N/A	708	*	*
1"	2,360	N/A	1,490	*	*
1-1/2"	3,470	N/A	3,320	*	*
2"	5,100	N/A	5,890	*	*
3"	8,320	N/A	13,280	*	*
4"	11,580	N/A	23,570	*	*
6"	17,350	N/A	53,120	*	*
8"	23,420	N/A	94,950	*	*
10"	28,930	N/A	147,570	*	*
12"	35,075	N/A	N/A	*	*

N/A - Not Available (Type 2 Fee has not been established)



**LEHIGH COUNTY AUTHORITY**  
**SCHEDULE OF WATER RATES AND CHARGES (cont'd)**

**IX. Tapping, Connection and Customer Facilities Fees (cont'd)**

**Emmaus Consecutive Division**

(adopted 08/13/07; effective 08/13/07)

Size of Service Line	Tapping Fee			Connection Fee	Customer Facilities Fee
	Distribution		Capacity		
	Type 1	Type 2			
MFR*	\$ 1,000	N/A	\$200	*	*
3/4"	1,480	N/A	400	*	*
1"	2,360	N/A	580	*	*
1-1/2"	3,470	N/A	1,600	*	*
2"	5,100	N/A	2,840	*	*
3"	8,320	N/A	6,400	*	*
4"	11,580	N/A	11,360	*	*
6"	17,350	N/A	25,600	*	*
8"	23,420	N/A	45,520	*	*

N/A - Not Available (Type 2 Fee has not been established)

**Upper Milford Central Division**

(adopted 8/27/12; effective 10/1/12)

Size of Service Line	Tapping Fee	
	Distribution	Capacity
3/4"	\$ 2,000	\$ 235

**Notes:**

**MFR** - Applicable to each dwelling unit in a mobile home park or multi-family dwelling with individual service and individually metered.

**Connection Fee** is based on actual cost of connecting to the Authority water line, extending the service line to the property line, and inspecting the Customer Service Line.

**LEHIGH COUNTY AUTHORITY**  
**SCHEDULE OF WATER RATES AND CHARGES (cont'd)**

---

**Customer Facilities Fee** 2018 Rates: To be determined / submitted separately.

This fee includes the supply and installation of a water meter and a backflow protection device for residential facilities (meter component). The fee can also include, at the customer's option and based on actual cost, installation of a service line from the property line to the customer's facility by the Authority.

All service lines must have an approved backflow protection device installed. The Authority will furnish a DC (dual check) device for residential facilities.

Meter Size	Meter Fee - With DC Backflow	Meter Fee - With No Backflow
5/8"	\$ 366	\$ 335
5/8" Pit	\$ 405	\$ 374
3/4"	\$ 384	\$ 353
3/4" Pit	\$ 415	\$ 384
1"		\$ 427
1" Pit		\$ 448
1 1/2" Displacement *		\$ 675
1 1/2" Turbine *		\$ 908
1 1/2" Compound *		\$ 1,240
2" Displacement *		\$ 874
2" Turbine *		\$ 1,081
2" Compound *		\$ 1,454

\* LCA will install all meters 1" or smaller. Larger meters may be purchased from LCA at the prices listed above, which includes a \$50 inspection fee. If LCA installation of a larger meter is requested, the customer will pay actual costs, on a time and materials basis.

**Notes:**

Backflow protection devices for commercial/industrial facilities shall be approved by the Authority, and supplied, installed and tested by the applicant. Meters larger than 2" shall be approved by the Authority, supplied and installed by the applicant, and inspected by the Authority at the applicant's expense.

**X. Non-Sufficient Funds (NSF) Fee**

**All Divisions** **\$25.00**  
 (adopted 9/24/01, effective 1/1/02)

**XI. Service Initiation Fee**

**All Divisions** **\$15.00**  
 (adopted 9/24/01, effective 1/1/02)

**LEHIGH COUNTY AUTHORITY  
SCHEDULE OF WATER RATES AND CHARGES (cont'd)**

**CITY OF ALLENTOWN**

Adopted 11/13/17; Effective 1/1/18

**NOTE:** Unless expressed specifically in this Schedule of Rates and Charges, customers of the City of Allentown water system are subject to any and all additional charges, fees, penalties and policies stated in Lehigh County Authority's Rules & Regulations for Water Service and its Schedule of Water Rates and Charges duly adopted for its non-City systems.

**A. Metered Water Use**

Meter Size	Current Monthly Charge	2018 Monthly Charge	Current Quarterly Charge	2018 Quarterly Charge
5/8"	\$18.49	\$19.23	\$26.78	\$27.85
3/4"	\$20.51	\$21.33	\$32.84	\$34.15
1"	\$24.66	\$25.64	\$44.94	\$46.73
1 1/2"	\$34.86	\$36.25	\$75.56	\$78.59
2"	\$47.08	\$48.96	\$112.23	\$116.72
3"	\$79.60	\$82.78	\$210.11	\$218.51
4"	\$116.37	\$121.03	\$320.12	\$332.92
6"	\$218.19	\$226.92	\$625.89	\$650.92
8"	\$340.52	\$354.14	\$992.54	\$1,032.24

Volume	Current Rate per 1000 Gallons*	2018 Rate per 1000 Gallons*
All Volume	\$ 3.28368	\$3.42003

\* Volume charge includes cost recovery for any Change of Law and cost passed through from the Delaware River Basin Commission as allowed under the Lease Agreement with the City of Allentown.

**B. Capital Cost Recovery Charge** **\$0.09323 per 1000 gallons**  
**2018 Rate: \$0.21834**

**C. Private Fire Protection**

<b>Each Hydrant</b>	<b>\$328.24 per year</b> (may be billed monthly or quarterly)	<b>2018 Rate:</b> <b>\$341.37</b>
---------------------	--	--------------------------------------

**D. Tapping Fees**

**Part 1 – Pre-Concession Rate for Pre-Concession Capital Cost Recovery**  
\$5.38 per gallon **2018 Rate: \$5.59**

**Part 2 – Post-Concession Rate for LCA Capital Cost Recovery**  
 Capacity Part \$0.00851 per gallon  
 Distribution Part \$0.02551 per gallon

**2018 Rates:** To be determined / submitted separately.

**LEHIGH COUNTY AUTHORITY  
SCHEDULE OF WATER RATES AND CHARGES (cont'd)**

**E. Customer Facilities Fees**      **2018 Rates:** To be determined / submitted separately.

Fees includes the supply and installation of a water meter and associated components.

Meter Size	With LCA Installation*	Without LCA Installation*
5/8"	\$268	
3/4"	\$324	
1"	\$316	
1 1/2"	\$509	
2"	\$626	
3" Compound		\$1,618
3" Turbine		\$1,180
4" Compound		\$2,687
4" Turbine		\$2,133
6" Compound		\$4,518
6" Turbine		\$3,700
8" Compound		\$7,221
8" Turbine		\$6,181

\* LCA will install all meters 2" or smaller. Larger meters may be purchased from LCA at the prices listed above, which includes a \$50 inspection fee. If LCA installation of a larger meter is requested, the customer will pay actual costs, on a time and materials basis.

