

EXHIBIT "A"

APPENDIX BE (AS AMENDED AND RESTATED SEPTEMBER 22, 2016)

SURCHARGE COST PER POUND FOR TREATMENT OF B.O.D., T.S.S., TP, and TN

THE FOLLOWING SURCHARGE COST PER POUND FOR THE YEARLY OPERATING EXPENDITURES DIRECTLY RELATED TO THE TREATMENT OF B.O.D., T.S.S., TP, AND TN WILL BECOME EFFECTIVE SEPTEMBER 22, 2016 AND WILL REMAIN IN EFFECT UNTIL NEW RATES ARE APPROVED BASED ON AUDITED EXPENDITURES FOR FISCAL YEAR 2016-17.

THE ATTACHED TABLES 1 - 4 DETAIL THE FACTORS AND EXPENDITURES WHICH WERE UTILIZED TO DERIVE THE COST PER POUND VALUES.

Surcharge Rates Per Pound

	BOD	TSS	TP	TN
Operating Costs (1)	\$2,073,113.81	\$2,098,385.61	\$490,602.60	\$1,919,871.69
Loadings (2)	5,874,529	7,751,921	129,058	1,158,207
cost/lb	\$0.35	\$0.27	\$3.80	\$1.66
Capacity cost/lb (3)				\$2.14
Total cost/lb	\$0.35	\$0.27	\$3.80	\$3.80

Note1 - From Table 3 - Operations and Maintenance Costs

Note 2 - From Table 2 - Organic Loadings

Note 3 - From Table 4 - Capacity Cost Per Pound of Nitrogen

LANCASTER AREA SEWER AUTHORITY

SUSQUEHANNA WATER POLLUTION CONTROL PLANT
INDUSTIAL WASTE SURCHARGE ANALYSIS

TABLE 1
ALLOCATION OF UNIT PROCESS CAPACITY TO TREATMENT OF POLLUTANTS

Description	Allocation of Pollutant Percentage				
	Flow	BOD	TSS	TP	TN
Preliminary	67%	10%	15%	5%	3%
Primary	6%	40%	50%	2%	2%
Activated Sludge	5%	44%	1%	10%	40%
Final Clarifier	3%	32%	60%	4%	1%
Disinfection	86%	2%	6%	3%	3%
Solids	4%	21%	31%	7%	37%

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SUSQUEHANNA WATER POLLUTION CONTROL PLANT

TABLE 2
ORGANIC LOADINGS FOR PERIOD APRIL 1, 2015 - MARCH 31, 2016

LASA 2015-16 Monthly Pollutant Averages				
	BOD	TSS	TP	TN
Month	lbs	lbs	lbs	lbs
April	16,926	19,919	389.5	3,437.1
May	16,369	20,120	381.2	3,102.3
June	15,414	22,169	379	3,335.9
July	14,457	19,308	355	3,036.2
August	17,483	20,850	358.9	3,032.1
September	16,739	20,951	359.3	2,892.3
October	14,959	19,453	340.9	2,928.6
November	16,134	22,737	335.2	3,125.1
December	17,104	22,448	354.7	3,170.5
January	14,982	20,894	322.1	3,102.6
February	16,514	24,336	347.9	3,242.7
March	15,589	21,214	309.1	3,577.9
Annual	5,874,529	7,751,921	129,058	1,158,207

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COST OF OPERATION DETAIL FOR YEAR ENDING MARCH 31, 2016

TABLE 3
OPERATIONS AND MAINTENANCE COSTS (1)

Description	Total \$	BOD	TSS	TP	TN
Preliminary	\$756,907.23	\$75,690.72	\$113,536.08	\$37,845.36	\$22,707.22
Primary	\$766,787.45	\$306,714.98	\$383,393.72	\$15,335.75	\$15,335.75
Activated Sludge	\$1,594,071.04	\$701,391.26	\$15,940.71	\$159,407.10	\$637,628.42
Final Clarifier	\$897,543.72	\$287,213.99	\$538,526.23	\$35,901.75	\$8,975.44
Disinfection	\$346,214.80	\$6,924.30	\$20,772.89	\$10,386.44	\$10,386.44
Solids	\$3,310,374.11	\$695,178.56	\$1,026,215.98	\$231,726.19	\$1,224,838.42
Total	\$7,671,898.35	\$2,073,113.81	\$2,098,385.61	\$490,602.60	\$1,919,871.69

Note 1 - Treatment costs, including labor, materials, overhead, and debt service, are charged as cost centers to each of the various treatment processes shown

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CAPACITY COST PER POUND OF NITROGEN FOR YEAR ENDED MARCH 31, 2016

TABLE 4
CAPACITY COST PER POUND OF NITROGEN

Total Capacity/gallon		\$6.77
Baseline nitrogen		40 mg/l
Pounds of nitrogen per gallon		0.0003336
Capacity cost per pound of nitrogen	\$	20,287.28
Weighted average life expectancy of treatment plant assets		26 years
Cost per day per pound of nitrogen	\$	<u>2.14</u>