

December 17, 2021

To the Joint Meeting

Ladies and Gentlemen:

ANNUAL REPORT OF THE SEWAGE CONTRIBUTION
OF THE MUNICIPALITIES ORGANIZED IN
JOINT MEETING FOR THE PURPOSE OF
ASSESSMENT FOR THE YEAR 2022

I present herewith the 87th Annual Report for the eleven municipalities organized in Joint Meeting, covering their respective contribution to Section One of the Supplementary Joint Trunk Sewer and to the Treatment Plant, as called for under the terms of the 1926 Contract.

Article X of the 1926 Contract requires that an estimate be made for the purpose of assessing the costs of maintenance and operation each year.

In order that the amount of work necessary for the preparation of this estimate be completed in time for consideration by the Joint Meeting before the date specified by law for the adoption of the new budget, it has been customary to use the twelve-month period immediately prior thereto as the basis of consideration for the assessment purpose only.

You will please note that this is the first of the two Annual Reports prepared each year, and that it covers the twelve-month period from November 1, 2020 through October 31, 2021. Subsequently, at the beginning of each succeeding year, a second and final report is prepared covering the previously completed calendar year, which coincides with the fiscal year of the Joint Meeting.

Pursuant to the Federal Water Pollution Control Act Amendments of 1972, PL 92-500 and as a requirement of our Construction Grant for the expansion in Secondary Treatment, a "User Charge System" is used to apportion the operation and maintenance costs for the Joint Meeting for 2022. During the year 1978, a User Charge System was prepared and adopted by the member municipalities and is entitled "An Ordinance Establishing and Defining User Charges in Connection with the Collection and Treatment of Wastewater and Providing for the Payment of Said User Charges". During the year 2021, this "User Charge System" was utilized by the various municipalities for collection of the charges associated with the operation and maintenance of the trunk sewer system, the treatment plant, and the Sludge Dewatering Facility, the percentage of assessment based upon a report dated December 18, 2020.

During 2021, the various municipalities computed the actual dwelling units for each of their respective towns in accordance with the revised schedule included in the Sewer Use Ordinance. Table II depicts the new (2022) dwelling unit figures formulated by each municipality in 2021.

It should be noted that the methodology used to assess the City of Elizabeth for services rendered by the Joint Meeting is based on quantity and quality of sewage as measured at the Trenton Avenue Pumping Station, plus the Equivalent Dwelling Units (EDU's) tributary to the gravity Joint Meeting sewer through the Elmora Avenue Area in Elizabeth, plus the tributary area from the City of Linden. This methodology was approved by the Joint Meeting and the Elizabeth City Council. The percentage used in this assessment report for the City will be based upon a twelve (12) month, 365 day period of November 1, 2020, through October 31, 2021 and projected for a twelve (12) month period in 2022. This allocation will be assessed and paid in accordance with the member municipalities billing procedure. Then, based on the analysis of the samples taken at the Trenton Avenue Pumping Station, an adjustment is made (on a quarterly basis) to the percent allocation from the City. At the end of 2022, utilizing twelve (12) months of data, the actual percent contribution by the City will be calculated and certified thereto.

The accompanying computations include the total Dwelling Unit number of 47,181 for the City. (This Equivalent Dwelling Unit number was computed by Elson T. Killam Associates during the period November 8, 1979 and December 12, 1979 and revised by the City Engineer on February 9, 1982).

USER CHARGE APPORTIONMENT

Set forth below are the basis factors concerning flow, waste characteristics and projected cost of operations of the Facilities derived for the 365 day period from November 1, 2020, through October 31, 2021, and projected for 2022 and are based upon actual 2020-2021 operating statistics as well as a recent upgraded 2021 industrial waste survey. The industrial waste figures take into consideration actual yearly operational time for each industry (i.e., 5 day or 7 day working week, etc.).

1.	Flow	22,068.8220 MG/Year	60.4625 MGD
2.	BOD	18,809.4486 Tons/Year	103,065.4718 Lbs/Day
	TSS	15,363.9159 Tons/Year	84,185.8405 Lbs/Day
3.	Estimated Industrial Flow	548.1620 MG/Year	1.5018 MGD
4.	Estimated Industrial BOD	4,814.7794 Tons/Year	26,382.3526 Lbs/Day
5.	Estimated Industrial TSS	574.1664 Tons/Year	3,146.1175 Lbs/Day
6.	Estimated Total Operating Expenses in 2022		
			\$27,001,748 STP
			9,532,045 SDWF
			312,326 SDF
			1,608,881 Sewers
			<u>\$38,455,000</u> Total
7.	Estimated Total Dwelling Units in System		
			149,772 JM Members
			<u>47,181</u> Elizabeth
			196,953 Total

In addition to the foregoing, it has been determined that the following cost allocations would fairly represent the actual costs of treatment.

Flow	33.8698968%
BOD	43.7835521%
Suspended Solids	22.3465511%

The basis for these cost allocations is set forth in Appendix A.

Based upon the foregoing allocations, Table I has been prepared which shows the projected and estimated flow and waste characteristics for 2022 and the projected estimated cost allocation between domestic sewage treated from residential and commercial establishments, and the industrial waste treatment reflecting industrial flow from industries in the collection system. This system takes into consideration the fact that the City of Elizabeth does not use the trunk sewer and will accordingly not be charged for its use. The trunk sewer charge is assessed only against member municipalities, and their respective industries.

Table I
Joint Meeting of Essex & Union Counties
Estimated Flow Waste Characteristics and Cost Allocation for Treatment in 2022

Treatment Plant

	<u>Total for 2022</u>		<u>Domestic & Commercial</u>		<u>Industrial</u>	
Flow	22,068.8220	MG/Yr. ¹	21,520.6600	MG/Yr.	548.1620	MG/Yr.
BOD	18,809.4486	Tons/Yr. ¹	13,994.6693	Tons/Yr.	4,814.7794	Tons/Yr.
Suspended Solids	15,363.9159	Tons/Yr. ¹	14,789.7495	Tons/Yr.	574.1664	Tons/Yr.

(1) Based upon data from November 1, 2020 thru October 31, 2021 (365 days)

Cost Allocation

	<u>Total for 2022</u>		<u>Domestic & Commercial</u>		<u>Industrial</u>
Flow	\$12,478,049.00		\$12,168,110.00		\$309,939.00
BOD	16,130,350.50		12,001,358.00		4,128,992.50
Suspended Solids	8,232,719.50		7,925,054.00		307,665.50
	<u>\$36,841,119.00</u>		<u>\$32,094,522.00</u>		<u>\$4,746,597.00</u>
	100.000000%		87.11603470%		12.88396530%

Elizabeth Contribution

Flow	-	5,734.6320	MG/Yr.
BOD	-	7,044.3243	Tons/Yr.
TSS	-	3,474.7707	Tons/Yr.

Trunk Sewer Flow ¹

	<u>Total for 2022</u>		<u>Domestic & Commercial</u>		<u>Industrial</u>	
	16,334.1900	MG/Yr. ²	15,952.5540	MG/Yr.	381.636	MG/Yr.