Other Components	Price
5/8" Meter Horn	\$41.00
3/4" Meter Horn	\$59.00
Curb Box	\$67.84

**LEHIGH COUNTY AUTHORITY**  
**SCHEDULE OF WATER RATES AND CHARGES (cont'd)**

---

**F. Connection Fee** **2018 Rates:** To be determined / submitted separately.

Actual cost of connecting to the Authority water line, completed by Authority personnel. Additional fees may apply for service line inspection, plan review, construction permits and/or capital recovery charges. Please contact the Authority's Capital Works department for more information.

Tap Size	Connection Fee
3/4"	\$318
1"	\$338
1 1/2"	\$480
2"	\$590
4" x 4"	\$1,735
6" x 4"	\$1,741
6" x 6"	\$1,902
8" x 4"	\$1,754
8" x 6"	\$1,907
8" x 8"	\$2,342
12" x 4"	\$1,861
12" x 6"	\$2,020
12" x 8"	\$2,439
12" x 12"	\$3,808

**LEHIGH COUNTY AUTHORITY  
SCHEDULE OF WASTEWATER RATES AND CHARGES**

---

**UPPER MILFORD TOWNSHIP, WEISENBERG TOWNSHIP,  
HEIDELBERG HEIGHTS, WYNNEWOOD, SAND SPRING, WASHINGTON  
TOWNSHIP, LOWHILL TOWNSHIP, LYNN TOWNSHIP, WESTERN LEHIGH  
INTERCEPTOR & LITTLE LEHIGH RELIEF INTERCEPTOR SYSTEMS**

**I. Schedule of Wastewater Rates**

**A. Lowhill Township System**

(adopted 06/13/16; effective 06/08/16)

<b>Flow Charge</b>	<b><u>\$/1,000 gals</u></b>
All Flow	4.53
<b>Fixed Charge per Quarter</b>	<b><u>\$ per Equivalent Dwelling Unit (EDU)</u></b>
- Multi-Family Residential	10.50
- All Other Accounts	21.00

**B. Upper Milford Township System**

(adopted 12/10/12; effective 01/01/13)

<b>Flow Charge</b>	<b><u>\$/1,000 gals</u></b>
All Flow	4.53
<b>Fixed Charge per Quarter</b>	<b><u>\$ per Equivalent Dwelling Unit (EDU)</u></b>
- Multi-Family Residential	10.50
- All Other Accounts	21.00

**C. Weisenberg Township System**

(adopted 12/10/12; effective 01/01/13)

<b>Flow Charge</b>	<b><u>\$/1,000 gals</u></b>
All Flow	4.53
<b>Fixed Charge per Quarter</b>	<b><u>\$ per Equivalent Dwelling Unit (EDU)</u></b>
- Multi-Family Residential	10.50
- All Other Accounts	21.00

**LEHIGH COUNTY AUTHORITY  
SCHEDULE OF WASTEWATER RATES AND CHARGES**

---

**Western Weisenberg Township System (Arcadia West)**

(adopted 12/11/06; effective 01/01/07)

<b>Quarterly Flow Charge</b>	<b><u>\$/1,000 gals</u></b> 58.00
<b>Quarterly Fixed Charge</b>	<b><u>\$/1000 gals of Allocation per day</u></b> 7.55

**C. Heidelberg Heights System**

(adopted 12/10/12; effective 01/01/13)

<b>Flow Charge</b>	<b><u>\$/1,000 gals</u></b>
All Flow	9.53
<b>Fixed Charge per Quarter</b>	<b><u>\$ per Equivalent Dwelling Unit (EDU)</u></b>
- Multi-Family Residential	10.50
- All Other Accounts	21.00

**D. Wynnewood System**

(adopted 12/10/12; effective 01/01/13)

<b>Flow Charge</b>	<b><u>\$/1,000 gals</u></b>
All Flow	9.53
<b>Fixed Charge per Quarter</b>	<b><u>\$ per Equivalent Dwelling Unit (EDU)</u></b>
- Multi-Family Residential	10.50
- All Other Accounts	21.00

**E. Sand Spring System**

(adopted 12/10/12; effective 01/01/13)

<b>Flow Charge</b>	<b><u>\$/1,000 gals</u></b>
All Flow	9.53
<b>Fixed Charge per Quarter</b>	<b><u>\$ per Equivalent Dwelling Unit (EDU)</u></b>
- Multi-Family Residential	10.50
- All Other Accounts	21.00

**LEHIGH COUNTY AUTHORITY  
SCHEDULE OF WASTEWATER RATES AND CHARGES**

---

**F. Wastewater Treatment Plant Direct Customer**

(adopted 12/10/12; effective 01/01/13)

<b>Flow Charge</b>	<b><u>\$/1,000 gals</u></b>
All Flow	4.53
<b>Fixed Charge per Quarter</b>	<b>\$21.00*</b>

\* Per Equivalent Dwelling Unit (EDU)

**G. Washington Township System**

(adopted by resolution of Washington Township Board of Supervisors 12/2/08; effective 1/1/09 – Administered by Lehigh County Authority per agreement, as operator, approved 4/13/09; effective 1/1/09. Current rate adopted by LCA 12/10/12; effective 01/01/13). All other Authority administrative fees shall apply to these customers, including those set forth in the Metering Fees and Other Charges categories of this schedule.

<b>Fixed Charge</b>	<b>\$/qtr</b>
All customers	\$124.00
<b>Flow Charge</b>	<b>\$/1,000 gals</b>
All flow	\$5.00

**H. Lynn Township**

(adopted 12/07/11; effective 01/01/12)

<b>Flow Charge</b>	<b><u>\$/1,000 gals</u></b>
Commercial accounts, flow in excess of 15,000 gallons per quarter	7.20
<b>Fixed Charge per EDU per Quarter</b>	<b>\$158.98</b>

---



**LEHIGH COUNTY AUTHORITY  
SCHEDULE OF WASTEWATER RATES AND CHARGES**

---

**II. Metering Fees**

**A. Meter Purchase/Installation Fee**  
(adopted 2/27/17; effective 3/1/17)

**2018 Rates:** To be determined / submitted separately.

Meter Size	Purchase & Inspection *
5/8"	\$ 296
5/8" Pit	335
3/4"	314
3/4" Pit	345
1"	388
1" Pit	409
1-1/2"	675
1-1/2" Pit	908
2" Displacement	1,240
2" Displacement Pit	874
2" Turbine	1,081
2" Compound	1,454

\* Prices include ECR meter with touchpad, radio read unit and installation wire, plus \$50 inspection fee. Plumber shall install all components and call for meter inspection by LCA personnel.

