

**EASTON AREA JOINT SEWER AUTHORITY
COMMONWEALTH OF PENNSYLVANIA**

RESOLUTION #2021-06-21 *A*

**RESOLUTION APPROVING AN UPDATED
HIGH STRENGTH WASTE SURCHARGE FEE**

WHEREAS, the Easton Area Joint Sewer Authority (the "Authority") is a body corporate and politic organized and operated under the provisions of the Pennsylvania Municipality Authorities Act, 53 Pa. C.S. §5601 et seq., as amended (the "Act");

WHEREAS, the Authority imposes a high strength waste surcharge fee, using a method consisting of a combination of capital basis treatment cost allocations and functional treatment costs allocation;

WHEREAS, the Authority Board reviews and updates the high strength waste surcharge fee from time to time based on the Authority's annual audit, Chapter 94 Report, sewage treatment costs data, the evaluation by the Authority's Consulting Engineer and recommendation of the Authority's Engineering Committee; and

WHEREAS, based on the forgoing, the Authority Board has determined that an update to the current high strength waste surcharge fee is necessary and appropriate.

NOW, THEREFORE, BE IT RESOLVED by the Board of the Easton Area Join Sewer Authority as follows:

1. The Authority's high strength waste surcharge fee shall be determined, where appropriate, by using the attached Table I - 2019 Allocation of Operation and Maintenance and Capital Costs and the attached Table II - Surcharge Program Cost Update Based on 2019 Data which includes the updated surcharge formula.

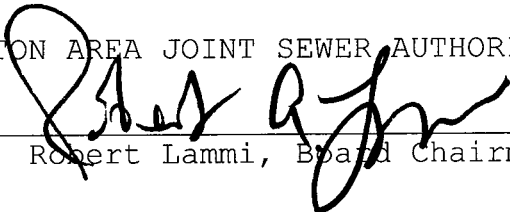
2. The updated high strength waste surcharge fee shall be effective July 1, 2021.


3. All Resolutions or parts of Resolutions inconsistent with this Resolution are hereby repealed insofar, but only insofar, as the same are inconsistent herewith.

4. If any section, subsection, sentence, clause or phrase of this Resolution is, for any reason, held to be illegal or unconstitutional, such decision shall not affect the validity of the remaining portions of this Resolution.

ADOPTED this 21st day of June, 2021.

EASTON AREA JOINT SEWER AUTHORITY

By: 
Robert Lammi, Board Chairman


Stephen Riegel, Secretary

(SEAL)

TABLE I
TO RESOLUTION

2019 Allocation of Operation and Maintenance and Capital Costs

(attached hereto)

**TABLE I
EASTON AREA JOINT SEWER AUTHORITY - SURCHARGE PROGRAM COSTS FOR YEAR 2019
ALLOCATION OF OPERATION & MAINTENANCE (O & M) AND CAPITAL COSTS**