(1) Based upon data from November 1, 2020 thru October 31, 2021 (365 days)

(2) (22,068.822 - 5,734.6320)

COST ALLOCATION

\$1,608,881.00	\$1,571,290.71	\$37,590.29
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Member municipalities will be assessed \$10.49 (\$1,571,290.71/149,772) for trunk sewer O&M per equivalent dwelling unit.

The estimated cost for treating industrial wastes has been determined to be \$565.42 per MG for flow, \$857.57 per ton of BOD, and \$535.85 per ton of suspended solids. These estimates are predicated upon the cost allocation to industry and the estimates of flow and strength characteristics of the industrial waste, all as indicated on Table I. These costs were determined as follows:

Flow	\$309,939.00	/	548.1620	=	\$565.4149686	/MG
BOD	\$4,128,992.50	/	4,814.7794	=	\$857.5662974	/Ton
Suspended Solids	\$307,665.50	/	574.1664	=	\$535.8472362	/Ton

All industries within the member municipalities (excluding Elizabeth) will be required to pay an additional \$98.50/MG of flow for trunk sewer use (\$37,590.29/381.636 = \$98.498/MG). This brings the total flow cost to \$663.91/MG (\$565.415 + \$98.498) for the indicated industries of member municipalities.

Based upon the user charges for 2022, a computation has been made to show the budget prepayment for each municipality of the Joint Meeting. These estimates are subject to revision annually, dependent upon the actual number of dwelling units which must be determined for each municipality in accordance with the schedule of dwelling units set forth in the ordinance. In addition thereto, the computation for the industrial user charges has been based upon actual calculations of flow and waste characteristics for the industries in the district as a result of the 2021 industrial waste survey of the service area. These are estimates for 2022 and must be verified on an annual basis to reflect the actual flow and waste characteristics.

The basis for the industrial waste flow and characteristics are set forth in Appendix B of this report. The dwelling unit figures have been compiled by each municipality with the exception of Elizabeth in accordance with the revised Schedule of Dwelling Units incorporated into the User Charge Ordinance.

Table VII sets forth the cost to each municipality to establish the budget requirements of \$38,455,000.00 for 2022. However, it should be noted that in accordance with the Agreement between the Joint Meeting and the City of Elizabeth noted previously, and as a result of the monitoring of the Trenton Avenue Pumping Station, the City would provide for 31.8889482% of the treatment plant, sludge dewatering facility and sludge drying facility budgets initially with adjustments made quarterly. Upon completion and verification of the quality and quantity of the City's contribution as measured at the Trenton Avenue Pumping Station, plus the EDU's from the Elmore Avenue area, plus the City of Linden's contribution, an adjustment will then be made for the member municipalities.

Table II
Joint Meeting of Essex and Union Counties
Annual Report of the Sewer Contribution of the Municipalities
Municipality Dwelling Units and Industrial User Charge
2022

<u>Municipality</u>	<u>Dwelling Units ¹</u>	<u>User Charges Industrial</u>
East Orange	8,081	\$ -
Hillside	8,571	1,820,817
Irvington	26,634	344,171
Maplewood	9,888	16,191
Millburn	9,972 ⁴	-
Newark	12,930	-
Roselle Park	4,922	627
South Orange	8,306	-
Summit	14,562 ²	40,353 ³
Union	25,309	607,881
West Orange	20,597	-
Elizabeth	47,181	1,954,147
	<u>196,953</u>	<u>\$ 4,784,187</u>

- (1) Based on actual calculation and verification by Municipalities; City of Elizabeth computed by Elson T. Killam Associates in 1979 and updated by City Engineer on February 9, 1982.
- (2) Includes New Providence (3706)
- (3) Includes Murray Hill
- (4) Includes Livingston (485)

Table III
Joint Meeting of Essex and Union Counties
Computation of Estimated Percent
Contribution By City of Elizabeth
For Period 11/1/2020-10/31/2021 and Projected Contribution for 2022

Flow:	<u>Treatment Plant</u>	<u>Elizabeth Pumping Station</u>		<u>Joint Meeting</u>	
	22,068.822 MG	5,734.632 MG		16,334.190 MG	
		<i>Industrial</i>	<i>D&C</i>	<i>Industrial</i>	<i>D&C</i>
		153.035	5,581.597	381.636	15,952.554
		\$ 86,528.28	\$ 3,155,918.49	\$ 253,373.00	\$ 10,591,103.61
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Unit Charge	\$ 565.4149686 Per MG for Elizabeth				
Unit Charge	\$ 663.9127256 Per MG for Joint Meeting				
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BOD:	18,809.4486 Tons	7,044.3243 Tons		11,765.1243 Tons	
		<i>Industrial</i>	<i>D&C</i>	<i>Industrial</i>	<i>D&C</i>
		1,994.1388	5,050.1855	2,784.18575	8,980.93855
		\$ 1,710,106.23	\$ 4,330,868.88	\$ 2,387,623.86	
Unit Charge	\$857.5662974 Per Ton				
<hr/>					
TSS:	15,363.9159 Tons	3,474.7707 Tons		11,889.1452 Tons	
		<i>Industrial</i>	<i>D&C</i>	<i>Industrial</i>	<i>D&C</i>
		213.8934	3,260.8773	352.79084	11,536.35436
		\$ 114,614.19	\$ 1,747,332.09	\$ 189,042.00	
Unit Charge	\$535.8472362 Per Ton				
			<u>\$ 11,145,368.16</u>	<u>\$ 2,830,038.86</u>	

City of Elizabeth (Contribution from Pumping Station) \$ 11,145,368.16

City of Elizabeth (Industry Tributary to Joint Meeting Trunk)

Flow:	13.4910 MG/Year at	\$ 565.4149686	7,628.01
BOD:	36.4548 Tons/Year at	857.5662974	31,262.41
TSS:	7.4822 Tons/Year at	535.8472362	4,009.32

Joint Meeting Industrial	2,830,038.86
Subtotal	<u>\$ 14,018,306.76</u>

Total 2022 Budget	\$ 38,455,000.00
Subtotal (above)	(14,018,306.76)
Subtotal (EDU's)	<u>\$ 24,436,693.24</u>

Joint Meeting EDU's (X + Y) + Elmora EDU's (X) = \$ 24,436,693
 (Y = Additional Assessment to Member Municipalities for Trunk Sewer O&M)
 149,772 (X + \$10.491218051) + 3771 (X) = \$ 24,436,693

Equivalent Units-Member Municipalities 149,772

Elmora EDU's = 3,771 \$148,9185604680 Per Unit = X
 \$159,4097785190 Per Unit = X+Y

Joint Meeting EDU Assessment \$ 23,875,121.35
 Elmora Area Assessment \$ 561,571.89

Total Anticipated Payment from the City of Elizabeth

Pumping Station	\$ 11,145,368.16
Elmora EDU's	561,571.89
Elmora Industrial	42,899.74
	<u>\$ 11,749,839.79</u>

Total Anticipated Payment from Member Municipalities

EDU's	23,875,121.35
Industrial	2,830,038.86
	<u>\$ 26,705,160.21</u>

Estimated Percent Contribution of Treatment Plant, Sludge Dewatering and Sludge Drying Facility Budgets by
 City of Elizabeth
 \$ 11,749,839.79 / \$ 36,846,119.00 = 31.8889482%