**B. Meter Inspection Fee **\$50.00****  
(adopted 12/15/14; effective 1/1/15)

**C. Meter Test Fee**  
(adopted 12/15/14; effective 1/1/15)

Meter Size	Fee
5/8", 3/4", 1"	\$50.00
Larger than 1"	Actual Cost if >\$50

**III. Other Charges**

**A. Service Order / Site Visit Fee**  
(adopted 12/15/14; effective 1/1/15)

Business Hours – 7:00 a.m. and 4:45 p.m., **\$50.00**  
Monday through Friday (except holidays)

After Hours **\$150.00**

**B. Site Revisitation Charge **\$100.00****  
(adopted 12/15/14; effective 1/1/15)

**LEHIGH COUNTY AUTHORITY  
SCHEDULE OF WASTEWATER RATES AND CHARGES**

---

- C. Lien Administration Fee**  
(adopted 12/13/04; effective 01/01/05)  
  

**\$56.50 + Current Lehigh County Clerk of Court's Filing Fee**
  
- D. Non-Sufficient Funds (NSF) Fee** **\$25.00**  
(adopted 9/24/01, effective 1/01/02)
  
- E. Service Initiation Fee** **\$15.00**  
(adopted 9/24/01, effective 1/01/02)
  
- F. Sampling and Testing Charges** **\$170.00/day**  
(adopted 12/18/00; effective 1/1/01)  
(Commercial & Industrial)
  
- Fats-Oils-Greases Analysis** **\$36.00/sample**  
(adopted 7/27/09; effective 8/1/09)
  
- G. Exceptional Strength Charges**  
(adopted 11/13/17; effective 1/1/18)

(Commercial & Industrial)	Current Rates \$ / pound	2018 Rates \$ / pound
BOD	0.26	0.29
TSS	0.24	0.25
TKN	0.40	0.37

- H. Use of Easement Preparation Fee** **\$90.00**  
(adopted 12/07/11; effective 01/01/12)

**LEHIGH COUNTY AUTHORITY  
SCHEDULE OF WASTEWATER RATES AND CHARGES**

**IV. Capital Recovery Charges**

System	Tapping Fee \$/gallon/day	Tapping Fee \$/EDU	Connection Fee	Customer Facilities Fee
<b>Upper Milford System</b> (adopted 8/28/17; effective 9/1/17)			Actual Cost Trended*	Actual Cost Trended*
Route 29 Service Area				
Contributed Area (includes Western Lehigh fees plus UMiT Capacity Part)	16.98	3,857.83		
LCA-Installed Area (includes Contributed Area fees plus UMiT Collection Part)	24.72	5,674.00		
Lower Macungie Twp. Customer	2.56	611.52		
Other Service Areas				
Contributed Area (includes Western Lehigh fees plus UMiT Capacity Part- Other)	11.66	2,607.97		
Non-Contributed Area (includes Contributed Area fees plus UMiT Collection Part)	19.40	4,424.15		
<b>Western Weisenberg Twp System</b> (adopted 6/27/16; effective 7/1/16)				
LCA Planning Fee	2.52	661.50	Historical Cost plus Financing	
LCA Land Fee	3.96	1,040.25	Historical Cost plus Financing	
Wastewater Treatment Plant	38.51	10,108.10	Actual Cost Trended	
<b>Arcadia West Only:</b>				
Reimbursement Fee – Collection Part	50.02	13,130.32	Actual Cost Trended	
Reimbursement Fee – Capacity Part	33.06	8,678.82	Actual Cost Trended	
<b>Wynnewood System</b> (adopted 8/28/17; effective 9/1/17)				
Capacity	10.64	2,567.32	Actual Cost	Actual Cost
Collection	11.56	2,788.31		
<b>Heidelberg Heights System</b> (adopted 8/28/17; effective 9/1/17)				
Capacity	22.34	5,388.26	Actual Cost	Actual Cost
Collection	3.49	842.74		
<b>Sand Spring System</b> (adopted 8/28/17; effective 9/1/17)				
Capacity	5.97	1,441.01	Actual Cost	Actual Cost
Collection	3.52	849.83		

\*If constructed by Authority; if constructed by property owner, a \$90 inspection fee applies.

The capital recovery fees set forth in this schedule do not apply to the Washington Township sewer system since the Washington Township Board of Supervisors establishes such fees and administers capital recovery fees directly.

**LEHIGH COUNTY AUTHORITY  
SCHEDULE OF WASTEWATER RATES AND CHARGES**

---

**WESTERN LEHIGH INTERCEPTOR SYSTEM**

**I. Schedule of Wastewater Rates**

(adopted 11/13/17; effective 1/1/18)

<b>LCA Signatories</b>	<b>Current Rates (\$)</b>	<b>2018 Rates (\$)</b>
Flow (per 1,000 gallons)	1.13	0.98
BOD (per pound)	0.26	0.29
TSS (per pound)	0.24	0.25
TKN (per pound)	0.40	0.37
Allocation (per 1,000 gallons per day)	0.20	0.18
<b>Emmaus</b>		
Flow (per 1,000 gallons)	0.33	0.23

**II. Tapping Fee**

(adopted 8/28/17; effective 9/1/17)

<b>System</b>	<b>Tapping Fee \$/gal/day</b>	<b>Tapping Fee \$/EDU</b>	<b>Costing Method</b>
<b>Treatment Allocation</b>	<b>6.11</b>	<b>1,363.61</b>	<b>Historical Trended Cost</b>
<b>Western Lehigh Interceptor</b>	<b>3.87</b>	<b>863.34</b>	

**LITTLE LEHIGH RELIEF INTERCEPTOR SYSTEM**

**I. Schedule of Wastewater Rates**

(adopted 11/13/17; effective 1/1/18)

	<b>Current Rate (\$)</b>	<b>2018 Rate (\$)</b>
<b>LCA Signatories – Phase 1</b>	0.15	0.27
Flow (per 1,000 gallons)		
<b>Other Users – Lower Macungie Phase 2 &amp; Brookside Road, Salisbury, and So. Whitehall Townships</b>		
Flow (per 1,000 gallons)	0.11	0.21
<b>LCA Signatories – Phase 2 Flow (per 1,000 gallons)</b>	0.02	0.03

**LEHIGH COUNTY AUTHORITY  
SCHEDULE OF WASTEWATER RATES AND CHARGES**

---

**II. Tapping Fee**

(adopted 8/27/17; effective 9/1/17)

<b><u>System</u></b>	<b><u>Tapping Fee \$/gal/day</u></b>	<b><u>Tapping Fee \$/EDU</u></b>	<b><u>Costing Method</u></b>
Little Lehigh Relief Interceptor	1.10	245.66	Historical Trended Cost

---

**LINE INSPECTION AND CLEANING SERVICES**

(adopted 7/27/09; effective 8/1/09)

<b><u>Crew Size</u></b>	<b><u>TV Inspection (\$/hr)</u></b>	<b><u>Sewer Cleaning (\$/hr)</u></b>	<b><u>Flow Monitoring (\$/hr)</u></b>
One Technician			
Regular Rate	\$111	\$116	\$68
Overtime Rate	\$140	\$144	\$96
Two Technicians			
Regular Rate	\$168	\$173	\$125
Overtime Rate	\$226	\$230	\$182
Three Technicians			
Regular Rate	\$226	\$230	N/A
Overtime Rate	\$311	\$316	N/A

**LEHIGH COUNTY AUTHORITY  
SCHEDULE OF WASTEWATER RATES AND CHARGES**

**CITY OF ALLENTOWN**

Adopted 11/13/17; Effective 1/1/18

**NOTE:** Unless expressed specifically in this Schedule of Rates and Charges, customers of the City of Allentown wastewater system are subject to any and all additional charges, fees, penalties and policies stated in Lehigh County Authority's Rules & Regulations for Sewerage Service and its Schedule of Wastewater Rates and Charges duly adopted for its non-City systems.