ITEM	Actual 2019		Hydraulic Loading		BOD		Suspended Solids		NH3-N	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
ANNUAL O & M COST ALLOCATION										
Directly Allocable Costs										
Salaries/Wages	\$1,412,157.00	30.0	\$423,647	25.0	\$353,039	25.0	\$353,039	20.0	\$282,431	20.0
Health, Disability, Workers Comp, Other Benefits	\$423,125.00	30.0	\$126,938	25.0	\$105,781	25.0	\$105,781	20.0	\$84,625	20.0
Social Security	\$106,671.00	30.0	\$32,001	25.0	\$26,668	25.0	\$26,668	20.0	\$21,334	20.0
Pension Contributions	\$230,474.00	30.0	\$69,142	25.0	\$57,619	25.0	\$57,619	20.0	\$46,095	20.0
Training and Dues	\$5,255.00	30.0	\$1,577	25.0	\$1,314	25.0	\$1,314	20.0	\$1,051	20.0
Office and Safety Supplies	\$4,981.00	30.0	\$1,494	25.0	\$1,245	25.0	\$1,245	20.0	\$996	20.0
Laboratory and Other Supplies	\$15,207.00	30.0	\$4,562	25.0	\$3,802	25.0	\$3,802	20.0	\$3,041	20.0
Heating Fuel	\$18,489.00	30.0	\$5,547	25.0	\$4,622	25.0	\$4,622	20.0	\$3,698	20.0
Vehicle Fuel and Maintenance	\$11,115.00	30.0	\$3,335	25.0	\$2,779	25.0	\$2,779	20.0	\$2,223	20.0
Clothing and Uniforms	\$9,567.00	30.0	\$2,870	25.0	\$2,392	25.0	\$2,392	20.0	\$1,913	20.0
Auditing Services	\$10,900.00	30.0	\$3,270	25.0	\$2,725	25.0	\$2,725	20.0	\$2,180	20.0
Computer and Data Contracted Services	\$14,858.00	30.0	\$4,457	25.0	\$3,715	25.0	\$3,715	20.0	\$2,972	20.0
Telephone	\$41,858.00	30.0	\$12,557	25.0	\$10,465	25.0	\$10,465	20.0	\$8,372	20.0
Engineering Services - Contract Lab	\$202,464.00	30.0	\$60,739	25.0	\$50,616	25.0	\$50,616	20.0	\$40,493	20.0
Indirect Costs	\$499,371.00	30.0	\$149,811	25.0	\$124,843	25.0	\$124,843	20.0	\$99,874	20.0
Repairs and Maintenance	\$464,117.00	30.0	\$139,235	25.0	\$116,029	25.0	\$116,029	20.0	\$92,823	20.0
Machinery Costs	\$68,259.00	30.0	\$20,478	25.0	\$17,065	25.0	\$17,065	20.0	\$13,652	20.0
Insurances - Property, Casualty	\$204,000.00	30.0	\$61,200	25.0	\$51,000	25.0	\$51,000	20.0	\$40,800	20.0
Electricity	\$490,971.00	40.0	\$196,388	25.0	\$122,743	15.0	\$73,646	20.0	\$98,194	20.0
Water	\$49,739.00	30.0	\$14,922	25.0	\$12,435	25.0	\$12,435	20.0	\$9,948	20.0
Solid Waste	\$350,129.00	15.0	\$52,519	30.0	\$105,039	50.0	\$175,065	5.0	\$17,506	5.0
Chemicals	\$803,334.00	40.0	\$321,334	0.0	\$0	40.0	\$321,334	20.0	\$160,667	20.0
Subtotal - Directly Allocable Costs	\$5,437,041.00	31.4	\$1,708,023.45	21.6	\$1,175,933.20	27.9	\$1,518,195.50	19.0	\$1,034,888.85	

**TABLE I
EASTON AREA JOINT SEWER AUTHORITY - SURCHARGE PROGRAM COSTS FOR YEAR 2019
ALLOCATION OF OPERATION & MAINTENANCE (O & M) AND CAPITAL COSTS (Continued)**

Item	Actual 2019		Hydraulic Loading		BOD		Suspended Solids		NH3-N	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
Solicitor Services/Outside Legal	\$28,710.00	31.4	\$9,019	21.6	\$6,209	27.9	\$8,017	19.0	\$5,465	19.0
Board/Officer Compensation	\$11,700.00	31.4	\$3,676	21.6	\$2,530	27.9	\$3,267	19.0	\$2,227	19.0
Administrative/Recording Secretary	\$24,298.00	31.4	\$7,633	21.6	\$5,255	27.9	\$6,785	19.0	\$4,625	19.0
Auditor / CPA	\$14,750.00	31.4	\$4,634	21.6	\$3,190	27.9	\$4,119	19.0	\$2,808	19.0
Accountant	\$21,718.00	31.4	\$6,823	21.6	\$4,697	27.9	\$6,064	19.0	\$4,134	19.0
Administrative, Meeting, Office	\$32,138.00	31.4	\$10,096	21.6	\$6,951	27.9	\$8,974	19.0	\$6,117	19.0
Pringe Benefits	\$2,509.00	31.4	\$788	21.6	\$543	27.9	\$701	19.0	\$478	19.0
Consulting Engineer- General Services	\$67,809.00	31.4	\$21,302	21.6	\$14,666	27.9	\$18,934	19.0	\$12,907	19.0
Consulting Engineer- Pretreatment Services	\$35,157.00	31.4	\$11,044	21.6	\$7,604	27.9	\$9,817	19.0	\$6,692	19.0
Vehicle Expense	\$0.00	31.4	\$0	21.6	\$0	27.9	\$0	19.0	\$0	19.0
Pretreatment Coordinator	\$0.00	31.4	\$0	21.6	\$0	27.9	\$0	19.0	\$0	19.0
Contract Lab Services	\$86,072.00	31.4	\$27,039	21.6	\$18,616	27.9	\$24,034	19.0	\$16,383	19.0
Liability Insurance	\$20,426.00	31.4	\$6,417	21.6	\$4,418	27.9	\$5,704	19.0	\$3,888	19.0
Debt Service - Bonds	\$1,854,918.00	31.4	\$582,715	21.6	\$401,185	27.9	\$517,952	19.0	\$353,066	19.0
Contingencies	\$18,048.00	31.4	\$5,670	21.6	\$3,903	27.9	\$5,040	19.0	\$3,435	19.0
Capital Costs	\$275,860.00	31.4	\$86,660	21.6	\$59,664	27.9	\$77,029	19.0	\$52,507	19.0
Permits and Licensing	\$11,941.00	31.4	\$3,751	21.6	\$2,583	27.9	\$3,334	19.0	\$2,273	19.0
Subtotal - Indirectly Allocable Costs	\$2,506,054.00	31.4	\$787,266.27	21.6	\$542,013.96	27.9	\$699,770.32	19.0	\$477,003.46	19.0

