

December 18, 2020

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 2021

I present herewith the 86th 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, 2019 through October 31, 2020. 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 2021. 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 2020, 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 20, 2019.

During 2020, 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 (2021) dwelling unit figures formulated by each municipality in 2020.

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, 366 day period of November 1, 2019, through October 31, 2020 and projected for a twelve (12) month period in 2021. 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 2021, 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 366 day period from November 1, 2019, through October 31, 2020, and projected for 2021 and are based upon actual 2019-2020 operating statistics as well as a recent upgraded 2020 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	20,049.3730 MG/Year	54.7797 MGD
2.	BOD	18,946.4497 Tons/Year	103,532.5120 Lbs/Day
	TSS	15,563.4582 Tons/Year	85,046.2197 Lbs/Day
3.	Estimated Industrial Flow	507.4710 MG/Year	1.3865 MGD
4.	Estimated Industrial BOD	3,868.7021 Tons/Year	21,140.4486 Lbs/Day
5.	Estimated Industrial TSS	623.2216 Tons/Year	3,405.5827 Lbs/Day
6.	Estimated Total Operating Expenses in 2021		
			\$26,451,064 STP
			9,409,849 SDWF
			333,708 SDF
			1,516,978 Sewers
			<hr/> \$37,711,599 Total
7.	Estimated Total Dwelling Units in System		
			159,839 JM Members
			47,181 Elizabeth
			<hr/> 207,020 Total

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

Flow	33.5212215%
BOD	43.8519334%
Suspended Solids	22.6268451%

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 2021 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 2021

Treatment Plant

	<u>Total for 2021</u>		<u>Domestic & Commercial</u>		<u>Industrial</u>
Flow	20,049.3730	MG/Yr. ¹	19,541.9020	MG/Yr.	507.4710 MG/Yr.
BOD	18,946.4497	Tons/Yr. ¹	15,077.7476	Tons/Yr.	3,868.7021 Tons/Yr.
Suspended Solids	15,563.4582	Tons/Yr. ¹	14,940.2366	Tons/Yr.	623.2216 Tons/Yr.

(1) Based upon data from November 1, 2019 thru October 31, 2020 (366 days)

Cost Allocation

	<u>Total for 2021</u>		<u>Domestic & Commercial</u>		<u>Industrial</u>
Flow	\$12,131,203.00		\$11,824,149.00		\$307,054.00
BOD	15,869,848.50		12,629,362.00		3,240,486.50
Suspended Solids	8,188,569.50		7,860,667.00		327,902.50
	<u>\$36,189,621.00</u>		<u>\$32,314,178.00</u>		<u>\$3,875,443.00</u>
	100.000000%		89.29128600%		10.70871400%

Elizabeth Contribution

Flow	-	5,316.3410	MG/Yr.
BOD	-	7,418.6037	Tons/Yr.
TSS	-	3,419.5899	Tons/Yr.

Trunk Sewer Flow¹

	<u>Total for 2021</u>		<u>Domestic & Commercial</u>		<u>Industrial</u>
	14,733.0320	MG/Yr. ²	14,386.5970	MG/Yr.	346.435 MG/Yr.

(1) Based upon data from November 1, 2019 thru October 31, 2020 (366 days)

(2) (20,049.373 - 5,316.3410)

COST ALLOCATION

\$1,516,978.00	\$1,481,307.52	\$35,670.48
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Member municipalities will be assessed \$9.27 (\$1,481,307.52/159,839) for trunk sewer O&M per equivalent dwelling unit.

The estimated cost for treating industrial wastes has been determined to be \$605.07 per MG for flow, \$837.62 per ton of BOD, and \$526.14 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	\$307,054.00	/	507.4710	=	\$605.0670876	/MG
BOD	\$3,240,486.50	/	3,868.7021	=	\$837.6159303	/Ton
Suspended Solids	\$327,902.50	/	623.2216	=	\$526.1410692	/Ton

All industries within the member municipalities (excluding Elizabeth) will be required to pay an additional \$102.96/MG of flow for trunk sewer use (\$35,670.48/346.435 = \$102.964/MG). This brings the total flow cost to \$708.03/MG (\$605.067 + \$102.964) for the indicated industries of member municipalities.

Based upon the user charges for 2021, 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 2020 industrial waste survey of the service area. These are estimates for 2021 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 \$37,711,600.00 for 2021. 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 32.6602293% 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 Elmora 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
2021

<u>Municipality</u>	<u>Dwelling Units ¹</u>	<u>User Charges Industrial</u>
East Orange	8,018	\$ -
Hillside	8,569	1,188,220
Irvington	26,712	527,099
Maplewood	9,890	13,133
Millburn	9,968 ⁴	-
Newark	23,355	-
Roselle Park	4,760	502
South Orange	8,329	-
Summit	14,487 ²	41,488 ³
Union	25,161	590,322
West Orange	20,590	-
Elizabeth	47,181	1,550,351
	<u>207,020</u>	<u>\$ 3,911,115</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 (3675)

(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 11/1/2019-10/31/2020 and Projected Contribution for 2021