**A. Sewer Usage Charges**

Meter Size	Current Monthly Charge	2018 Monthly Charge	Current Quarterly Charge	2018 Quarterly Charge
5/8"	\$6.43	\$6.69	\$9.29	\$9.66
3/4"	\$7.12	\$7.41	\$11.39	\$11.84
1"	\$8.52	\$8.86	\$15.57	\$16.19
1 1/2"	\$12.00	\$12.48	\$26.02	\$27.06
2"	\$16.18	\$16.83	\$38.56	\$40.11
3"	\$27.42	\$28.51	\$72.02	\$74.90
4"	\$39.96	\$41.56	\$109.89	\$114.29
6"	\$74.89	\$77.88	\$214.67	\$223.26
8"	\$137.38	\$142.88	\$338.75	\$352.30

Flow Charge	Current Rate per 1000 Gallons*	2018 Rate per 1000 Gallons*
All flow based on metered water usage***	\$ 2.36927	\$2.46425

\* Flow charge includes cost recovery for any Change of Law and cost passed through from the Delaware River Basin Commission as allowed under the Lease Agreement with the City of Allentown.

\*\*\* Unmetered residential accounts will be charged for flow based on an average usage of 180 gallons per day.

**B. Capital Cost Recovery Charge**

**\$0.05012 per 1000 gallons**

<b>2018 Rate:</b> \$0.04895
--------------------------------

**C. Administrative Order Fee**

**\$0.20251 per 1000 gallons**

Administrative Order Fee is collected to reimburse the City of Allentown for expenses associated with complying with the USEPA Administrative Order to correct / eliminate sanitary sewer system overflows.

<b>2018 Rate:</b> \$0.03084
--------------------------------

**D. Tapping Fees**

**Part 1 – Pre-Concession Rate for Pre-Concession Capital Cost Recovery**

\$4.10 per gallon

<b>2018 Rate:</b> \$4.26
--------------------------

**Part 2 – Post-Concession Rate for LCA Capital Cost Recovery**

Capacity Part \$0.01538 per gallon

Collection Part \$0.00052 per gallon

<b>2018 Rates:</b> To be determined / submitted separately.
---

**LEHIGH COUNTY AUTHORITY  
SCHEDULE OF WASTEWATER RATES AND CHARGES**

---

**E. Exceptional Strength Charges**

(Commercial & Industrial)	<b>Current Rate \$ / pound</b>	<b>2018 Rate \$ / pound</b>
BOD	0.255	0.265
TSS	0.220	0.220
TKN	0.375	0.371

**F. Industrial Pretreatment Program Fees**

<b>Program Charge / Testing Fees</b>	<b>Current Rate</b>
Issue Initial Two (2) Year Permit	\$1,200.00
Renewal Fee	\$575.00
Review of Monitoring Reports Required by Federal Regulations	\$275.00
Single Occurrence Review	\$350.00
Site Visitations and Inspection	\$130.00
Monitoring Reports Preparation	\$135.00
Placement of Chemical Samplers	\$105.00
Sample Collection and Preparation	\$52.50
Biochemical Oxygen Demand	\$27.50
Cyanide, Total	\$43.00
Oil & Grease	\$48.50
pH	\$12.00
Phenols	\$42.50
Solids, Total Dissolved	\$14.50
Solids, Total Suspended	\$17.50
Solids, Total	\$14.50
Sulfides	\$25.50
Total Kjeldahl Nitrogen (TKN)	\$28.50
Total Petroleum Hydrocarbons	\$40.00
Total Phosphorous as P	\$21.00
Cadmium	\$15.00
Chromium	\$15.00
Copper	\$15.00
Lead	\$15.00
Molybdenum	\$15.00
Nickel	\$15.00
Silver	\$15.00
Selenium	\$15.00
Zinc	\$15.00
Mercury	\$23.00
Cobalt	\$15.00
Lithium	\$15.00
SVOA 625	\$225.00
Diesel Range Organics	\$75.00

---

## MEMORANDUM

---

**Date:** November 13, 2017

**To:** Lehigh County Authority Board  
**From:** Amy Kunkel, LCA Project Engineer  
**Subject:** Suburban Division – Spring Creek  
Relief Pump Station Improvements – Construction Phase

**MOTIONS / APPROVALS REQUESTED:**

No.	Item	Amount
1	<b>Capital Project Authorization – Construction Phase</b>	<b>\$412,333.00</b>
2	Construction Contract – General (*): Blooming Glen Contractors, WW	\$156,093.00
3	Construction Contract – Electrical (*): A. N. Lynch Co., Inc.	\$180,000.00
4	Professional Services – Construction Phase Engineering (*): JMT, Inc	\$11,240.00

(\*): Included in Capital Project Authorization

**PROJECT OVERVIEW**

The Spring Creek Pump Station (SCPS) is a submersible sewage pumping station with a rated capacity of 7 MGD. It was constructed in 1996 to relieve excess gravity flows in the section of LCA Western Lehigh Interceptor (WLI) from the SCPS to just past the Meter Station in the Lehigh Parkway.

The pump station wet well and mechanical components are located near the intersection of Spring Creek Road and Mill Creek Road, near the Little Lehigh Creek in Lower Macungie Township, Lehigh County. Wastewater flow from the upstream interceptor channel is diverted into the wet well by two manually adjustable side by side 30” x 48” weir gates. Prior to a wet weather event, the gates are adjusted to allow more flow into the wet well, which increases the amount of wastewater pumped, resulting in added temporary capacity for wet weather flow in the section of the WLI that is relieved by the SCPS.

The above grade pump station service building is located approximately 1000’ to the northwest of the pumping station, out of the 500 year floodplain, and houses instrumentation, controls, SCADA communication, and emergency power.



**PROJECT OBJECTIVES**

Upgrades to the pumping station include the following:

1. Installation of a comminutor in the wet well to replace existing bar screens. The bar screens are located just upstream of the weir gates. Debris accumulates on the bar screens and reduces the capacity of the station.
2. Replacement of the weir gates with new motorized weir gates automated by ultrasonic level detectors. Automating the gates will enable remote operation, and optimize station operations for handling wet weather events.
3. The existing SCADA system is obsolete; parts needed for repairs and replacements are difficult to obtain. This project includes replacement of the two existing Modicon Programmable Logic Controllers (PLC) located in the service building with new Modicon M340 PLCs. Convert the existing Modbus+ program to UnityPro and modify to include station upgrades.

**FUNDING**

The Project will be funded by the LCA Suburban Division.

**BUDGET AMENDMENT**

Not required

**PROJECT STATUS**

Board approval is requested for the Construction Phase.