Table IV
Joint Meeting of Essex and Union Counties
Percent Allocation of Infiltration / Inflow

Municipality	Capacity By Contract (MGD)	Capacity By Contract (Percent)	Base Year - 1982 Phase IIB - SSES ¹				Base Year - 1982 Phase IIB - SSES ²				
			Infiltration (GPD) ³	(Percent)	SSES - November 2021 (GPD) ⁴	(Percent)	Inflow (GPD)	(Percent)	SSES - November 2021 (GPD) ⁵	(Percent)	
					37,357					409,588	
East Orange	5.50	4.88%	70,747	2.11%	44,022	2.21%	3,007,440	5.79%	218,160	0.65%	
					27,891				2,211,776		
Hillside	12.20	10.83%	79,012	2.36%	32,980	1.65%	1,185,120	2.28%	1,185,120	3.51%	
					669,888				12,659,425		
Irvington	18.61	16.52%	1,115,672	33.31%	790,023	39.63%	8,612,640	16.57%	6,782,445	20.09%	
					167,176				3,541,362		
Maplewood	7.08	6.29%	389,078	11.62%	197,233	9.89%	5,449,680	10.48%	1,897,920	5.62%	
					129,143				4,354,237		
Millburn	6.00	5.33%	191,609	5.72%	152,240	7.64%	2,729,520	5.25%	2,333,520	6.91%	
					159,062				3,572,869		
Newark	15.50	13.76%	234,484	7.00%	187,506	9.41%	1,959,540	3.77%	1,915,875	5.67%	
					55,275				2,942,733		
Roselle Park	9.44	8.38%	106,187	3.17%	65,147	3.27%	1,576,080	3.03%	1,576,080	4.67%	
					71,164				3,289,308		
South Orange	7.00	6.22%	410,876	12.27%	83,906	4.21%	2,183,760	4.20%	1,761,840	5.22%	
					55,106				2,993,144		
Summit	7.50	6.66%	171,657	5.13%	64,916	3.26%	3,651,120	7.02%	1,604,880	4.75%	
					198,786				15,079,146		
Union	10.30	9.14%	329,127	9.83%	234,523	11.76%	14,534,640	27.96%	8,079,280	23.93%	
					119,677				11,959,975		
West Orange	13.50	11.99%	250,811	7.48%	141,147	7.08%	7,097,040	13.65%	6,413,400	18.98%	
					1,690,525				63,013,563		
	112.63	100.00%	3,349,260	100.00%	1,993,643	100.01%	51,986,580	100.00%	33,768,520	100.00%	

(1) Identified by Hazen & Sawyer Phase IIB SSES (pg. S-2) with trunk sewer infiltration allocated based on contract capacity.

(2) Identified by Hazen & Sawyer Phase IIB SSES (pg. S-3)

(3) "Base Year - 1982" Infiltration: 3.35 MGD / 52.79 MGD = 6.346%

(4) 2021 - Infiltration related to base year total = 1.994 MGD / 52.79 MGD = 3.77723054%

- Adjusted for period 11/1/2020 - 10/31/2021; (3.77723054% x 16,334.1900 = 616.98 MG / Year / 365 = 1,690,525 GPD)

(5) 2021 inflow adjusted for period 11/1/2020 - 10/31/2021 - (61.99" / 33.22") x (33,768,520) = 63,013,563 GPD

Table IV - A
Joint Meeting of Essex and Union Counties
Adjusted 2021 - Summary of Infiltration and Inflow

Municipality	Phase IIB SSES Infiltration (GPD)	2020 Infiltration (GPD)	2021 Infiltration Removed (GPD)	2021 Infiltration (GPD)	Phase IIB SSES Inflow (GPD)	2020 Inflow (GPD)	2021 Inflow Removed (GPD)	2021 Inflow (GPD)
East Orange	70,747	44,022	-	44,022	3,007,440	218,160	-	218,160
Hillside	79,012	32,980	-	32,980	1,185,120	1,185,120	-	1,185,120
Irvington	1,115,672	790,023	-	790,023	8,612,640	6,782,445	-	6,782,445
Maplewood	389,078	197,233	-	197,233	5,449,680	1,897,920	-	1,897,920
Millburn	191,609	152,240	-	152,240	2,729,520	2,333,520	-	2,333,520
Newark	234,484	187,506	-	187,506	1,959,540	1,915,875	-	1,915,875
Roselle Park	106,187	65,147	-	65,147	1,576,080	1,576,080	-	1,576,080
South Orange	410,876	83,906	-	83,906	2,183,760	1,761,840	-	1,761,840
Summit	171,657	64,916	-	64,916	3,651,120	1,604,880	-	1,604,880
Union	329,127	234,523	-	234,523	14,534,640	8,079,280	-	8,079,280
West Orange	250,811	141,147	-	141,147	7,097,040	6,413,400	-	6,413,400
Total	3,349,260	1,993,643	-	1,993,643	51,986,580	33,768,520	-	33,768,520

Table V
Joint Meeting of Essex and Union Counties
Cost Allocation - Flow, BOD & TSS with Infiltration / Inflow

		<u>Total</u>	<u>Domestic & Commercial</u>	<u>Industrial</u>
Flow		16,334.1900 MG \$10,245,020.53	15,952.5540 MG \$9,991,647.53	381.6360 MG \$253,373.00
Infiltration	3.7772305%	616.98	602.56	14.42
Inflow	15.6513424%	2,556.52	2,496.79	59.73
BOD	at \$857.5662974 Per Ton	11,765.1243 Tons \$10,089,374.08	8,980.9386 Tons \$7,701,750.22	2,784.1858 Tons \$2,387,623.86
TSS	at \$535.8472362 Per Ton	11,889.1452 Tons \$6,370,765.60	11,536.3544 Tons \$6,181,723.60	352.7908 Tons \$189,042.00
Total		\$26,705,160.21 ¹	\$23,875,121.35	\$2,830,038.86

(1) Amount anticipated from Members after allocation of 31.8889482% to City of Elizabeth \$ 11,749,839.79

"Base Year - 1982"

Infiltration: 3.35 MGD / 52.79 MGD = 6.34590% (Per H&S Phase IIB Report)

Inflow: 113 MGD (Excluding Elizabeth) / 137 MGD (Total) = 82.4817518% 1 inch of rain = 50 MG of inflow (Per H&S Phase IIB Report)

"2020 - 2021"

Infiltration: 1.994 MGD/52.79MGD = 3.77723054% X 16,334.1900 616.98 MG / Year
 (November 1, 2020 - October 31, 2021)

Inflow: Rainfall = 61.99 Inches X 50 MG X 82.482% 2,556.52 MG / Year

Total D&C	\$23,875,121.35
Less: Infiltration	(377,404.59)
Less: Inflow	(1,563,827.69)
Net after infiltration and inflow	<u>\$21,933,889.07</u>
Equivalent Dwelling Units	149,772
User Charge Per Unit	\$146.44852889726