Flow:	Treatment Plant	Elizabeth Pumping Station		Joint Meeting	
	20,049.373 MG	5,316.341 MG		14,733.032 MG	
		<i>Industrial</i>	<i>D&C</i>	<i>Industrial</i>	<i>D&C</i>
		148.054	5,168.287	346.435	14,386.597
		\$ 89,582.60	\$ 3,127,160.36	\$ 245,286.90	\$ 10,186,164.01
Unit Charge \$ 605.0670876 Per MG for Elizabeth					
Unit Charge \$ 708.0315109 Per MG for Joint Meeting					
BOD:	18,946.4497 Tons	7,418.6037 Tons		11,527.8460 Tons	
		<i>Industrial</i>	<i>D&C</i>	<i>Industrial</i>	<i>D&C</i>
		1,559.0341	5,859.5696	2,261.65029	9,266.19571
		\$ 1,305,871.80	\$ 4,908,068.84	\$ 1,894,394.31	
Unit Charge	\$837.6159303 Per Ton				
TSS:	15,563.4582 Tons	3,419.5899 Tons		12,143.8683 Tons	
		<i>Industrial</i>	<i>D&C</i>	<i>Industrial</i>	<i>D&C</i>
		194.2022	3,225.3877	420.19544	11,723.67286
		\$ 102,177.75	\$ 1,697,008.93	\$ 221,082.08	
Unit Charge	\$526.1410692 Per Ton				
			\$ 11,229,870.28	\$ 2,360,763.29	

City of Elizabeth (Contribution from Pumping Station) \$ 11,229,870.28

City of Elizabeth (Industry Tributary to Joint Meeting Trunk)

Flow:	12.9820 MG/Year at	\$ 605.0670876	7,854.98
BOD:	48.0177 Tons/Year at	837.6159303	40,220.39
TSS:	8.824 Tons/Year at	526.1410692	4,642.67

Joint Meeting Industrial	2,360,763.29
Subtotal	\$ 13,643,351.61

Total 2021 Budget	\$ 37,711,599.00
Subtotal (above)	(13,643,351.61)
Subtotal (EDU's)	\$ 24,068,247.39

Joint Meeting EDU's (X + Y) + Elmora EDU's (X) = \$ 24,068,247
 (Y = Additional Assessment to Member Municipalities for Trunk Sewer O&M)
 159,839 (X + \$9.267497419) + 3905 (X) = \$ 24,068,247

Equivalent Units-Member Municipalities 159,839

Elmora EDU's = 3,905 \$ 137.9405649670 Per Unit = X
 \$ 147.2080623860 Per Unit = X+Y

Joint Meeting EDU Assessment \$ 23,529,589.48
 Elmora Area Assessment \$ 538,657.91

Total Anticipated Payment from the City of Elizabeth

Pumping Station \$ 11,229,870.28

Elmora EDU's 538,657.91

Elmora Industrial 52,718.04

\$ 11,821,246.23

Total Anticipated Payment from Member Municipalities

EDU's 23,529,589.48

Industrial 2,360,763.29

\$ 25,890,352.77

Estimated Percent Contribution of Treatment Plant, Sludge Dewatering and Sludge Drying Facility Budgets by
 City of Elizabeth

\$ 11,821,246.23 / \$ 36,194,621.00 = 32.6602293%

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		Base Year - 1982 Phase IIB - SSES ²		Base Year - 1982 Phase IIB - SSES ²	
			Infiltration (GPD) ³	(Percent)	SSES - November 2020 (GPD) ⁴	(Percent)	Inflow (GPD)	(Percent)	SSES - November 2020 (GPD) ⁵	(Percent)
East Orange	5.50	4.88%	70,747	2.11%	33,603	2.21%	3,007,440	5.79%	285,238	0.65%
Hillside	12.20	10.83%	79,012	2.36%	25,088	1.65%	1,185,120	2.28%	1,540,287	3.51%
Irvington	18.61	16.52%	1,115,672	33.31%	32,980	39.63%	8,612,640	16.57%	8,816,057	20.09%
Maplewood	7.08	6.29%	389,078	11.62%	602,571	9.89%	5,449,680	10.48%	6,782,445	5.62%
Millburn	6.00	5.33%	191,609	5.72%	150,377	7.64%	2,729,520	5.25%	2,466,214	6.91%
Newark	15.50	13.76%	234,484	7.00%	197,233	9.41%	1,959,540	3.77%	3,032,302	5.67%
Roselle Park	9.44	8.38%	106,187	3.17%	143,078	3.27%	1,576,080	3.03%	2,488,155	4.67%
South Orange	7.00	6.22%	410,876	12.27%	65,147	4.21%	2,183,760	4.20%	2,049,327	5.22%
Summit	7.50	6.66%	171,657	5.13%	64,013	7.02%	3,651,120	7.02%	2,290,683	4.75%
Union	10.30	9.14%	329,127	9.83%	49,568	27.96%	14,534,640	27.96%	2,084,434	23.93%
West Orange	13.50	11.99%	250,811	7.48%	178,810	13.65%	7,097,040	13.65%	10,501,157	18.98%
	112.63	100.00%	3,349,260	100.00%	1,520,645	100.01%	51,986,580	100.00%	43,882,813	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) 2020 - Infiltration related to base year total = 1.994 MGD / 52.79 MGD = 3.77723054%

- Adjusted for period 11/1/2019 - 10/31/2020; (3.77723054% x 14,733.0320 = 556.5 MG / Year / 366 = 1,520,645 GPD)

(5) 2020 inflow adjusted for period 11/1/2019 - 10/31/2020 - (43.17" / 33.22") x (33,768,520) = 43,882,813 GPD

Table IV - A
Joint Meeting of Essex and Union Counties
Adjusted 2020 - Summary of Infiltration and Inflow