**THIS APPROVAL – CONSTRUCTION PHASE**

**BIDDING SUMMARY**

This project consists of two contracts. The project was advertised for bid on October 11, 2017. A mandatory pre-bid meeting was held on October 19, 2017. Bids were received via PennBid on November 2, 2017, the results of which are as follows:

<b>General Construction</b>	
<b>Bidder</b>	<b>Bid Amount</b>
<b>Blooming Glen Contractors, WW</b>	<b>\$156,093.00</b>
<b>DESCCO Design Construction, Inc.</b>	<b>\$175,252.00</b>
<b>JEV Construction, LLC</b>	<b>\$184,500.00</b>
<b>Electrical Construction</b>	
<b>Bidder</b>	<b>Bid Amount</b>
<b>A. N. Lynch Co., Inc.</b>	<b>\$180,000.00</b>
<b>Blooming Glen Contractors WW</b>	<b>\$183,217.00</b>
<b>Orlando Diefenderfer Electric Co.</b>	<b>\$188,900.00</b>

Blooming Glen Contractors has worked for LCA before, their most recent project being the Lynn Township WWTP Upgrade, and has performed their work in a satisfactory manner. A. N. Lynch Co. has extensive water and wastewater facility electrical construction experience. Our electrical engineer has worked with them on several projects, and they have good references. Both firm's qualifications and experience statements indicate numerous projects of similar scope and type. The bid documents are in order and the firms appear well qualified to perform the work.

**PROFESSIONAL SERVICES**

Construction engineering is to be performed by JMT, Inc., the design engineer for the project.

**PROJECT SCHEDULE**

Based on contract award following the November 13, 2017 Board meeting, it is anticipated that the project will be completed by May 2018.

**FUTURE AUTHORIZATIONS**

None

## CAPITAL PROJECT AUTHORIZATION

<b>PROJECT NO.:</b>	SD-S-16-5	<b>BUDGET FUND:</b>	Suburban Div\Wastewater\Capital
<b>PROJECT TITLE:</b>	Spring Creek Relief Pump Station Improvements – Construction Phase	<b>PROJECT TYPE:</b>	<input checked="" type="checkbox"/> Construction <input type="checkbox"/> Engineering Study <input type="checkbox"/> Equipment Purchase <input type="checkbox"/> Amendment
<b>THIS AUTHORIZATION:</b>	\$412,333		
<b>TO DATE (W/ ABOVE)</b>	\$563,477		

**DESCRIPTION AND BENEFITS:**

This Authorization is for the construction of improvements which includes installing a comminutor in the wet well, installing new automated weir gates to allow for remote operation, and upgrade of the SCADA system to allow full remote control and monitoring of the facilities. This authorization takes the project through construction phase.

Previous Authorizations	
Planning Phase	\$13,015
Design Phase	\$138,129

REQUESTED THIS AUTHORIZATION	
Construction Phase	
Staff	\$25,000
Professional Services	
Construction Engineering - JMT, Inc.	\$11,240
Contract 1-General Construction	\$156,093
Contract 2-Electrical Construction	\$180,000
Miscellaneous	\$5,000
Contingency	\$35,000
<b>Total This Authorization</b>	<b>\$412,333</b>

Future Authorization	
None	

<i>Total Estimated Project</i>	<i>\$563,477</i>
--------------------------------	------------------

**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:** JMT, INC.  
7535 Windsor Drive  
Suite 204B  
Allentown, PA 18195

**Date:** November 13, 2017

**Requested By:** Amy Kunkel

**Approvals**

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

**Chief Executive Officer:** \_\_\_\_\_

---

---

**Suburban Division- Spring Creek Relief Pump Station Improvements**

*Previous Authorizations- Design Phase; \$59,129*

**This Authorization- Construction Phase Engineering: \$11,240**

JMT, Inc. will provide the following construction engineering related services for the aforementioned project

<b>Professional Services</b>
1. Attend Pre-Construction Meeting and Prepare/distribute Minutes
2. Attend Progress Meetings
3. Respond to design related RFIs
4. Log, review and process shop drawing submittals
5. Attend Substantial Completion Meeting

**Total Authorizations** (not to be exceeded without further authorization): **\$70,369**

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

---

---

**(For Authority Use Only)**

**Authorization Completion:**

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

**Note:** The following language for the “Application for Service” section of the Authority’s Rules & Regulations document is offered in a red-lined format to easily display the suggested language changes. No other portions of the document are modified through this action.

---

## **RULES & REGULATIONS FOR SEWERAGE SERVICE**

### **LEHIGH COUNTY AUTHORITY**

**EFFECTIVE 13 NOVEMBER 2017**

#### **TABLE OF CONTENTS:**

1. DEFINITIONS
- 2. APPLICATION FOR SERVICE - MODIFIED AS SHOWN BELOW**
3. CONDITIONS OF SERVICE
4. GENERAL REGULATIONS
5. CONNECTIONS/ CUSTOMER LATERALS
6. EXTENSION OF SERVICE
7. HAULED WASTE DISPOSAL AT THE PRETREATMENT PLANT
8. RATES AND CHARGES
9. VIOLATIONS AND PENALTIES
10. MISCELLANEOUS

---

#### **2. APPLICATION FOR SERVICE**

- a. Suburban Division Wastewater Systems Application and Contract: Premises abutting existing mains may obtain service by filing a wastewater treatment allocation application, obtaining a construction permit, submitting plumbing and site development plans for review, paying all applicable fees and charges and fulfilling all other requirements of the Authority. If the premises requires a main extension from the Authority System for service, the terms established in §6 also apply. The location of the premises determines the appropriate allocation application to file. For connections to a system, which ultimately flows to the Western Lehigh Interceptor, it is also necessary to obtain certification by the municipality where the property is located that municipal requirements have been met.

Approval of the wastewater treatment allocation application is contingent on sufficient allocation existing. Allocation purchased must be used for the Premises for which it was purchased and purchased allocation cannot be resold or transferred by the owner to another Person for a different Premises. Rules in regard to ~~unused~~ allocation for wastewater that will ultimately flow through the Western Lehigh

Interceptor are set forth in agreements among the municipal entities that use the Western Lehigh Interceptor and the Authority's Wastewater Allocation Procedures established by the Authority's management staff, which then current version is made a part hereof. Rules in regard to allocation for wastewater from an Authority satellite system that does not ultimately flow through the Western Lehigh Interceptor shall also be subject to, and in compliance with, the Authority's Wastewater Allocation Procedures. ~~shall return to the Authority for re-use if the Premises for which the allocation was purchased is abandoned or has not discharged wastewater for five (5) years; the subdivision or land development approvals for the Premises for which the allocation was purchased lapses; upon voluntary return by the owner of the allocation; or any circumstance where a Premises is completed and there is remaining allocation for which there is no practical use in regard to the Premises within a reasonable time in the future.~~

~~(2) The provision of Service to a property by the Authority shall constitute the contractual relationship between the Authority and the customer based upon the terms set out in these Rules & Regulations for Sewerage Service, as well as any other applicable Authority policies.~~

- b. City Division Wastewater Systems Application and Contract: Application for service and procedures for obtaining such service shall be in accordance with the provisions of §10(e) herein, as well as any applicable memoranda of understanding or other guidance documents that are developed by management staff independently or in collaboration with the City.
- c. Separate Application for Each Premises: Any person who desires Service at more than one premises must make separate application for each premises. In the situation where the Authority allows multiple premises to be served by a single Customer Lateral, each premises connected to the single Customer Lateral would nevertheless be billed separately.
- d. Contract established with service: The provision of Service to a property by the Authority shall constitute the contractual relationship between the Authority and the customer based upon the terms set out in these Rules & Regulations for Sewerage Service, as well as any other applicable Authority policies.
- e. Premises with Tenant: The property owner is responsible to submit an application for Service whenever a premises is occupied by a tenant or there is any change in tenancy. The owner may give written permission for the Authority to bill the tenant directly; however, the Authority will determine if such billing arrangement is acceptable, and if acceptable, the property owner shall retain ultimate responsibility for all bills for Service provided to the premises.
- f. Industrial and commercial customers: Federal law and regulation require that certain industrial and commercial dischargers to public sanitary sewer systems must

establish pretreatment of their waste if certain pollutants are present in their wastewater discharge.