**TABLE I
EASTON AREA JOINT SEWER AUTHORITY - SURCHARGE PROGRAM COSTS FOR YEAR 2019
ALLOCATION OF OPERATION & MAINTENANCE (O & M) AND CAPITAL COSTS (Continued)**

Item	Actual 2019	Hydraulic Loading		BOD		Suspended Solids		NH3-N	
		%	Amount	%	Amount	%	Amount	%	Amount
CAPITAL COST ALLOCATION									
1988 Directly Allocable Costs									
Aerobic Digester 1	\$483,471.50	0.0	\$0	30.0	\$145,041	40.0	\$193,389	30.0	\$145,041
Blower Building	\$279,473.00	0.0	\$0	30.0	\$83,842	40.0	\$111,789	30.0	\$83,842
Secondary Clarifiers 5, 6 & 7	\$974,725.70	25.0	\$243,681	25.0	\$243,681	25.0	\$243,681	25.0	\$243,681
Flow Division Box 2 & 3	\$225,039.25	20.0	\$45,008	30.0	\$67,512	20.0	\$45,008	30.0	\$67,512
Secondary Sludge Wet Well	\$74,239.05	10.0	\$7,424	30.0	\$22,272	20.0	\$14,848	40.0	\$29,696
Chlorine Building	\$107,190.25	90.0	\$96,471	5.0	\$5,360	0.0	\$0	5.0	\$5,360
Sludge Dewatering	\$1,141,852.00	0.0	\$0	0.0	\$0	100.0	\$1,141,852	0.0	\$0
Oxidation Ditch 1	\$3,216,284.95	10.0	\$321,628	30.0	\$964,885	10.0	\$321,628	50.0	\$1,608,142
Sludge Pump House	\$201,838.00	10.0	\$20,184	30.0	\$60,551	20.0	\$40,368	40.0	\$80,735
Sludge Sump and Valve Pits	\$63,595.35	0.0	\$0	0.0	\$0	100.0	\$63,595	0.0	\$0
1998 & 2002 thru 2019 Directly Allocable Costs									
Influent Screen Building	\$410,800.00	30.0	\$123,240	30.0	\$123,240	40.0	\$164,320	0.0	\$0
Upgrade Digester No. 1	\$37,539.41	0.0	\$0	30.0	\$11,262	40.0	\$15,016	30.0	\$11,262
Primary Sludge Pump Station	\$242,714.56	25.0	\$60,679	25.0	\$60,679	25.0	\$60,679	25.0	\$60,679
Upgrade Digester No. 2	\$345,357.00	20.0	\$69,071	30.0	\$103,607	20.0	\$69,071	30.0	\$103,607
Digester Boiler Building	\$422,321.16	0.0	\$0	0.0	\$0	80.0	\$337,857	20.0	\$84,464
Secondary Sludge Dewatering	\$110,484.00	10.0	\$11,048	30.0	\$33,145	20.0	\$22,097	40.0	\$44,194
SCADA System	\$904,996.00	25.0	\$226,249	25.0	\$226,249	25.0	\$226,249	25.0	\$226,249
Grit System	\$749,418.00	0.0	\$0	10.0	\$74,942	90.0	\$674,476	0.0	\$0
Anaerobic Conveyor System	\$148,850.00	0.0	\$0	0.0	\$0	75.0	\$111,638	25.0	\$37,213
Anaerobic Digester No. 1 Rehab	\$906,473.70	0.0	\$0	0.0	\$0	75.0	\$679,855	25.0	\$226,618
Primary Clarifier Project	\$1,098,727.09	0.0	\$0	15.0	\$164,809	85.0	\$933,918	0.0	\$0
Chlorine Contact Tank Project	\$218,000.00	100.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
Digester Gas System Upgrades	\$671,768.50	0.0	\$0	10.0	\$67,177	80.0	\$537,415	10.0	\$67,177
Centrifuge System	\$1,851,912.95	0.0	\$0	0.0	\$0	100.0	\$1,851,913	0.0	\$0
Oxidation Ditch Improvements	\$653,386.00	50.0	\$326,693	25.0	\$163,347	0.0	\$0	25.0	\$163,347
Digester No. 2 and Return Lift Station	\$1,121,678.59	40.0	\$448,671	10.0	\$112,168	40.0	\$448,671	10.0	\$112,168
WWTP Equipment Upgrade Project	\$1,853,381.13	60.0	\$1,112,029	10.0	\$185,338	20.0	\$370,676	10.0	\$185,338
Wastewater Pumping Station Upgrades	\$6,079,207.89	100.0	\$6,079,208	0.0	\$0	0.0	\$0	0.0	\$0
Subtotal - Directly Allocable Costs	\$24,594,725.03	37.4	\$9,191,285	11.9	\$2,919,107	35.3	\$8,680,009	14.6	\$3,586,324