Municipality	Phase IIB SSES Infiltration (GPD)	2019 Infiltration (GPD)	2020 Infiltration Removed (GPD)	2020 Infiltration (GPD)	Phase IIB SSES Inflow (GPD)	2019 Inflow (GPD)	2020 Inflow Removed (GPD)	2020 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	1,792,800	30,960	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	8,229,600	150,320	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	33,949,800	181,280	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			14,733.0320 MG		14,386.5970 MG		346.4350 MG
			\$9,845,057.47		\$9,599,770.57		
							\$245,286.90
Infiltration	3.7772305%		556.50		543.41	\$362,602.17	13.09
Inflow	12.0842064%		1,780.37		1,738.51	\$1,160,058.71	41.86
BOD	at	\$837.6159303 Per Ton	11,527.8460 Tons		9,266.1957 Tons		2,261.6503 Tons
			\$9,655,907.45		\$7,761,513.14		\$1,894,394.31
TSS	at	\$526.1410692 Per Ton	12,143.8683 Tons		11,723.6729 Tons		420.1954 Tons
			\$6,389,387.85		\$6,168,305.77		\$221,082.08
Total			\$25,890,352.77 ¹		\$23,529,589.48		\$2,360,763.29

(1) Amount anticipated from Members after allocation of 32.6602293% to City of Elizabeth \$ 11,821,246.23

"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)

"2019 - 2020"

Infiltration: 1.994 MGD/52.79MGD = 3.77723054% X 14,733.0320 556.5 MG / Year
(November 1, 2019 - October 31, 2020)

Inflow: Rainfall = 43.17 Inches X 50 MG X 82.482% 1,780.37 MG / Year

Total D&C	\$23,529,589.48
Less: Infiltration	(362,602.17)
Less: Inflow	(1,160,058.71)
Net after infiltration and inflow	\$22,006,928.60
Equivalent Dwelling Units	159,839
User Charge Per Unit	\$137.68184610765

Table VI
Joint Meeting of Essex and Union Counties
Estimated Annual Operation Expenses To Member Municipalities
2021

Domestic & Commercial								
Municipality	Dwelling Units	User Charge	Infiltration		Inflow		Total Cost	Unit Cost
		\$ 137.68184611 Per Unit	Percent ¹	Amount	Percent ²	Amount		
East Orange	8,018	\$1,103,933.04	2.21%	\$8,013.51	0.65%	\$7,540.38	\$1,119,486.93	\$139.6217
Hillside	8,569	1,179,795.74	1.65%	5,982.94	3.51%	40,718.06	1,226,496.74	143.1318
Irvington	26,712	3,677,757.47	39.63%	143,699.24	20.09%	233,055.79	4,054,512.50	151.7862
Maplewood	9,890	1,361,673.46	9.89%	35,861.35	5.62%	65,195.30	1,462,730.11	147.8999
Millburn	9,968 ³	1,372,412.64	7.64%	27,702.81	6.91%	80,160.06	1,480,275.51	148.5028
Newark	23,355	3,215,559.52	9.41%	34,120.86	5.67%	65,775.33	3,315,455.71	141.9591
Roselle Park	4,760	655,365.59	3.27%	11,857.09	4.67%	54,174.74	721,397.42	151.5541
South Orange	8,329	1,146,752.10	4.21%	15,265.55	5.22%	60,555.06	1,222,572.71	146.7851
Summit	14,487 ⁴	1,994,596.90	3.26%	11,820.83	4.75%	55,102.79	2,061,520.52	142.3014
Union	25,161	3,464,212.93	11.76%	42,642.02	23.93%	277,602.05	3,784,457.00	150.4096
West Orange	20,590	2,834,869.21	7.08%	25,672.23	18.98%	220,179.14	3,080,720.58	149.6222
	159,839	\$22,006,928.60	100.01%	\$362,638.43	100.00%	\$1,160,058.70	\$23,529,625.73	\$147.2083

(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 (3695)

\$145.3391 2020
\$150.2422 2019
\$143.4346 2018
\$136.1075 2017

Table VI (Continued)
Joint Meeting of Essex and Union Counties
Estimated Annual Operation Expenses To Member Municipalities
2021

Industrial										
Municipality	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 12.084206%			Total
East Orange	0.0000	\$0.00	0.0000	\$0.00	0.00	0.00	0.00	0.00	\$0.00	\$0.00
Hillside	1,171.2140	981,027.50	208.4706	109,684.94	115.87	5.20	16.64	137.72	97,507.27	1,188,219.71
Irvington	578.1409	484,260.03	16.4960	8,679.22	40.59	1.82	5.83	48.25	34,159.69	527,098.94
Maplewood	7.5378	6,313.79	3.4658	1,823.47	5.94	0.27	0.85	7.06	4,995.87	13,133.13
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	0.0932	78.08	0.1520	79.97	0.41	0.02	0.06	0.49	344.10	502.15
South Orange	0.0000	0.00	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Summit ⁴	7.9335	6,645.19	6.4540	3,395.71	37.37	1.68	5.37	44.41	31,446.51	41,487.41
Union	496.7309	416,069.71	185.1571	97,418.75	91.31	4.10	13.11	108.52	76,833.46	590,321.92
West Orange	0.0000	0.00	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2,261.6503	\$1,894,394.30	420.1954	\$221,082.06	291.49	13.09	41.86	346.44	\$245,286.90	\$2,360,763.26