For industrial and commercial customers who discharge to systems connected to the Western Lehigh Interceptor system, wastewater is treated at the City of Allentown treatment plant at Kline's Island. In this case, it is the City's permit that contains such requirements and therefore the City has developed and implemented an industrial pretreatment program. The Authority has entered into an agreement with the City making the conditions and requirements of the City sewage and industrial wastes ordinance applicable to Authority industrial and commercial customers and authorizing the City to administer the program with such customers. Application for the necessary industrial discharge permits, however, shall be made to the Authority who will forward it to the City for processing.

In Authority systems where wastewater is not treated by the City, these federal laws and regulations are still applicable and the program will be administered by the Authority.

**FINANCE & ADMINISTRATION**

**ACTION ITEMS**

**1. 2018 Water & Wastewater Rate Schedules – November 13, 2017**

Following completion of the 2018 budget process, a complete package of water and wastewater rate updates is presented to the Board for consideration and adoption. The rates shown in proposed rate schedules are a result of the budget process and the Suburban Water Division water rate study that is currently under way. Board approval for the updated rate schedule is requested at the November 13, 2017 meeting to allow for proper notification to customers prior to bills being issued with the new rates.

**DISCUSSION ITEMS**

**INFORMATION ITEMS**

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

CERTIFICATES OF DEPOSIT						
27-Oct-17						
Fund	Bank	Location	Gross Amount	Date of Purchase	Date Due	Net Rate %
Cons Wtr (2)	First Technology FCU	Mountain View, CA	249,000.00	10/16/17	10/16/19	1.8
Cons Wtr (2)	CBC FCU	Oxnard, CA	248,000.00	10/20/17	10/21/19	1.7
Cons Wtr (2)	Comenity Capital Bank	Salt Lake City, Ut	248,000.00	10/23/17	4/23/19	1.6
Cons Wtr (2)	Keybank National Assoc	Cleveland, OH	248,000.00	10/25/17	10/25/19	1.65

Cons Wtr (2)	Consolidated Water (2)
LLRI CR	Little Lehigh Relief Interceptor Capital Reserves
Cons LL2 (314)	Consolidated Little Lehigh Relief Interceptor 2
WW Capac	Wastewater Capacity
2010 Wtr Cons A	2010 Water Construction, Series A Bond
Wtr R&R	Renewal and Replacement

**2. Developments**

Water system construction is occurring in the following developments:

- Fields at Indian Creek, Phase 2, 35 private, age-restricted/senior residential units (sfd), UMiT, water & sewer
- Highgate, Phase 3 (Dunbar Tract) SF4/5, 17 residential lots (sfd), UMT
- Spring View (Bortz Tract), 14 commercial units, UMT
- Trexler Business Center, 1 Commercial Lot with 6 commercial buildings, LMT
- Trexler Fields, Phase 1B/8/9, 100 residential lots (sfa), UMT

Water system plans are being reviewed for the following developments:

- Diocesan Pastoral Center, 2 commercial lots, 3 additional lots and residual lot for existing cemetery, LMT
- Farr Tract, 17 residential lots (sfd), LMT
- Grant Street Townes, 18 residential lots (sfa), WashT



Green Acres Mobile Home Court, master meter 590 existing units (sfd), UMT  
Hickory Park Estates, 3 residential lots (sfd), UMT  
Hillview Farms, 31 residential lots (sfd), LMT/SWT  
Indian Creek Industrial Park, 6 commercial lots, UMiIT, water and sewer  
Kohler Tract, 125 residential lots (sfa), UMiIT, water and sewer  
Lehigh Hills, Lot 5, Phase 1, 273 apartments & clubhouse, UMT  
Mary Ann's Plaza, 1 lot with 12 commercial units, NWT  
Morgan Hills, 40 residential lots (sfd), WeisT, water and sewer  
Schoeneck Road, Lot 1, 1 lot warehouse, LMT  
Shepherd's Corner, 1 commercial lot, LMT  
Spring Creek Properties Settlement Subdivision, Lot 1, 1 commercial lot, LMT  
Stone Hill Meadows, Phase 2, 85 residential units (sfd), LMT  
Weilers Road Twins, 82 residential lots (sfa), UMT  
Woodmere Estates, 60 residential units (sfd), UMT

Sewage Planning Modules Reviewed in Prior Month:

Parkland Elementary School, UMT, 1,875 gpd  
LMT Community Center Expansion, LMT, 500 gpd  
3865 Fish Hatchery Road, LMT, 223 gpd

## WATER

### ACTION ITEMS

---

### DISCUSSION ITEMS

---

### INFORMATION ITEMS

---

1. **Allentown Division - Water Filtration Plant / Water Distribution: Flood Pump Replacement**

Upgrades to the existing stormwater pump/control for the WFP and D&C parking lot were needed due to equipment age. The existing flood pump (centrifugal) was replaced with a new submersible flood pump. Miscellaneous electrical upgrades also occurred. In addition, a new raw water magmeter and two new chemical feed tanks were installed at the Water Filtration Plant. Board Approval was granted at the January 23<sup>rd</sup> Board Meeting. Construction began in April of 2017 and was completed in late September. This capital project is funded by the LCA Allentown Division. **(No Change)**

2. **Allentown Division – Hamilton Street Cedar Creek Bridge Water Main Relocation Project**

As part of the Pennsylvania Rapid Bridge Replacement Program, the replacement of the Cedar Creek Bridge on Hamilton Street has required the relocation of approximately 500 linear feet of water main. The Design phase was approved at the December 2016 Board meeting. As of June 2, 2017 Gannett Fleming our Engineer has submitted their design of the relocation to the state and is awaiting their approval. It is anticipated that this work will be reimbursed 100% by the state and that the construction related activities will be incorporated within the state's work. **(No Change)**

3. **Allentown Division – Pre-Lease Valve Replacements**

The project scope includes the replacement of approximately 50 inoperable valves in multiple locations throughout the City that existed prior to the lease settlement. The bid was authorized for award at the June 26, 2017 board meeting. As of October 30, 2017 our contractor has completed 100% of their contract with LCA and is in the process of project closeout. The project is classified as uncompleted work and will be funded by the City of Allentown.