Table VI
Joint Meeting of Essex and Union Counties
Estimated Annual Operation Expenses To Member Municipalities
2022

Domestic & Commercial									
Municipality	Dwelling Units	User Charge		Infiltration		Inflow		Total Cost	Unit Cost
		\$ 146.44852890 Per Unit	Percent ¹	Amount	Percent ²	Amount			
East Orange	8,081	\$1,183,450.56	2.21%	\$8,340.64	0.65%	\$10,164.88	\$1,201,956.08	\$148.7385	
Hillside	8,571	1,255,210.34	1.65%	6,227.18	3.51%	54,890.35	1,316,327.87	153.5793	
Irvington	26,634	3,900,510.12	39.63%	149,565.44	20.09%	314,172.98	4,364,248.54	163.8600	
Maplewood	9,888	1,448,083.05	9.89%	37,325.31	5.62%	87,887.12	1,573,295.48	159.1116	
Millburn	9,972 ³	1,460,384.73	7.64%	28,833.71	6.91%	108,060.49	1,597,278.93	160.1764	
Newark	12,930	1,893,579.48	9.41%	35,513.77	5.67%	88,669.03	2,017,762.28	156.0528	
Roselle Park	4,922	720,819.66	3.27%	12,341.13	4.67%	73,030.75	806,191.54	163.7935	
South Orange	8,306	1,216,401.48	4.21%	15,888.73	5.22%	81,631.81	1,313,922.02	158.1895	
Summit	14,562 ⁴	2,132,583.48	3.26%	12,303.39	4.75%	74,281.82	2,219,168.69	152.3945	
Union	25,309	3,706,465.82	11.76%	44,382.78	23.93%	374,223.97	4,125,072.57	162.9884	
West Orange	20,597	3,016,400.35	7.08%	26,720.24	18.98%	296,814.50	3,339,935.09	162.1564	
	<u>149,772</u>	<u>\$21,933,889.07</u>	<u>100.01%</u>	<u>\$377,442.32</u>	<u>100.00%</u>	<u>\$1,563,827.70</u>	<u>\$23,875,159.09</u>	<u>\$159.4100</u>	

(1) See Table IV - Infiltration for November of the Prior Year

(2) See Table IV - Inflow for November of the Prior Year

(3) Includes Livingston (485)

(4) Includes New Providence (3675)

\$147.2083 2021
 \$145.3391 2020
 \$150.2422 2019
 \$143.4346 2018

Table VI (Continued)
Joint Meeting of Essex and Union Counties
Estimated Annual Operation Expenses To Member Municipalities
2022

Municipality	Industrial									
	BOD (Tons / Year)	BOD ¹ (\$/Year)	TSS (Tons / Year)	TSS ² (\$/Year)	Flow (MG / Year)			Flow ³ (\$/Year)	Total Cost	
					Dry Weather	Infiltration 3.777231%	Inflow 15.651342%			
East Orange	0.0000	\$0.00	0.0000	\$0.00	0.00	0.00	0.00	0.00	\$0.00	\$0.00
Hillside	1,890.0640	1,620,855.19	135.4309	72,570.27	154.60	7.25	30.03	191.88	127,391.57	1,820,817.03
Irvington	375.3598	321,895.91	8.2428	4,416.88	21.67	1.02	4.21	26.90	17,857.92	344,170.71
Maplewood	11.6452	9,986.54	3.1407	1,682.94	5.49	0.26	1.07	6.81	4,520.58	16,190.06
Millburn	0.0000	0.00	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Newark	0.0000	0.00	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Roselle Park	0.1923	164.90	0.2120	113.57	0.42	0.02	0.08	0.52	347.89	626.36
South Orange	0.0000	0.00	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Summit ⁴	7.3989	6,345.00	6.2353	3,341.16	37.22	1.75	7.23	46.19	30,666.79	40,352.95
Union	499.5256	428,376.32	199.5292	106,917.17	88.09	4.13	17.11	109.33	72,588.23	607,881.72
West Orange	0.0000	0.00	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	<u>2,784.1858</u>	<u>\$2,387,623.86</u>	<u>352.7908</u>	<u>\$189,041.99</u>	<u>307.49</u>	<u>14.42</u>	<u>59.73</u>	<u>381.64</u>	<u>\$253,373.00</u>	<u>\$2,830,038.85</u>

(1) At \$857.5662974/Ton

(2) At \$535.8472362/Ton

(3) At \$663.9127256/MG

(4) Includes Murray Hill

Table VII
Joint Meeting of Essex and Union Counties
Summary of Estimated Annual Operational and Maintenance Expenses To Member Municipalities
2022

Domestic & Commercial					
Municipality	Total Assessments ¹	User Charge			Assessment Percentage
		Domestic Sewage 146,448,528.9	User Charges Industrial	Infiltration / Inflow Charges	
East Orange	\$1,201,956.08	\$1,183,450.56	\$0.00	\$18,505.52	4.5008%
Hillside	3,137,144.90	1,255,210.34	1,820,817.03	61,117.53	11.7473%
Irvington	4,708,419.25	3,900,510.12	344,170.71	463,738.42	17.6311%
Maplewood	1,589,485.54	1,448,083.05	16,190.06	125,212.43	5.9520%
Millburn	1,597,278.93	1,460,384.73	0.00	136,894.20	5.9812%
Newark	2,017,762.28	1,893,579.48	0.00	124,182.80	7.5557%
Roselle Park	806,817.90	720,819.66	626.36	85,371.88	3.0212%
South Orange	1,313,922.02	1,216,401.48	0.00	97,520.54	4.9201%
Summit	2,259,521.64	2,132,583.48	40,352.95	86,585.21	8.4610%
Union	4,732,954.29	3,706,465.82	607,881.72	418,606.75	17.7230%
West Orange	3,339,935.09	3,016,400.35	0.00	323,534.74	12.5066%
	<u>\$26,705,197.94</u>	<u>\$21,933,889.07</u>	<u>\$2,830,038.85</u>	<u>\$1,941,270.02</u>	<u>100.0000%</u>
Elizabeth	11,749,802.06				
Total	<u><u>\$38,455,000.00</u></u>				

(1) Reflects anticipated payment of \$11,749,802.06 from the City of Elizabeth which is 31.8889482% of allocation from Treatment Plant, Sludge Dewatering, and Sludge Drying budget. Exact 2022 percent contribution to be calculated at the end of fiscal year. Quarterly adjustments to be made in accordance with Agreement between Elizabeth and Joint Meeting.