(1) At \$837.6159303/Ton

(2) At \$526.1410692/Ton

(3) At \$708.0315109/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
2021

Domestic & Commercial					
Municipality	Total Assessments ¹	User Charge Domestic Sewage 137.6818461	User Charges Industrial	Infiltration / Inflow Charges	Assessment Percentage
East Orange	\$1,119,486.93	\$1,103,933.04	\$0.00	\$15,553.89	4.3239%
Hillside	2,414,716.45	1,179,795.74	1,188,219.71	46,701.00	9.3267%
Irvington	4,581,611.44	3,677,757.47	527,098.94	376,755.03	17.6962%
Maplewood	1,475,863.24	1,361,673.46	13,133.13	101,056.65	5.7004%
Millburn	1,480,275.51	1,372,412.64	0.00	107,862.87	5.7175%
Newark	3,315,455.71	3,215,559.52	0.00	99,896.19	12.8057%
Roselle Park	721,899.57	655,365.59	502.15	66,031.83	2.7883%
South Orange	1,222,572.71	1,146,752.10	0.00	75,820.61	4.7221%
Summit	2,103,007.93	1,994,596.90	41,487.41	66,923.62	8.1227%
Union	4,374,778.92	3,464,212.93	590,321.92	320,244.07	16.8973%
West Orange	<u>3,080,720.58</u>	<u>2,834,869.21</u>	<u>0.00</u>	<u>245,851.37</u>	<u>11.8992%</u>
	\$25,890,388.99	\$22,006,928.60	\$2,360,763.26	\$1,522,697.13	100.0000%
Elizabeth	11,821,211.01				
Total	<u><u>\$37,711,600.00</u></u>				

(1) Reflects anticipated payment of \$11,821,211.01 from the City of Elizabeth which is 32.6602293% of allocation from Treatment Plant, Sludge Dewatering, and Sludge Drying budget. Exact 2021 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 2021 Assessment with 2020 Assessment

Municipality	2020	2021		Comparison	
				Amount	Percentage
East Orange	\$1,097,413.69	\$1,119,486.93	(+)	\$22,073.24	2.01%
Hillside	1,982,019.37	2,414,716.45	(+)	432,697.08	21.83%
Irvington	4,635,227.27	4,581,611.44	(-)	(53,615.83)	-1.16%
Maplewood	1,472,677.44	1,475,863.24	(+)	3,185.80	0.22%
Millburn	1,457,505.53	1,480,275.51	(+)	22,769.98	1.56%
Newark	2,455,176.04	3,315,455.71	(+)	860,279.67	35.04%
Roselle Park	711,194.17	721,899.57	(+)	10,705.40	1.51%
South Orange	1,200,023.00	1,222,572.71	(+)	22,549.71	1.88%
Summit	2,076,863.80	2,103,007.93	(+)	26,144.13	1.26%
Union	4,289,124.85	4,374,778.92	(+)	85,654.07	2.00%
West Orange	3,038,016.12	3,080,720.58	(+)	42,704.46	1.41%
	<u>\$24,415,241.28</u>	<u>\$25,890,388.99</u>	(+)	<u>\$1,475,147.71</u>	<u>6.04%</u>
Elizabeth	12,742,904.76	11,821,211.01	(-)	\$ (921,693.75)	-7.23%
Total	<u>\$37,158,146.04</u>	<u>\$37,711,600.00</u>	<u>(+)</u>	<u>\$553,453.96</u>	<u>1.49%</u>

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

City of Elizabeth percentage

2017	31.53144370%
2018	31.77668480%
2019	32.79334100%
2020	35.79934530%

Table III, IV, V, VI, and VII, have been prepared to reflect the Domestic Sewer Usage and Industrial User assessment to each municipality for 2021 as a result of the Agreement with the City of Elizabeth which requires 32.6602293% of the 2021 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 32.6602293% 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 2021 are apportioned as follows:

	<u>2021</u>	<u>2020</u>		<u>2021</u>	<u>2020</u>
East Orange	4.3239%	4.4948%	Roselle Park	2.7883%	2.9129%
Hillside	9.3267%	8.1180%	South Orange	4.7221%	4.9151%
Irvington	17.6962%	18.9850%	Summit	8.1227%	8.5064%
Maplewood	5.7004%	6.0318%	Union	16.8973%	17.5674%
Millburn	5.7175%	5.9697%	West Orange	11.8992%	12.4430%
Newark	12.8057%	10.0559%	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
2021 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	80,000	73,000	3,000	-	156,000
Chemicals	3,467,700	940,150	6,800	9,000	4,423,650
Sludge Disposal	-	3,600,000	-	-	3,600,000
Insurance	688,392	137,678	64,250	27,536	917,856
Administration	3,086,755	1,756,847	10,000	338,593	5,192,195
Labor	5,682,913	1,001,922	135,037	344,692	7,164,564
Benefits	4,764,804	866,402	109,621	89,907	5,830,734
Equipment	289,500	62,000	-	-	351,500
Printing & Stationery	17,000	2,000	-	1,000	20,000
Maintenance, Supplies & Spare Parts	1,941,000	571,750	5,000	611,250	3,129,000
Screening Disposal	262,000	-	-	-	262,000
Reserve Contingency	200,000	-	-	-	200,000
Miscellaneous Expenses	390,000	100,000	-	60,000	550,000
Technical & Professional Services	1,036,000	50,000	-	25,000	1,111,000
Replacement Fund	2,000,000	-	-	-	2,000,000
NJPDES & Miscellaneous Permit Fee	775,000	20,000	-	10,000	805,000
	\$ 26,451,064	\$ 9,409,849	\$ 333,708	\$ 1,516,978	\$ 37,711,599
	70.14%	24.95%	0.88%	4.03%	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	\$ 5,511,092	80%	\$ 4,408,874	10%	\$ 551,109	10%	\$ 551,109
Power	900,000	40%	\$ 360,000	5%	\$ 45,000	55%	\$ 495,000
Chlorine	1,700,000	40%	\$ 680,000			60%	\$ 1,020,000
Maintenance, Equipment, Supplies, Spare Parts, & Replacement Fund	4,430,500	28%	\$ 1,240,540	27%	\$ 1,196,235	45%	\$ 1,993,725
Fuel, Oil & Kerosene	70,000	40%	\$ 28,000	30%	\$ 21,000	30%	\$ 21,000
Administration, Labor & Benefits (Payroll Retirement)	13,534,472	40%	5,413,789	10%	\$ 1,353,447	50%	\$ 6,767,236
Sludge Processing 2	300,000			50%	\$ 150,000	50%	\$ 150,000
Total	\$26,446,064	100%	\$ 12,131,203		\$ 3,316,791		\$ 10,998,070
			45.8714877%		12.5417189%		41.5867934%