4. **Allentown Division – Schantz Spring Main Replacement**

The project is the replacement of approximately 2,000 linear feet of 1903 vintage 30-inch diameter water main in Martin Luther King, Jr. Boulevard from the Water Filtration Plant heading towards Schribers Bridge. This project also includes addressing other leaks that were identified during the "SmartBall" leak detection work completed by the City of Allentown (COA). Bids were received on July 13, 2017. The Board approved the construction contract at the July 24, 2017 Board meeting, Notice to Proceed was issued August 29, 2017. As of October 30, 2017 our contractor has completed nearly 50% of their contract of both the main line replacement on MLK Blvd and of the leak site areas. This Project is identified as Schedule-7 Work and will be funded by LCA Allentown Division.

5. **Allentown Division – Schantz Spring Exposed Main Replacement**

This project will replace approximately 110 linear feet of the 30-inch diameter water main that supplies water from Schantz Spring to the Water Filtration Plant on the county's property at Cedarbrook where the line crosses a swale from I-78. The project will demolish the concrete culvert that carries the pipe over the swale and install a new pipe under the swale. The project will be funded by the LCA Allentown Division. The Public Water Supply Permit was issued by DEP in August 2017. Following receipt of Bids on 9/20/17, a construction contract is being signed and the preconstruction meeting scheduled.

6. **Suburban Division – CLD Auxiliary Pump Station Project**

The project will feature the installation of a new booster pumping station and water main extension to pump water from the Lower Pressure System to the Upper Pressure System. The project will also involve installation of a SCADA system. The Public Water Supply (PWS) permit application package is ready for submission to DEP. Design and permitting of the pump station will be completed by the end of 2017, and the station will be constructed in 2018 **(No Change)**.

7. **Suburban Division - Water Main Replacement Program Cycle 3**

The project consists of the replacement of approximately 1 mile of aged and/or failing Cast Iron water main. The design phase of this project was approved at the January 2015 Board meeting. Bids were received on July 13, 2017. The Board approved the construction contract at the July 24, 2017 Board meeting, Notice to Proceed was issued August 29, 2017. As of October 30, 2017 our contractor has completed nearly 90% of their contract with LCA and is in the process of beginning all final restoration to both street and lawn areas.

8. **Suburban Division - Water Main Replacement Program Cycles 1 & 2**

The project consists of the replacement of 2.85 miles of aged and/or failing Cast Iron water main. The Construction phase was approved at the 4/11/16 Board meeting. As of late July 2017 the contractor, Anrich Inc., has completed all punch list item deficiencies. LCA is under discussions with Anrich, Inc. to close out the project **(No Change)**.

9. **Suburban Division – Upper Milford-CLD Interconnection Project (Kohler Tract)**

The project will feature the installation of a new booster pumping station and water main extension to pump water from the Central Lehigh Division (CLD) to the 125-lot Kohler Tract subdivision in Upper Milford Township. We are preparing to make offers to property owners where easements are needed. Design of the pump station is under way and the Public Water Supply (PWS) permit application package was submitted to DEP.

10. **Suburban Division – Pine Lakes Pumping Station Improvements**

This project was originally bid in July 2016 and bids were subsequently rejected due to the lack of competitiveness and significant exceedance of the engineer's estimate. The project was modified and rebid in May 2017 resulting in greater bidder interest and lower prices. The purpose of this project is to upgrade the original hydro-pneumatic well station (built in mid-1970s) to continue the level of service, replace aged and problematic equipment, reduce the probability and consequence of risk, and prolong the useful life of the station. The station is to be upgraded to a double pumping variable speed system with full SCADA telemetry. A pre-construction meeting was held in August and work began in fall 2017 **(No Change)**.

11. **Suburban Division – Asset Management Facility Upgrades**

Project includes the construction of improvements that were identified and prioritized in the Building Condition and Assessment Study prepared by D'Huy Engineering in accordance with LCA's asset management goal. The project scope includes structural, HVAC, and electrical/code improvements to be performed on facilities that were assigned a high risk score (high consequence and probability of failure). Nine (9) water facilities and two (2) wastewater facilities are part of the project scope. The project bids were opened on May 30, and authorization to award was given at the June 26, 2017 Board meeting. Construction is anticipated to be completed by the end of 2017 **(No Change)**.

12. **Suburban Division – Crestwood Alternate Water Supply**

The project consists of abandonment of existing wells and storage tank currently serving higher elevation customers and a connection of the pumping station to the main North Whitehall Division System. The project will also involve installation of a SCADA system. The project bids were opened on July 7 and authorization to award was given at the July 24, 2017 Board

meeting. A pre-construction meeting was held in September. Construction started in October 2017 and will be completed in early 2018.

**13. Suburban Division – Well Abandonments**

The project consists of the abandonment of six wells that are no longer used due to water quality issues: WL4, WL7, NL7, NL8, NL9, and NL10. Authorization to award a professional services agreement to ARRO Consulting Engineers was given at the July 24, 2017 Board meeting. Construction began in September 2017 and is expected to be substantially complete by mid-November.

**14. Suburban Division – 2017 Water Meter Replacement Project**

The project consists of the replacement of approximately 2000 residential meters and 430 commercial meters as well as replacing “non-read meters with new transceiver units. Residential meters which are 20 years and older and commercial meters 15 years and older will be replaced. All meters will be upgraded to the most current radio read capability. The project was approved at the September 25, 2017 Board meeting. Construction is expected to begin in November 2017. **(No Change)**

**15. Suburban Division – Buss Acres Pump Station Replacement**

The project consists of the consolidation and replacement of two well stations with a single new pump station and a new water storage tank to replace two antiquated hydropneumatic pump stations. The new station will be a variable frequency drive controlled double pumping system with full SCADA control. The design will accommodate the future addition of radon removal equipment, to be implemented upon DEP’s mandate of a regulatory limit. Design phase was authorized at the 8/28/17 board meeting, and the project is anticipated to be ready for bidding in Spring 2018. **(No Change)**

**16. Suburban Division – Route 309 Crossing at Sand Spring Road**

This project includes 12” water line installation across Route 309 through a previously installed 24” casing. Completion of this line will bring public water to the property line of Lehigh Carbon Community College and the west side of Route 309. The design phase was completed. PennDot Highway Occupancy Permit has been obtained. An easement agreement was sent to LCCC for their signatures. The project is proposed to be constructed as part of the 2017 Suburban Division main replacement project, via contract change order, in order to take advantage of previously bid unit prices. Authorization for construction phase is to be requested at a later date.

## WASTEWATER

### ACTION ITEMS

---

1. **Suburban Division – Spring Creek Pump Station – November 13, 2017**

This project involves the following upgrades to the existing pumping station: Install a comminutor to reduce buildup of debris on the bar screens and eliminate operational problems, replace the manually operated weir gates with new motorized weir gates to allow for automatic and remote control of the station, and upgrades to the SCADA system. Design of the project is complete and bid opening will be on November 2. Authorization for award of the contracts is to be requested at the November 13, 2017 board meeting.

2. **Wastewater Rules & Regulations – November 13, 2017**

Staff proposes a minor update to the Authority's Rules and Regulations for Water Service to broaden the language relating to how wastewater allocation procedures are applied. Currently the Rules & Regulations specify that these procedures apply to communities connected to the Western Lehigh Interceptor, and no language exists to cover other service areas. This update will ensure consistent application of wastewater allocation procedures across all service areas.