**TABLE I
EASTON AREA JOINT SEWER AUTHORITY - SURCHARGE PROGRAM COSTS FOR YEAR 2019
ALLOCATION OF OPERATION & MAINTENANCE (O & M) AND CAPITAL COSTS (Continued)**

Item	Actual 2019		Hydraulic Loading		BOD		Suspended Solids		NH3-N	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
1988 Indirectly Allocable Costs										
Mobilization	\$63,013.40	37.4	\$23,549	11.9	\$7,479	35.3	\$22,239	14.6	\$9,188	
Sitework	\$919,584.85	37.4	\$343,658	11.9	\$109,144	35.3	\$324,541	14.6	\$134,091	
Control Building & Lab Addition	\$231,488.25	37.4	\$86,509	11.9	\$27,475	35.3	\$81,697	14.6	\$33,755	
Retaining Wall	\$64,630.25	37.4	\$24,153	11.9	\$7,671	35.3	\$22,809	14.6	\$9,424	
New Garage	\$249,331.50	37.4	\$93,178	11.9	\$29,593	35.3	\$87,994	14.6	\$36,357	
Underground Piping	\$1,039,060.00	37.4	\$388,307	11.9	\$123,324	35.3	\$366,707	14.6	\$151,512	
Electrical Contract 5	\$562,491.70	37.4	\$210,209	11.9	\$66,761	35.3	\$198,515	14.6	\$82,021	
Plumbing Contract 6	\$91,030.00	37.4	\$34,019	11.9	\$10,804	35.3	\$32,126	14.6	\$13,274	
HVAC Contract 7	\$130,830.00	37.4	\$48,892	11.9	\$15,528	35.3	\$46,173	14.6	\$19,077	
Administrative Costs	\$1,898,505.00	37.4	\$709,490	11.9	\$225,330	35.3	\$670,023	14.6	\$276,834	
1998 & 2002 thru 2019 Indirectly Allocable Costs										
Mobilization	\$68,207.00	37.4	\$25,490	11.9	\$8,095	35.3	\$24,072	14.6	\$9,946	
Sitework	\$97,000.00	37.4	\$36,250	11.9	\$11,513	35.3	\$34,233	14.6	\$14,144	
Underground Piping	\$95,700.00	37.4	\$35,764	11.9	\$11,358	35.3	\$33,775	14.6	\$13,955	
Electrical Contract	\$1,460,935.52	37.4	\$545,966	11.9	\$173,396	35.3	\$515,596	14.6	\$213,029	
HVAC Contract	\$61,294.00	37.4	\$22,906	11.9	\$7,275	35.3	\$21,632	14.6	\$8,938	
Sludge Cover	\$74,400.00	0.0	\$0	0.0	\$0	80.0	\$59,520	20.0	\$14,880	
Digester Stairs	\$9,675.00	0.0	\$0	0.0	\$0	80.0	\$7,740	20.0	\$1,935	
Maintenance Shop	\$61,200.00	25.0	\$15,300	25.0	\$0	80.0	\$15,300	25.0	\$15,300	
Aeration Basin Coating	\$106,908.00	0.0	\$0	0.0	\$0	80.0	\$85,526	20.0	\$21,382	
Grit System	\$121,965.00	0.0	\$0	10.0	\$12,197	90.0	\$109,769	0.0	\$0	
Sludge Conveyor System	\$7,230.00	0.0	\$0	0.0	\$0	75.0	\$5,423	25.0	\$1,808	
Anerobic Digester No. 1 Rehab	\$115,708.00	0.0	\$0	0.0	\$0	75.0	\$86,781	25.0	\$28,927	
Administrative Cost	\$1,286,722.00	37.4	\$480,860	11.9	\$152,719	35.3	\$454,112	14.6	\$187,626	
Subtotal - Indirectly Allocable Costs	\$8,816,909.47	37.4	\$3,124,498.00	11.9	\$1,014,962.38	35.3	\$3,306,303.66	14.6	\$1,297,401.10	
Annual O & M Costs										
Directly Allocable Costs	\$5,437,041.00		\$1,708,023.45		\$1,175,933.20		\$1,518,195.50		\$1,034,888.85	
Indirectly Allocable Costs	\$2,506,054.00		\$787,266		\$542,014		\$699,770		\$477,003	
Total Annual O & M Costs	\$7,943,095		\$2,495,290		\$1,717,947		\$2,217,966		\$1,511,892	
Capital Costs										
Directly Allocable Costs	\$24,594,725.03		\$9,191,285		\$2,919,107		\$8,680,009		\$3,586,324	
Indirectly Allocable Costs	\$8,816,909.47		\$3,124,498		\$1,014,962		\$3,306,304		\$1,297,401	
Total Capital Costs	\$33,411,634.50		\$12,315,783		\$3,934,069		\$11,986,313		\$4,883,725	