(1) General Expenditures
(From the Approved Budget)

(2) Sludge Processing

Insurance	\$ 688,392	Polymer	\$ 250,000
Technical & Professional Services	1,036,000	K2MnO4	50,000
Stationery & Printing	17,000		
Gas	800,000		
Water	80,000		
Miscellaneous	390,000		
Service Contracts	262,000		
Permit Fees	775,000		
Sodium Bisulfite & Misc. Chemicals	1,462,700		
	<u>\$5,511,092</u>		<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	\$ 26,446,064	\$ 12,131,203	\$ 3,316,791	\$10,998,070
Dewatering Facility	9,409,849		4,704,925	4,704,925
Drying Facility	333,708		166,854	166,854
	<u>\$ 36,189,621</u>	<u>\$ 12,131,203</u>	<u>\$ 8,188,570</u>	<u>\$15,869,849</u>
Subtotal	100.00%	33.5212215%	22.6268451%	43.8519334%
Sewers 1	\$ 1,516,978			
Total	<u>\$ 37,711,600</u>			

(1) Joint Meeting Members Only

JOINT MEETING OF ESSEX & UNION COUNTIES

**INDUSTRIAL USER CHARGE - 2021
SUMMARY**

MUNICIPALITY	FLOW (MG)	LOADINGS	
		BOD (tons)	TSS (tons)
HILLSIDE	137.716	1171.214	208.4706
IRVINGTON	48.246	578.1409	16.4960
MAPLEWOOD	7.056	7.53781	3.46575
MURRAY HILL	14.444	0.12046	0.60231
ROSELLE PARK	0.486	0.09322	0.15200
SUMMIT	29.970	7.81300	5.85168
UNION	108.517	496.7309	185.1571
<i>MEMBERS TOTAL</i>	346.435	2261.650	420.1954
<i>ELIZABETH</i>	161.036	1607.052	203.0262
GRAND TOTAL	507.471	3868.70181246	623.22158289

MUNICIPALITY	FLOW	COSTS		TOTAL
		BOD	TSS	
HILLSIDE	\$97,507.27	\$981,027.37	\$109,684.94	\$1,188,219.57
IRVINGTON	\$34,159.69	\$484,259.99	\$8,679.23	\$527,098.91
MAPLEWOOD	\$4,995.87	\$6,313.79	\$1,823.47	\$13,133.13
MURRAY HILL	\$10,226.81	\$100.90	\$316.90	\$10,644.61
ROSELLE PARK	\$344.10	\$78.09	\$79.97	\$502.16
SUMMIT	\$21,219.70	\$6,544.29	\$3,078.81	\$30,842.80
UNION	\$76,833.46	\$416,069.68	\$97,418.75	\$590,321.88
<i>MEMBERS TOTAL</i>	\$245,286.90	\$1,894,394.11	\$221,082.06	\$2,360,763.07
<i>ELIZABETH</i>	\$97,437.58	\$1,346,092.16	\$106,820.41	\$1,550,350.15
GRAND TOTAL	\$342,724.48	\$3,240,486.27	\$327,902.47	\$3,911,113.22

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2021
COST FACTORS

	FLOW	BOD	TSS
MEMBER MUNICIPALITIES	\$708.0315109	\$837.6159303	\$526.1410692
ELIZABETH	\$605.0670876	\$837.6159303	\$526.1410692

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2021

Municipality: HILLSIDE

IU #	INDUSTRY	SITE	Concentration		FLOW (MG)	Cost Factors			ANNUAL PAYMENT
			BOD (mg/l)	TSS (mg/l)		Flow per MG \$708.0315109	BOD per Ton \$837.6159303	TSS per Ton \$526.1410692	
1042	*GEC Marconi / BAE	1					0.0000	0.0000	
	Totals:						0.0000	0.0000	
	Cost Analysis:				\$0.00		\$0.00	\$0.00	\$0.00
1050	Manhattan Drug Co.	4	365	310	0.608		0.9254	0.7860	
	Totals:				0.608		0.9254	0.7860	
	Cost Analysis:				\$430.48		\$775.14	\$413.53	\$1,619.14 10-Nov
1094	AAK Foodservice	3	5762	3890	9.299		223.4321	150.8419	
	(Formerly Oasis Foods)	99	233	190	1.466		1.4244	1.1615	
	Totals:				10.765		224.8565	152.0034	
	Cost Analysis:				\$7,621.96		\$188,343.37	\$79,975.22	\$275,940.55 10-Nov
1090	Union Beverage	1	1823	102	119.395		907.6300	50.7835	
		99	233	190	1.476		1.4341	1.1694	
	Totals:				120.871		909.0641	51.9529	
	Cost Analysis:				\$85,580.48		\$761,446.61	\$27,334.56	\$874,361.64 10-Nov
1091	Hillside Beverage	2	2796	138	2.653		30.9322	1.5267	
		99	233	190	0.086		0.0836	0.0681	
	Totals:				2.739		31.0157	1.5948	
	Cost Analysis:				\$1,939.30		\$25,979.27	\$839.11	\$28,757.68 10-Nov
1092	A&H Products	1	487	187	2.546		5.1704	1.9853	
		99	233	190	0.187		0.1817	0.1482	
	Totals:				2.733		5.3521	2.1335	
	Cost Analysis:				\$1,935.05		\$4,482.99	\$1,122.52	\$7,540.56 10-Nov
1093	**Sam Hak Foods	1	0	0	0.000		0.0000	0.0000	
		99	0	0	0		0.0000	0.0000	
	Totals:				0.000		0.0000	0.0000	
	Cost Analysis:				\$0.00		\$0.00	\$0.00	\$0.00
HILLSIDE TOTALS					137.7160		1,171.2138	208.4706	
					\$97,507.27		\$981,027.37	\$109,684.94	\$1,188,219.57

*GEC Marconi/BAE - Did not discharge during this Assessment period.