### DISCUSSION ITEMS

---

1. **USEPA Administrative Order - Update – November 13, 2017**

Staff will present a brief update of actions planned through the end of 2017 to comply with the EPA Order Extension on Consent December 31, 2017 deadline for submission of a capital improvements plan to eliminate sanitary sewer overflows.

2. **Industrial Pretreatment Program Overview – November 13, 2017**

The Compliance Department Industrial Waste Manager, Andrew Moore, will be presenting an overview of the EPA Industrial Pretreatment Program and some specifics of the LCA Pretreatment Program.

### INFORMATION ITEMS

---

1. **Allentown Division – Manhole Collars with Water Tight Frame and Covers: Cycle 4**

This project will permanently secure the frame and cover of approximately 10 aged brick manholes identified by current LCA staff. This work will eliminate inflow from entering these manholes and eliminate the potential for sanitary sewer overflows (SSOs) from these manholes. A kick-off meeting has occurred with the City. Board approval for construction was granted at the June 26, 2017 Meeting. Construction began at the end of July 2017 and was completed in early August 2017. The project is identified as Administrative Order and will be funded by the City. This is the final cycle of the project. **(No Change)**

2. **Allentown Division – Wastewater Treatment Plant: Digester Cover Replacements**

This project involves the cover replacement of both the Primary Digester No. 1 and the Secondary Digester (the cover for Primary Digester No. 2 was previously replaced in 2010). A Major Capital Improvement (MCI) Conceptual Design has been approved by the City. Board approval of the construction phase was received at the 2/8/16 Board Meeting. The new Secondary Digester cover was installed in late October 2016 and its construction was completed in late February of 2017. The new Primary No. 1 Digester Cover is also installed and is now fully operational. This Project is identified in the Lease as a Schedule 7 (required) project and was funded by the LCA Allentown Division.

3. **Allentown Division – Wastewater Treatment Plant: WWTP Security Upgrades**

This project involves the installation of security related equipment upgrades at the Kline's Island Wastewater Treatment Plant (WWTP). Enhanced security will further reduce the risk of breaches that may impair the operation of the facility. Board Approval of the CoStars Agreement with Tyco (to purchase the security cameras, doors, etc. upfront) was granted at the January 23, 2017 Board Meeting. Approval of the electrical contractor to install the security equipment was granted at the May 22, 2017 Board Meeting. Construction of the project began in late July of 2017 and will be completed in mid November. This Project is identified as an Uncompleted Work (UW) in the Lease Agreement and will be funded by the City of Allentown.

4. **Allentown Division – Wastewater Treatment Plant: Electrical Substation Replacements**

This project involves the replacement of the existing 12.4 kV Switchgear and existing Substation No. 1 and No. 2. The equipment was installed in 1977 and has reached the end of its useful life. The City has reviewed this and has approved this project as a Major Capital Project. Approval of the design engineer was granted at the May 8, 2017 Board Meeting. Approval of the construction contract is tentatively scheduled to be requested at the January 2018 Board Meeting. Construction of the project is expected to begin in March of 2018 and be completed by early 2019. This Major Capital Project will be funded by the LCA Allentown Division.

5. **Allentown Division – Wastewater Treatment Plant: Miscellaneous Improvements**

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. An emergency declaration was declared to reduce the installation time by several weeks. A request for a retroactive emergency declaration was requested and approved at the January 9, 2017 Board meeting. The drive was installed in April 2017 and is now fully operational. The remaining 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 in late 2017. Construction approval was granted at the August 28, 2017 Board meeting. Construction should be completed by 1Q 2018. This capital project will be funded by the LCA Allentown Division. **(No Change)**

6. **Allentown Division – Kline's Island WWTP Phase 1 AO Design Improvements**

This project includes the design of the AO improvements at the wastewater treatment plant. This conceptual design concept was approved by the City and the relevant final deliverables were received by LCA. The City then directed LCA to proceed with the final design of improvements related to the blending alternative. Board approval for the Professional Services Authorization with Kleinfelder East, Inc. was granted at the September 11, 2017 Board Meeting. The project is identified as Administrative Order Work and will be funded by the City. Construction is expected to begin in early 2019 and is expected to be complete in early 2021, subject to regulatory review and approval.

7. **Suburban Division – Test & Seal Project, Western Lehigh Interceptor Service Area**

Project consists of sanitary sewer cleaning, inspections via CCTV, cured-in-place point repairs, pressure testing and chemical grout sealing of joints, and post construction inspection for sanitary sewer lines located in western and central Lehigh County previously identified as areas subject to leakage. This project is part of the SCARP program. Construction began in August 2016 and is expected to finish by the end of Summer 2017; additional scope work is being completed by Fall 2017. **(No Change)**

8. **Suburban Division – Lynn Township WWTP Improvements, Phases 1 & 2**

This project will upgrade the wastewater treatment plant (WWTP) headworks to install a mechanical fine screen, in order to protect the influent pumps and mitigate rag buildup. The

project is funded by the Lynn Township Suburban Division. The contractor has installed the meter vault. Delivery of the mechanical screen is anticipated in early November.

9. **Suburban Division – SCARP**

The City is no longer pursuing the execution of a MOU amount the City and the City Signatories. LCA discussed this with the City and provided items that still need to be addressed for City AO Phase 1 project. The City developed a letter of acknowledgment and provided it to all the City Signatories for review. Four City Signatories have presented a revised acknowledgement that is being considered by the City and LCA.

The MOC for LCA and the LCA Signatories went through a final review by the Solicitors. It is not known at this time what the final version of the MOU will be.

Arcadis has drafted the EPA Implementation Plan and it is being reviewed by the LCA AO Attorney, Signatory Managers, and LCA staff.

An update on the status of the acknowledgement, MOC, and Implementation Plan will be provided to the Board in November.

10. **Suburban Division – Park Pump Station Upgrade Design**

The Park Pump Station is to be upgraded to address station capacity and age/condition issues, and prolong the service life of this critical facility. The existing pumps are to be replaced with dry pit submersible units, existing motors are to be replaced with high efficiency units, and the old rheostat type motor drives are to be replaced with variable speed drives. The MCC is also to be replaced along with miscellaneous mechanical improvements. The DEP Part 2 Water Quality Management Permit application was submitted to DEP in June 2017, and approved on 9/27/17. Design is substantially complete and bid phase is anticipated to begin late 2017. **(No Change)**

11. **Suburban Division – Tank Painting Project – Heidelberg Heights Wastewater Treatment Plant**

This project is part of LCA's Asset Management Program and involves the draining, cleaning, surface preparation, and painting of the interior and exterior Sequencing Batch Reactor tanks at the Heidelberg Heights wastewater treatment plant. The exposed tanks are 16 years old and require recoating to prevent degradation from the corrosive effects of wastewater and wastewater gases, and the environment. Bids were opened in May and the project was authorized for award at the June 12, 2017 board meeting. Construction is anticipated to finish by November 2017. **(No change)**