TABLE II
TO RESOLUTION

Surcharge Program Cost Update Based on 2019 Data

(attached hereto)

**TABLE II
EASTON AREA JOINT SEWER AUTHORITY
SURCHARGE PROGRAM COST UPDATE BASED ON 2019 DATA**

EXPENDITURE ⁽¹⁾	BOD-5	TSS	NH3-N
- Annual Operational Cost	\$1,717,947	\$2,217,966	\$1,511,892
- Capital Amortization ⁽²⁾	252,359	768,888	313,277
TOTAL	\$1,970,306	\$2,986,853	\$1,825,169

2019 AVERAGE DAILY VALUES FOR:

Plant Flow	=	6.26 MGD
BOD-5 Influent	=	281 mg/l
TSS Influent	=	242 mg/l
NH3-N Influent	=	33 mg/l

2019 ANNUAL PLANT LOADINGS FOR:

BOD-5	=	281 mg/l	x 8.34 x 6.26 x 365	=	5,355	x 10x3 lbs./year
TSS	=	242 mg/l	x 8.34 x 6.26 x 365	=	4,612	x 10x3 lbs./year
NH3-N	=	33 mg/l	x 8.34 x 6.26 x 365	=	629	x 10x3 lbs./year

2019 TREATMENT COSTS FOR:

BOD-5	=	\$1,970,306	/	5,355	10x3 lbs./year	=	\$367.95	/10x3 lbs.
TSS	=	\$2,986,853	/	4,612	10x3 lbs./year	=	\$647.69	/10x3 lbs.
NH3-N	=	\$1,825,169	/	629	10x3 lbs./year	=	\$2,902.39	/10x3 lbs.

UPDATED SURCHARGE FORMULA (SF) ⁽³⁾	=	$0.00834 \times Q1 \times [(BOD-5 - 250) \times \$367.95 + (TSS - 250) \times \$647.69 + (NH3-N - 25) \times \$2,902.39]$
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WHERE:

- SF is the surcharge amount when concentrations for BOD-5, TSS and NH3-N exceed normal domestic levels listed below.
- The factor "0.00834" is a constant to convert concentration expressed as mg/l to 10x3 pounds per million gallons.
- Q1 is the industrial users wastewater volume for the time period, expressed in million gallons.
- BOD-5, TSS and NH3-N represent respectively, five-day biological oxygen demand, total suspended solids and ammonia-nitrogen with all concentrations expressed in mg/l.
- The values 250, 250 and 25 are constants which express the waste load concentration of BOD-5, TSS and NH3-N, respectively, determined to be normal values for domestic sewage.

(1) See Table I for the development of the cost factors for the three conventional pollutants.

(2) This cost represents the amount necessary to recover the total capital cost allocation over a twenty-year period at two and a half percent interest per year.

(3) If BOD-5 values are less than 250 mg/l, TSS values are less than 250 mg/l or NH3-N values are less than 25 mg/l, any negative values calculated are set equal to zero and not considered as part of this equation.