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

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2021

Municipality: IRVINGTON

IU #	Cost Factors	SITE	Concentration		Cost Factors			ANNUAL PAYMENT	
					Flow per MG	BOD per Ton	TSS per Ton		
					\$708.0315109	\$837.6159303	\$526.1410692		
			BOD (mg/l)	TSS (mg/l)	FLOW (MG)	BOD (Tons)	TSS (Tons)		
2066	Wayne County Foods	1	2414	86	0.156	1.5704	0.0559		
		99	233	190	0.093	0.0904	0.0737		
		Totals:			0.249	1.6607	0.1296		
	Cost Analysis:			\$176.30	\$1,391.04	\$68.20	\$1,635.54	10-Nov	
2072	Clean-Tex Services	1	173	61	22.701	16.3767	5.7745		
		99	233	190	0.557	0.5412	0.4413		
		Totals:			23.258	16.9179	6.2158		
	Cost Analysis:			\$16,467.40	\$14,170.72	\$3,270.37	\$33,908.48	10-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	10	3	0.358	0.0149	0.0045	
99			233	190	0.132	0.1283	0.1046		
Totals:					0.490	0.1432	0.1091		
Cost Analysis:				\$346.94	\$119.93	\$57.38	\$524.25	10-Nov	
3050	Maplewood Beverage	2	5667	97	23.648	558.8351	9.5654		
		99	233	190	0.601	0.5839	0.4762		
		Totals:			24.249	559.4190	10.0416		
	Cost Analysis:			\$17,169.06	\$468,578.31	\$5,283.27	\$491,030.64	10-Nov	
IRVINGTON TOTALS					48.2460	578.1409	16.4960		
					\$34,159.69	\$484,259.99	\$8,679.23	\$527,098.91	

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

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2021

Municipality: MAPLEWOOD

					Cost Factors				
			Concentration		Flow per MG	BOD per Ton	TSS per Ton		
					\$708.0315109	\$837.6159303	\$526.1410692		
IU #	INDUSTRY	SITE	BOD (mg/l)	TSS (mg/l)	FLOW (MG)	BOD (Tons)	TSS (Tons)	ANNUAL PAYMENT	
3020	Gleason Cleaners	1	208	40	0.248	0.2151	0.0414		
		99	233	190	0.074	0.0719	0.0586		
	Totals:				0.322	0.2870	0.1000		
	Cost Analysis:				\$227.99	\$240.40	\$52.61	\$521.00	10-Nov
3033	NJ Transit - Hilton Gar.	3a	209	174	2.188	1.9069	1.5876		
		4	423	149	2.518	4.4415	1.5645		
	Totals:				4.706	6.3484	3.1521		
	Cost Analysis:				\$3,332.00	\$5,317.55	\$1,658.44	\$10,307.98	10-Nov
3046	UniClean	1	95	10	1.856	0.7353	0.0774		
		99	233	190	0.172	0.1671	0.1363		
	Totals:				2.028	0.9024	0.2137		
	Cost Analysis:				\$1,435.89	\$755.84	\$112.42	\$2,304.15	10-Nov
MAPLEWOOD TOTALS					7.0560	7.5378	3.4657		
					\$4,995.87	\$6,313.79	\$1,823.47	\$13,133.13	

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2021

Municipality: MURRAY HILL

IU #	INDUSTRY	SITE	Concentration		Cost Factors			ANNUAL PAYMENT	
					Flow per MG	BOD per Ton	TSS per Ton		
					\$708.0315109	\$837.6159303	\$526.1410692		
			BOD (mg/l)	TSS (mg/l)	FLOW (MG)	BOD (Tons)	TSS (Tons)		
5010	Nokia	1	2	10	14.444	0.1205	0.6023		
	Totals:				14.444	0.1205	0.6023		
	Cost Analysis:				\$10,226.81	\$100.90	\$316.90	\$10,644.61	10-Nov
MURRAY HILL TOTALS					14.4440	0.1205	0.6023		
					\$10,226.81	\$100.90	\$316.90	\$10,644.61	

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2021

Municipality: ROSELLE PARK

IU #	INDUSTRY	SITE	Concentration		Cost Factors			ANNUAL PAYMENT	
					Flow per MG	BOD per Ton	TSS per Ton		
					\$708.0315109	\$837.6159303	\$526.1410692		
			BOD (mg/l)	TSS (mg/l)	FLOW (MG)	BOD (Tons)	TSS (Tons)		
6005	Hexacon Electric	2	46	75	0.486	0.0932	0.1520		
	Totals:				0.486	0.0932	0.1520		
	Cost Analysis:				\$344.10	\$78.09	\$79.97	\$502.16	10-Nov
ROSELLE PARK TOTALS					0.4860	0.0932	0.1520		
					\$344.10	\$78.09	\$79.97	\$502.16	