Table VIII
Joint Meeting of Essex and Union Counties
Comparison of 2022 Assessment with 2021 Assessment

<u>Municipality</u>	<u>2021</u>	<u>2022</u>		<u>Comparison</u>	
				<u>Amount</u>	<u>Percentage</u>
East Orange	\$1,196,559.00	\$1,201,956.08	(+)	\$5,397.08	0.45%
Hillside	2,497,084.00	3,137,144.90	(+)	640,060.90	25.63%
Irvington	4,838,375.00	4,708,419.25	(-)	(129,955.75)	-2.69%
Maplewood	1,570,929.00	1,589,485.54	(+)	18,556.54	1.18%
Millburn	1,576,091.00	1,597,278.93	(+)	21,187.93	1.34%
Newark	2,003,526.00	2,017,762.28	(+)	14,236.28	0.71%
Roselle Park	767,655.00	806,817.90	(+)	39,162.90	5.10%
South Orange	1,302,634.00	1,313,922.02	(+)	11,288.02	0.87%
Summit	2,242,262.00	2,259,521.64	(+)	17,259.64	0.77%
Union	4,616,635.00	4,732,954.29	(+)	116,319.29	2.52%
West Orange	3,278,639.00	3,339,935.09	(+)	61,296.09	1.87%
	<u>\$25,890,389.00</u>	<u>\$26,705,197.94</u>	(+)	<u>\$814,808.94</u>	<u>3.15%</u>
Elizabeth	11,821,246.23	11,749,802.06	(-)	\$ (71,444.17)	-0.60%
Total	<u>\$37,711,635.23</u>	<u>\$38,455,000.00</u>	(+)	<u>\$743,364.77</u>	<u>1.97%</u>

Note: City of Elizabeth percentage contribution of Treatment Plant, Sludge Dewatering, and Sludge Drying Budget:

City of Elizabeth percentage	
2018	31.77668480%
2019	32.79334100%
2020	35.79934530%
2021	31.88894820%

Table III, IV, V, VI, and VII, have been prepared to reflect the Domestic Sewer Usage and Industrial User assessment to each municipality for 2022 as a result of the Agreement with the City of Elizabeth which requires 31.8889482% of the 2022 Treatment Plant, Sludge Dewatering and Sludge Drying Budget to be paid in Quarterly assessments with adjustments made following the determination of the actual percentage of contribution for each quarter. The 31.8889482% figure is an estimate based upon actual monitoring of quality and quantity at the Trenton Avenue Pumping Station, etc., in accordance with the Agreement. The actual percentage of contribution will be determined following the completion of the annual audit of expenses. In addition, these tables reflect the costs associated with Infiltration / Inflow for the member municipalities, the percentages of which were determined from the Phase IIB SSES Reports, adjusted as a result of rehabilitation work, and updated in 2017.

Summary and Certification

On the basis of the measured usage of Section One of the Supplementary Joint Trunk Sewer and the Treatment Plant, including the Sludge Dewatering and Sludge Drying Facilities, and an estimate of Dwelling Units and Waste Characteristics for the municipalities organized in Joint Meeting, and in accordance with the provisions of the 1926 contract, I hereby certify that the estimated maintenance and operating costs of the Joint Meeting for the 2022 are apportioned as follows:

	<u>2022</u>	<u>2021</u>		<u>2022</u>	<u>2021</u>
East Orange	4.5008%	4.6216%	Roselle Park	3.0212%	2.9650%
Hillside	11.7473%	9.6448%	South Orange	4.9201%	5.0313%
Irvington	17.6311%	18.6879%	Summit	8.4610%	8.6606%
Maplewood	5.9520%	6.0676%	Union	17.7230%	17.8315%
Millburn	5.9812%	6.0876%	West Orange	12.5066%	12.6635%
Newark	7.5557%	7.7385%	Total	<u>100.0000%</u>	<u>100.0000%</u>

Respectfully submitted,



A. Ralph LaMendola. P.E., BCEE

**Joint Meeting of Essex and Union Counties
Annual Report of the Sewer Contribution of the Municipalities
Appendix A
2022 Budget**

	Treatment Plant	Dewatering Facility	Drying Facility	Sewer	Total
Electric Service	\$ 900,000	\$ 100,000	\$ -	\$ -	\$ 1,000,000
Gas Service	800,000	100,000	-	-	900,000
Fuel, Oil & Kerosene	70,000	28,100	-	-	98,100
Water Service	130,000	87,000	3,000	-	220,000
Chemicals	4,707,200	1,089,150	6,800	9,000	5,812,150
Sludge Disposal	-	3,326,400	-	-	3,326,400
Insurance	732,494	146,499	68,366	29,300	976,659
Administration	3,593,973	2,090,663	10,000	401,747	6,096,383
Labor	5,175,211	1,059,844	143,177	364,619	6,742,851
Benefits	3,703,790	698,639	75,983	96,965	4,575,377
Equipment	288,000	62,000	-	-	350,000
Printing & Stationery	17,000	2,000	-	1,000	20,000
Maintenance, Supplies & Spare Parts	2,120,000	571,750	5,000	611,250	3,308,000
Screening Disposal	263,080	-	-	-	263,080
Reserve Contingency	250,000	-	-	-	250,000
Miscellaneous Expenses	390,000	100,000	-	60,000	550,000
Technical & Professional Services	1,086,000	50,000	-	25,000	1,161,000
Replacement Fund	2,000,000	-	-	-	2,000,000
NJPDES & Miscellaneous Permit Fee	775,000	20,000	-	10,000	805,000
	\$ 27,001,748	\$ 9,532,045	\$ 312,326	\$ 1,608,881	\$ 38,455,000
	70.22%	24.79%	0.81%	4.18%	100.00%

Joint Meeting of Essex and Union Counties
Annual Report of the Sewer Contribution of the Municipalities
Appendix A (Continued)
Operations and Management Cost Allocations
(Treatment Plant)

	Estimated Total Cost	Percent Flow	Cost Flow	Percent SS	Cost SS	Percent BOD	Cost BOD
General Expenditures 1	\$ 5,895,774	80%	\$ 4,716,619	10%	\$ 589,577	10%	\$ 589,578
Power	900,000	40%	\$ 360,000	5%	\$ 45,000	55%	\$ 495,000
Chlorine	2,700,000	40%	\$ 1,080,000			60%	\$ 1,620,000
Maintenance, Equipment, Supplies, Spare Parts, & Replacement Fund	4,658,000	28%	\$ 1,304,240	27%	\$ 1,257,660	45%	\$ 2,096,100
Fuel, Oil & Kerosene	70,000	40%	\$ 28,000	30%	\$ 21,000	30%	\$ 21,000
Administration, Labor & Benefits (Payroll Retirement)	12,472,974	40%	4,989,190	10%	\$ 1,247,297	50%	\$ 6,236,487
Sludge Processing 2	300,000			50%	\$ 150,000	50%	\$ 150,000
Total	\$26,996,748		\$ 12,478,049		\$ 3,310,534		\$ 11,208,165
	100%		46.2205633%		12.2627140%		41.5167227%

(1) General Expenditures
(From the Approved Budget)

Insurance	\$ 732,494
Technical & Professional Services	1,086,000
Stationery & Printing	17,000
Gas	800,000
Water	130,000
Miscellaneous	390,000
Service Contracts	263,080
Permit Fees	775,000
Sodium Bisulfite & Misc. Chemicals	1,702,200
	<u>\$5,895,774</u>

(2) Sludge Processing

Polymer	\$ 250,000
K2MnO4	50,000
	<u>\$ 300,000</u>

**Joint Meeting of Essex and Union Counties
Annual Report of the Sewer Contribution of the Municipalities
Appendix A (Continued)
Operations and Management Allocations**