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2020

Municipality: SUMMIT

IU #	INDUSTRY	SITE	Concentration		Cost Factors			ANNUAL PAYMENT	
					Flow per MG \$708.0315109	BOD per Ton \$837.6159303	TSS per Ton \$526.1410692		
			BOD (mg/l)	TSS (mg/l)	FLOW (MG)	BOD (Tons)	TSS (Tons)		
5511	Novartis Groundwater	4	2	2	0.882	0.0074	0.0074		
	Totals:				0.882	0.0074	0.0074		
	Cost Analysis:				\$624.48	\$6.16	\$3.87	\$634.52	10-Nov
5514	Celgene West 556	03A	57	42	27.873	6.6251	4.8817		
		99	233	190	1.215	1.1805	0.9626		
	Totals:				29.088	7.8056	5.8443		
	Cost Analysis:				\$20,595.22	\$6,538.13	\$3,074.94	\$30,208.29	10-Nov
SUMMIT TOTALS					29.9700	7.8130	5.8517		
					\$21,219.70	\$6,544.29	\$3,078.81	\$30,842.80	

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2021

Municipality: UNION

IU #	INDUSTRY	SITE	Concentration		Cost Factors			ANNUAL PAYMENT	
			BOD (mg/l)	TSS (mg/l)	Flow per MG \$708.0315109	BOD per Ton \$837.6159303	TSS per Ton \$526.1410692		
7015	ACuPowder	3 (99) 4	233	190	0.016	0.0155	0.0127	\$2,638.77	10-Nov
			83	82	2.214	0.7663	0.7571		
					2.230	0.7818	0.7697		
					\$1,578.91	\$654.88	\$404.99		
7070	Durex	1	82	215	3.418	1.1688	3.0644	\$5,011.33	10-Nov
					3.418	1.1688	3.0644		
					\$2,420.05	\$978.96	\$1,612.31		
7077	Evoqua Water Tech	4	373	584	0.240	0.3733	0.5845	\$790.12	10-Nov
					0.240	0.3733	0.5845		
					\$169.93	\$312.68	\$307.51		
7080	Foremost Mfg	2	9	150	6.930	0.2601	4.3347	\$7,405.18	10-Nov
					6.930	0.2601	4.3347		
					\$4,906.66	\$217.85	\$2,280.67		
7092	International Paint	01A 99	1 233	2 190	10.476	0.0437	0.0874	\$7,540.61	10-Nov
					0.021	0.0204	0.0166		
					10.497	0.0641	0.1040		
					\$7,432.21	\$53.68	\$54.72		
7197	1011 Morris Avenue Urban Renewal	1	2	5	4.650	0.0388	0.0970	\$3,375.84	10-Nov
					4.650	0.0388	0.0970		
					\$3,292.35	\$32.48	\$51.01		
7191	Cintas (Location 111)	1	815	568	24.310	82.6188	57.5797	\$116,710.07	10-Nov
					24.310	82.6188	57.5797		
					\$17,212.25	\$69,202.78	\$30,295.04		
7192	*Toppan Merrill Corporation	1	0	0	0.000	0.0000	0.0000	\$0.00	
					0.000	0.0000	0.0000		
					\$0.00	\$0.00	\$0.00		
7193	Lioni Latticini	1 99	4378 233	755 190	9.541 0.386	174.1830 0.3750	30.0384 0.3058	\$169,206.55	10-Nov
					9.927	174.5580	30.3442		
					\$7,028.63	\$146,212.58	\$15,965.35		
7194	BASF Corporation	1 99	16 233	499 190	0.101 1.418	0.0067 1.3777	0.2102 1.1235	\$2,936.85	10-Nov
					1.519	1.3845	1.3336		
					\$1,075.50	\$1,159.66	\$701.69		
7195	Deep Foods	7	1374	494	40.336	231.1083	83.0914	\$270,133.80	17-Nov
		01 (99)	233	190	0.016	0.0155	0.0127		
		02 (99)	233	190	1.452	1.4108	1.1504		
		05 (99)	233	190	0.685	0.6656	0.5427		
		06 (99)	233	190	0.053	0.0515	0.0420		
					42.542	233.2517	84.8392		
					\$30,121.08	\$195,375.35	\$44,637.37		
7196	Cintas (Location 15F)	1 99	238 233	229 190	1.969 0.285	1.9542 0.2769	1.8803 0.2258		
					2.254	2.2311	2.1061		

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2021

Municipality: UNION

IU #	INDUSTRY	SITE	Concentration	BOD (mg/l)	TSS (mg/l)	Cost Factors			ANNUAL PAYMENT	
						Flow per MG	BOD per Ton	TSS per Ton		
						\$708.0315109	\$837.6159303	\$526.1410692		
						FLOW (MG)	BOD (Tons)	TSS (Tons)		
		Cost Analysis:				\$1,595.90	\$1,868.77	\$1,108.09	\$4,572.76	10-Nov
	UNION TOTALS					108.5170 \$76,833.46	496.7309 \$416,069.68	185.1571 \$97,418.75	\$590,321.88	

*Toppan Merrill Corp Ceased Industrial Wastewater Discharge In November 2019.

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2021

Municipality: ELIZABETH

IU #	INDUSTRY	SITE	Concentration		Cost Factors			ANNUAL PAYMENT	
					Flow per MG	BOD per Ton	TSS per Ton		
					\$605.0670876	\$837.6159303	\$526.1410692		
			BOD (mg/l)	TSS (mg/l)	FLOW (MG)	BOD (Tons)	TSS (Tons)		
0192	Prodalim USA (formerly Wild Flavors)	1	192	79	0.115	0.0921	0.0379		
	Totals:				0.115	0.0921	0.0379		
	Cost Analysis:				\$69.58	\$77.12	\$19.93	\$166.64	10-Nov
0037	Deb-EI Foods	2	3627	752	20.820	314.8940	65.2882		
		99	233	190	0.368	0.3576	0.2916		
	Totals:				21.188	315.2515	65.5798		
	Cost Analysis:				\$12,820.16	\$264,059.69	\$34,504.20	\$311,384.06	10-Nov
0062	Garcia Uniforms, Inc.	2	444	104	2.451	4.5380	1.0629		
		99	233	190	0.081	0.0787	0.0642		
	Totals:				2.532	4.6167	1.1271		
	Cost Analysis:				\$1,532.03	\$3,867.00	\$593.03	\$5,992.06	10-Nov
0193	Actavis	3	887	163	12.982	48.0177	8.8240		
	Totals:				12.982	48.0177	8.8240		
	Cost Analysis:				\$7,854.98	\$40,220.38	\$4,642.67	\$52,718.03	10-Nov
0070	LORCO	2	7906	100	18.166	598.8971	7.5752		
	Totals:				18.166	598.8971	7.5752		
	Cost Analysis:				\$10,991.65	\$501,645.71	\$3,985.64	\$516,622.99	10-Nov
0075	Mastercraft Electroplating	99	233	190	0.022	0.0214	0.0174		
	Totals:				0.022	0.0214	0.0174		
	Cost Analysis:				\$13.31	\$17.90	\$9.17	\$40.39	10-Nov
0093	The Mills at Jersey Gardens	4	7	22	7.309	0.2133	0.6705		
	Totals:				7.309	0.2133	0.6705		
	Cost Analysis:				\$4,422.44	\$178.71	\$352.79	\$4,953.93	10-Nov
0098	Olympia Trails	1	400	91	1.496	2.4953	0.5677		
		99	233	190	0.196	0.1904	0.1553		
	Totals:				1.692	2.6858	0.7230		
	Cost Analysis:				\$1,023.77	\$2,249.64	\$380.39	\$3,653.80	10-Nov
0100	Michaels Foods - North Avenue Facility	4	2844	393	30.396	360.4808	49.8133		
		4a	1612	147	2.991	20.1056	1.8335		
		4b	772	146	1.983	6.3838	1.2073		
		99	233	190	0.732	0.7112	0.5800		
	Totals:				36.102	387.6813	53.4340		
	Cost Analysis:				\$21,844.13	\$324,728.07	\$28,113.81	\$374,686.01	10-Nov

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2021

Municipality: ELIZABETH

IU #	INDUSTRY	SITE	Concentration		Cost Factors			ANNUAL PAYMENT	
					Flow per MG	BOD per Ton	TSS per Ton		
			BOD (mg/l)	TSS (mg/l)	\$605.0670876	\$837.6159303	\$526.1410692		
			BOD (mg/l)	TSS (mg/l)	FLOW (MG)	BOD (Tons)	TSS (Tons)		
0105	Michaels Foods - Papetti Plaza Facility	2	1272	275	36.328	192.6924	41.6591		
		2a	1004	154	4.755	19.9077	3.0536		
		2b	577	250	1.528	3.6765	1.5929		
		3	135	230	0.498	0.2803	0.4776		
		Totals:			43.109	216.5569	46.7833		
	Cost Analysis:				\$26,083.84	\$181,391.55	\$24,614.60	\$232,089.99	10-Nov
0148	Superior Powder Coating	1	157	63	2.393	1.5667	0.6287		
		99	233	190	0.797	0.7744	0.6315		
		Totals:			3.19	2.3410	1.2601		
		Cost Analysis:				\$1,930.16	\$1,960.90	\$663.01	\$4,554.07
	0195	Duro Hilex Poly LLC	1	501	258	2.612	5.4569	2.8101	
		2	161	209	1.776	1.1924	1.5478		
		3(99)	233	190	0.771	0.7491	0.6109		
	Totals:				5.159	7.3984	4.9688		
	Cost Analysis:				\$3,121.54	\$6,197.00	\$2,614.31	\$11,932.85	10-Nov
0165	Wakefern Food Corp.	2	176	346	1.039	0.7625	1.4991		
		3a	130	257	5.626	3.0499	6.0293		
		4	481	504	0.443	0.8886	0.9310		
		99 (7)	233	190	0.073	0.0709	0.0578		
		Totals:				7.181	4.7719	8.5173	
	Cost Analysis:				\$4,344.99	\$3,997.00	\$4,481.30	\$12,823.29	10-Nov
0178	Smithfield Packaged Meats	3	702	235	1.201	3.5157	1.1769		
		99	233	190	0.023	0.0223	0.0182		
		Totals:			1.224	3.5381	1.1951		
	Cost Analysis:				\$740.60	\$2,963.55	\$628.81	\$4,332.97	10-Nov
0189	Prince Donut Co.	3	4132	601	0.857	14.7665	2.1478		
		99	233	190	0.208	0.2021	0.1648		
		Totals:			1.065	14.9686	2.3126		
	Cost Analysis:				\$644.40	\$12,537.92	\$1,216.75	\$14,399.07	10-Nov
0194	**Erie Street	2				0.0000	0.0000		
		Totals:				0.0000	0.0000		
		Cost Analysis:				\$0.00	\$0.00	\$0.00	\$0.00
ELIZABETH TOTALS					161.0360	1,607.0518	203.0262		
					\$97,437.58	\$1,346,092.16	\$106,820.41	\$1,550,350.15	

* Erie Street Facility did not discharge during this Assessment period.