	Estimated			
	Total Cost	Cost Flow	Cost TSS	Cost BOD
Treatment Plant	\$ 26,996,748	\$ 12,478,049	\$ 3,310,534	\$ 11,208,165
Dewatering Facility	9,532,045		4,766,023	4,766,023
Drying Facility	312,326		156,163	156,163
	<u>\$ 36,841,119</u>	<u>\$ 12,478,049</u>	<u>\$ 8,232,720</u>	<u>\$ 16,130,351</u>
Subtotal	100.00%	33.8698968%	22.3465511%	43.7835521%
Sewers 1	\$ 1,608,881			
Total	<u>\$ 38,455,000</u>			

(1) Joint Meeting Members Only

JOINT MEETING OF ESSEX & UNION COUNTIES

**INDUSTRIAL USER CHARGE - 2022
SUMMARY**

MUNICIPALITY	FLOW (MG)	LOADINGS	
		BOD (tons)	TSS (tons)
HILLSIDE	191.880	1890.064	135.4309
IRVINGTON	26.898	375.3598	8.2428
MAPLEWOOD	6.809	11.64521	3.14071
MURRAY HILL	14.755	0.30764	0.43070
ROSELLE PARK	0.524	0.19229	0.21195
SUMMIT	31.436	7.09121	5.80458
UNION	109.334	499.5256	199.5292
<i>MEMBERS TOTAL</i>	381.636	2784.185	352.7908
<i>ELIZABETH</i>	166.526	2030.594	221.3756
GRAND TOTAL	548.162	4814.77911096	574.16640345

MUNICIPALITY	FLOW	COSTS		
		BOD	TSS	TOTAL
HILLSIDE	\$127,392.00	\$1,620,854.93	\$72,570.25	\$1,820,817.19
IRVINGTON	\$17,857.98	\$321,895.94	\$4,416.87	\$344,170.79
MAPLEWOOD	\$4,520.60	\$9,986.54	\$1,682.94	\$16,190.08
MURRAY HILL	\$9,796.07	\$263.82	\$230.79	\$10,290.68
ROSELLE PARK	\$347.89	\$164.90	\$113.57	\$626.36
SUMMIT	\$20,870.83	\$6,081.18	\$3,110.37	\$30,062.38
UNION	\$72,588.48	\$428,376.32	\$106,917.17	\$607,881.97
<i>MEMBERS TOTAL</i>	\$253,373.85	\$2,387,623.64	\$189,041.95	\$2,830,039.45
<i>ELIZABETH</i>	\$94,156.29	\$1,741,368.65	\$118,623.53	\$1,954,148.47
GRAND TOTAL	\$347,530.15	\$4,128,992.29	\$307,665.48	\$4,784,187.92

JOINT MEETING OF ESSEX & UNION COUNTIES

**INDUSTRIAL USER CHARGE - 2022
COST FACTORS**

	FLOW	BOD	TSS
MEMBER MUNICIPALITIES	\$663.9149686	\$857.5662974	\$535.8472362
ELIZABETH	\$565.4149686	\$857.5662974	\$535.8472362

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2022

Municipality: HILLSIDE

IU #	INDUSTRY	SITE	Concentration		Cost Factors			ANNUAL PAYMENT
			BOD (mg/l)	TSS (mg/l)	Flow per MG (\$668,814.8886)	BOD per Ton (\$867,456820.74)	TSS per Ton (\$635,847,288.2)	
1050	Manhattan Drug Co.	4	714	344	0.680	2.0246	0.9754	
		99	213	171	0.097	0.0862	0.0692	
	Totals:				0.777	2.1108	1.0446	
	Cost Analysis:				\$515.86	\$1,810.13	\$559.75	\$2,885.74 15-Nov
1094	AAK Foodservice (Formerly Oasis Foods)	3	4375	2189	9.688	176.7455	88.4333	
		99	213	171	1.401	1.2444	0.9990	
	Totals:				11.089	177.9898	89.4323	
	Cost Analysis:				\$7,362.15	\$152,638.08	\$47,922.07	\$207,922.30 15-Nov
1090	Union Beverage	1	2339	56	172.007	1677.6926	40.1671	
		99	213	171	0.816	0.7248	0.5819	
	Totals:				172.823	1678.4174	40.7489	
	Cost Analysis:				\$114,739.78	\$1,439,354.21	\$21,835.21	\$1,575,929.19 15-Nov
1091	Hillside Beverage	2	1347	75	4.581	25.7314	1.4327	
		99	213	171	0.053	0.0471	0.0378	
	Totals:				4.634	25.7785	1.4705	
	Cost Analysis:				\$3,076.58	\$22,106.78	\$787.96	\$25,971.32 15-Nov
1092	A&H Products	1	566	263	2.375	5.6055	2.6047	
		99	213	171	0.182	0.1617	0.1298	
	Totals:				2.557	5.7672	2.7345	
	Cost Analysis:				\$1,697.63	\$4,945.74	\$1,465.26	\$8,108.62 15-Nov
1093	Sam Hak Foods	1	0	0	0.000	0.0000	0.0000	
		99	0	0	0.000	0.0000	0.0000	
	Totals:				0.000	0.0000	0.0000	
	Cost Analysis:				\$0.00	\$0.00	\$0.00	\$0.00
HILLSIDE TOTALS					191.8800	1,890.0637	135.4309	
					\$127,392.00	\$1,620,854.93	\$72,570.25	\$1,820,817.19

*Sam Hak Foods - Did not discharge during this Assessment Period

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2022

Municipality: IRVINGTON

IU #	Cost Factors	SITE	Concentration		Cost Factors			ANNUAL PAYMENT
			BOD (mg/l)	TSS (mg/l)	Flow per MG (\$688.97/49886)	BOD per ton (\$67.5662974)	TSS per ton (\$586.8472892)	
2066	Wayne County Foods	1	3414	87	0.172	2.4487	0.0624	
		99	213	171	0.099	0.0879	0.0706	
	Totals:				0.271	2.5366	0.1330	
	Cost Analysis:				\$179.92	\$2,175.29	\$71.26	\$2,426.48 15-Nov
2072	Clean-Tex Services	1	200	51	10.517	8.7712	2.2367	
		99	213	171	0.204	0.1812	0.1455	
	Totals:				10.721	8.9524	2.3821	
	Cost Analysis:				\$7,117.83	\$7,677.25	\$1,276.45	\$16,071.54 15-Nov
*2076	International Vitamin	1			0.000	0.0000	0.0000	
	Totals:				0.000	0.0000	0.0000	
	Cost Analysis:				\$0.00	\$0.00	\$0.00	\$0.00
2078	City Barrel	1	42	11	0.325	0.0569	0.0149	
		99	213	171	0.176	0.1563	0.1255	
	Totals:				0.501	0.2132	0.1404	
	Cost Analysis:				\$332.62	\$182.87	\$75.24	\$590.73 15-Nov
3050	Maplewood Beverage	2	5854	84	14.878	363.1895	5.2115	
		99	213	171	0.527	0.4681	0.3758	
	Totals:				15.405	363.6576	5.5873	
	Cost Analysis:				\$10,227.61	\$311,860.52	\$2,993.91	\$325,082.05 15-Nov
IRVINGTON TOTALS					26.8980	375.3598	8.2428	
					\$17,857.98	\$321,895.94	\$4,416.87	\$344,170.79

*International Vitamin ceased operation on 7/10/20, sale of business is pending.

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2022

Municipality: MAPLEWOOD

IU #	INDUSTRY	SITE	Concentration		Cost Factors			ANNUAL PAYMENT
			BOD (mg/l)	TSS (mg/l)	Flow per MG \$663.9148886	BOD per Ton \$867.5682974	TSS per Ton \$636.8472382	
3020	*Gleason Cleaners					0.0000	0.0000	
	Totals:					0.0000	0.0000	
	Cost Analysis:				\$0.00	\$0.00	\$0.00	\$0.00 10-Nov
3033	NJ Transit - Hilton Gar.	3a	244	299	1.895	1.9281	2.3627	
		4	775	51	2.535	8.1925	0.5391	
	Totals:				4.430	10.1206	2.9019	
	Cost Analysis:				\$2,941.14	\$8,679.09	\$1,554.95	\$13,175.19 15-Nov
3046	UniClean	1	148	10	2.171	1.3399	0.0905	
		99	213	171	0.208	0.1847	0.1483	
	Totals:				2.379	1.5246	0.2388	
	Cost Analysis:				\$1,579.45	\$1,307.45	\$127.99	\$3,014.89 15-Nov
MAPLEWOOD TOTALS					6.8090	11.6452	3.1407	
					\$4,520.60	\$9,986.54	\$1,682.94	\$16,190.08

*Gleason Cleaners ceased operation as of 1/2/21

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2022

Municipality: MURRAY HILL

IU #	INDUSTRY	SITE	Concentration		Cost Factors			ANNUAL PAYMENT	
			BOD (mg/l)	TSS (mg/l)	Flow per MG	BOD per Ton	TSS per Ton		
5010	Nokia	1	5	7	14.755	0.3076	0.4307		
	Totals:				14.755	0.3076	0.4307		
	Cost Analysis:				\$9,796.07	\$263.82	\$230.79	\$10,290.68	15-Nov
MURRAY HILL TOTALS					14.7550	0.3076	0.4307	\$10,290.68	
					\$9,796.07	\$263.82	\$230.79		

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2022

Municipality: ROSELLE PARK

IU #	INDUSTRY	SITE	Concentration		Cost Factors			ANNUAL PAYMENT	
			BOD (mg/l)	TSS (mg/l)	Flow per MG	BOD per Ton	TSS per Ton		
6005	Hexacon Electric	2	88	97	0.524	0.1923	0.2120		
	Totals:				0.524	0.1923	0.2120		
	Cost Analysis:				\$347.89	\$164.90	\$113.57	\$626.36	15-Nov
ROSELLE PARK TOTALS					0.5240	0.1923	0.2120	\$626.36	
					\$347.89	\$164.90	\$113.57		

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2022

Municipality: SUMMIT

IU #	INDUSTRY	SITE	Concentration		Cost Factors			ANNUAL PAYMENT
			BOD (mg/l)	TSS (mg/l)	Flow per MG (\$682/9148686)	BOD per Ton (\$67/5662974)	TSS per Ton (\$665/8472862)	
5511	Novartis Groundwater	4	1	2	0.837	0.0035	0.0070	
	Totals:				0.837	0.0035	0.0070	
	Cost Analysis:				\$555.70	\$2.99	\$3.74	\$562.43 15-Nov
5514	Celgene West 556	03A 99	55 213	45 171	30.493 0.106	6.9936 0.0942	5.7220 0.0756	
	Totals:				30.599	7.0877	5.7976	
	Cost Analysis:				\$20,315.13	\$6,078.19	\$3,106.63	\$29,499.95 15-Nov
SUMMIT TOTALS					31.4360	7.0912	5.8046	
					\$20,870.83	\$6,081.18	\$3,110.37	\$30,062.38

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2022

Municipality: UNION

IU #	INDUSTRY	SITE	Concentration			Cost Factors			ANNUAL PAYMENT
			BOD (mg/l)	TSS (mg/l)	FLOW (MG)	BOD (Tons)	TSS (Tons)		
7015	ACuPowder	3 (99)	213	171	0.016	0.0142	0.0114		
		4	398	145	1.855	3.0787	1.1216		
	Totals:				1.871	3.0929	1.1330		
	Cost Analysis:				\$1,242.18	\$2,652.35	\$607.13	\$4,501.67 15-Nov	
7070	Durex	1	68	127	4.184	1.1864	2.2158		
	Totals:				4.184	1.1864	2.2158		
	Cost Analysis:				\$2,777.82	\$1,017.43	\$1,187.33	\$4,982.58 15-Nov	
7077	*Evoqua Water Tech					0.0000	0.0000		
	Totals:					0.0000	0.0000		
	Cost Analysis:				\$0.00	\$0.00	\$0.00	\$0.00	
7080	Foremost Mfg	2	10	138	4.924	0.2053	2.8336		
	Totals:				4.924	0.2053	2.8336		
	Cost Analysis:				\$3,269.12	\$176.08	\$1,518.36	\$4,963.56 15-Nov	
7092	International Paint	5	2	3	15.694	0.1309	0.1963		
		99	213	171	0.022	0.0195	0.0157		
	Totals:				15.716	0.1504	0.2120		
	Cost Analysis:				\$10,434.09	\$129.00	\$113.61	\$10,676.70 15-Nov	
7197	1011 Morris Avenue Urban Renewal	1	5	10	0.772	0.0161	0.0322		
					0.772	0.0161	0.0322		
	Cost Analysis:				\$512.54	\$13.80	\$17.25	\$543.60 15-Nov	
7191	Cintas (Location 111)	1	839	456	24.245	84.8243	46.1024		
	Totals:				24.245	84.8243	46.1024		
	Cost Analysis:				\$16,096.62	\$72,742.45	\$24,703.82	\$113,542.88 15-Nov	
7192	**Toppan Merrill Corporation	1	0	0	0.000	0.0000	0.0000		
	Totals:				0.000	0.0000	0.0000		
	Cost Analysis:				\$0.00	\$0.00	\$0.00	\$0.00	
7193	Lioni Latticini	1	4713	740	8.603	169.0766	26.5471		
		99	213	171	0.312	0.2771	0.2225		
	Totals:				8.915	169.3537	26.7696		
	Cost Analysis:				\$5,918.80	\$145,232.01	\$14,344.42	\$165,495.24 15-Nov	
7194	BASF Corporation	1	14	608	0.128	0.0075	0.3245		
		99	213	171	1.536	1.3643	1.0953		
	Totals:				1.664	1.3718	1.4198		
	Cost Analysis:				\$1,104.75	\$1,176.38	\$760.80	\$3,041.93 15-Nov	
7195	Deep Foods	7	1332	650	42.384	235.4194	114.8818		
		01 (99)	213	171	0.830	0.7372	0.5918		
		02 (99)	213	171	1.204	1.0694	0.8585		
		05 (99)	213	171	0.759	0.6742	0.5412		
		06 (99)	213	171	0.059	0.0524	0.0421		
	Totals:				45.236	237.9526	116.9155		
	Cost Analysis:				\$30,032.86	\$204,060.10	\$62,648.85	\$296,741.80 15-Nov	
7196	Cintas (Location 16F)	1	180	257	1.692	1.2700	1.8133		
		99	213	171	0.115	0.1021	0.0820		
	Totals:				1.807	1.3722	1.8953		

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2022

Municipality: UNION

IU #	INDUSTRY	SITE	Concentration		Cost Factors			ANNUAL PAYMENT		
			BOD (mg/l)	TSS (mg/l)	Flow per MG	BOD per Ton	TSS per Ton			
					\$66819149888		\$867.3682974	\$63518472882		
		Cost Analysis:			\$1,199.69		\$1,176.72	\$1,015.59	\$3,392.00	15-Nov
	UNION TOTALS				109.3340		499.5256	199.5292	\$72,588.48	
					\$72,588.48		\$428,376.32	\$106,917.17	\$607,881.97	

*Evoqua Water Tech ceased operation/closed as of March 2021.

**Toppan Merrill Corp ceased Industrial Wastewater Discharge in November 2019.

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2022

Municipality: ELIZABETH

IU #	INDUSTRY	SITE	Concentration		Cost Factors			ANNUAL PAYMENT	
			BOD (mg/l)	TSS (mg/l)	Flow per MG	BOD per Ton	TSS per Ton		
					\$566.4149686	\$857.5662974	\$535.8472362		
0199	Prodalim USA (formerly Wild Flavors)	1	439	127	0.069	0.1263	0.0365		
	Totals:				0.069	0.1263	0.0365		
	Cost Analysis:				\$39.01	\$108.32	\$19.58	\$166.92	15-Nov
0037	Deb-EI Foods	2	3288	606	21.324	292.3725	53.8862		
		99	213	171	0.414	0.3677	0.2952		
	Totals:				21.738	292.7402	54.1814		
	Cost Analysis:				\$12,290.99	\$251,044.16	\$29,032.95	\$292,368.09	15-Nov
0062	Garcia Uniforms, Inc.	2	538	130	2.485	5.5750	1.3471		
		99	213	171	0.072	0.0640	0.0513		
	Totals:				2.557	5.6389	1.3985		
	Cost Analysis:				\$1,445.77	\$4,835.77	\$749.36	\$7,030.90	15-Nov
0193	Actavis	3	648	133	13.491	36.4548	7.4822		
	Totals:				13.491	36.4548	7.4822		
	Cost Analysis:				\$7,628.01	\$31,262.44	\$4,009.34	\$42,899.80	15-Nov
0070	LORCO	2	12735	94	18.543	984.7251	7.2685		
	Totals:				18.543	984.7251	7.2685		
	Cost Analysis:				\$10,484.49	\$844,467.05	\$3,894.80	\$858,846.33	15-Nov
0075	Mastercraft Electroplating	99	213	171	0.026	0.0231	0.0185		
	Totals:				0.026	0.0231	0.0185		
	Cost Analysis:				\$14.70	\$19.80	\$9.93	\$44.44	15-Nov
0093	The Mills at Jersey Gardens	4	7	18	6.334	0.1849	0.4754		
	Totals:				6.334	0.1849	0.4754		
	Cost Analysis:				\$3,581.34	\$158.55	\$254.76	\$3,994.65	15-Nov
0098	Olympia Trails	1	244	60	1.205	1.2261	0.3015		
		99	213	171	0.108	0.0959	0.0770		
	Totals:				1.313	1.3220	0.3785		
	Cost Analysis:				\$742.39	\$1,133.69	\$202.82	\$2,078.90	15-Nov
0100	Michaels Foods - North Avenue Facility	4	3178	485	29.966	397.1172	60.6047		
		4a	1236	242	3.604	18.5754	3.6369		
		4b	1346	159	2.215	12.4324	1.4686		
		99	213	171	0.730	0.6484	0.5205		
	Totals:				36.515	428.7735	66.2308		
	Cost Analysis:				\$20,646.13	\$367,701.67	\$35,489.61	\$423,837.40	15-Nov

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2022

Municipality: ELIZABETH

IU #	INDUSTRY	SITE	Concentration		Cost Factors			ANNUAL PAYMENT	
			BOD (mg/l)	TSS (mg/l)	Flow per MG (\$565,414/9686)	BOD per Ton (\$857,568/2974)	TSS per Ton (\$635,847/2362)		
0105	Michaels Foods - Papetti Plaza Facility	2	1396	344	38.945	226.7113	55.8658	\$270,303.02	15-Nov
		2a	683	122	5.744	16.3595	2.9222		
		2b	406	117	1.748	2.9594	0.8528		
		3	83	178	0.874	0.3025	0.6487		
		Totals:			47.311	246.3328	60.2896		
	Cost Analysis:			\$26,750.35	\$211,246.66	\$32,306.01			
0148	Superior Powder Coating	1	302	101	2.808	3.5362	1.1826	\$6,274.35	15-Nov
		99	213	171	0.597	0.5303	0.4257		
		Totals:			3.405	4.0665	1.6083		
		Cost Analysis:			\$1,925.24	\$3,487.28	\$861.83		
0195	Duro Hilex Poly LLC	1	848	473	2.231	7.8892	4.4004	\$13,505.23	15-Nov
		2	145	159	1.313	0.7939	0.8706		
		3(99)	213	171	0.720	0.6395	0.5134		
		Totals:			4.264	9.3226	5.7844		
		Cost Analysis:			\$2,410.93	\$7,994.74	\$3,099.56		
0165	Wakefern Food Corp.	2	170	183	1.069	0.7578	0.8158	\$15,454.85	15-Nov
		3a	166	479	5.528	3.8266	11.0418		
		4	441	304	0.472	0.8680	0.5983		
		(7) 99	213	171	0.063	0.0560	0.0449		
		Totals:			7.132	5.5084	12.5008		
	Cost Analysis:			\$4,032.54	\$4,723.78	\$6,698.53			
0178	Smithfield Packaged Meats	3	609	325	1.307	3.3192	1.7713	\$4,580.70	15-Nov
		99	213	171	0.027	0.0240	0.0193		
		Totals:			1.334	3.3431	1.7906		
	Cost Analysis:			\$754.26	\$2,866.97	\$959.47			
0189	Prince Donut Co.	3	3684	555	0.773	11.8750	1.7890	\$11,842.55	15-Nov
		99	213	171	0.154	0.1368	0.1098		
		Totals:			0.927	12.0118	1.8988		
	Cost Analysis:			\$524.14	\$10,300.94	\$1,017.47			
0194	Erie Street (former MGP Site)	3	3	5	1.567	0.0196	0.0327	\$920.32	15-Nov
		Totals:			1.567	0.0196	0.0327		
		Cost Analysis:			\$886.01	\$16.81	\$17.51		
ELIZABETH TOTALS					166.5260	2,030.594	221.3756	\$1,954,148.47	
					\$94,156.29	\$1,741,368.65	\$118,623.53		