

December 16, 2016

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 2017

I present herewith the 82nd 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, 2015 through October 31, 2016. 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 2017. 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 2016, 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, 2015.

During 2016, 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 (2017) dwelling unit figures formulated by each municipality in 2016.

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, 2015, through October 31, 2016 and projected for a twelve (12) month period in 2017. 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 2017, 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, 2015, through October 31, 2016, and projected for 2017 and are based upon actual 2015-2016 operating statistics as well as a recent upgraded 2016 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	18,103.1810 MG/Year	49.4622 MGD
2.	BOD	16,484.2945 Tons/Year	90,078.1120 Lbs/Day
	TSS	13,849.7078 Tons/Year	75,681.4634 Lbs/Day
3.	Estimated Industrial Flow	527.9120 MG/Year	1.4424 MGD
4.	Estimated Industrial BOD	3,586.6994 Tons/Year	19,599.4503 Lbs/Day
5.	Estimated Industrial TSS	579.2168 Tons/Year	3,165.1191 Lbs/Day
6.	Estimated Total Operating Expenses in 2017		
			\$22,780,278 STP
			8,830,205 SDWF
			325,653 SDF
			1,079,666 Sewers
			<u>\$33,015,802</u> Total
7.	Estimated Total Dwelling Units in System		
			152,257 JM Members
			<u>47,181</u> Elizabeth
			199,438 Total

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

Flow	32.0993091%
BOD	44.5803838%
Suspended Solids	23.3203071%

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 2017 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 2017

Treatment Plant

	<u>Total for 2017</u>		<u>Domestic & Commercial</u>		<u>Industrial</u>	
Flow	18,103.1810	MG/Yr. ¹	17,575.2690	MG/Yr.	527.9120	MG/Yr.
BOD	16,484.2945	Tons/Yr. ¹	12,897.5951	Tons/Yr.	3,586.6994	Tons/Yr.
Suspended Solids	13,849.7078	Tons/Yr. ¹	13,270.4910	Tons/Yr.	579.2168	Tons/Yr.

(1) Based upon data from November 1, 2015 thru October 31, 2016 (366 days)

Cost Allocation

	<u>Total for 2017</u>		<u>Domestic & Commercial</u>		<u>Industrial</u>
Flow	\$10,251,279.00		\$9,952,339.00		\$298,940.00
BOD	14,237,252.00		11,139,470.00		3,097,782.00
Suspended Solids	7,447,605.00		7,136,134.00		311,471.00
	<u>\$31,936,136.00</u>		<u>\$28,227,943.00</u>		<u>\$3,708,193.00</u>
	100.000000%		88.38872370%		11.61127630%

Elizabeth Contribution

Flow	-	5,337.6550	MG/Yr.
BOD	-	5,421.4488	Tons/Yr.
TSS	-	3,353.4177	Tons/Yr.

Trunk Sewer Flow¹

	<u>Total for 2017</u>		<u>Domestic & Commercial</u>		<u>Industrial</u>	
	12,765.5260	MG/Yr. ²	12,407.1920	MG/Yr.	358.334	MG/Yr.

(1) Based upon data from November 1, 2015 thru October 31, 2016 (366 days)

(2) (18,103.181 - 5,337.6550)

COST ALLOCATION

\$1,079,666.00	\$1,049,359.29	\$30,306.71
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Member municipalities will be assessed \$6.89 (\$1,049,359.29/152,257) for trunk sewer O&M per equivalent dwelling unit.

The estimated cost for treating industrial wastes has been determined to be \$566.27 per MG for flow, \$863.69 per ton of BOD, and \$537.75 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	\$298,940.00	/	527.9120	=	\$566.2686205	/MG
BOD	\$3,097,782.00	/	3,586.6994	=	\$863.6859838	/Ton
Suspended Solids	\$311,471.00	/	579.2168	=	\$537.7451068	/Ton

All industries within the member municipalities (excluding Elizabeth) will be required to pay an additional \$84.58/MG of flow for trunk sewer use (\$30,306.71/358.334 = \$84.577/MG). This brings the total flow cost to \$650.85/MG (\$566.268 + \$84.577) for the indicated industries of member municipalities.

Based upon the user charges for 2017, 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 2016 industrial waste survey of the service area. These are estimates for 2017 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 \$33,015,802.00 for 2017. 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 31.5314437% 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
2017

<u>Municipality</u>	<u>Dwelling Units</u> ¹	<u>User Charges</u> <u>Industrial</u>
East Orange	7,215	\$ -
Hillside	8,556	615,269
Irvington	26,896	1,085,396
Maplewood	9,528	19,591
Millburn	9,836 ⁴	-
Newark	17,427	-
Roselle Park	4,752	739
South Orange	8,310	-
Summit	14,470 ²	86,352 ³
Union	25,095	415,244
West Orange	20,172	-
Elizabeth	47,181	1,515,910
	<u>199,438</u>	<u>\$ 3,738,501</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 (3827)

(3) Includes Murray Hill

(4) Includes Livingston (402)

Table III
Joint Meeting of Essex and Union Counties
Computation of Estimated Percent
Contribution By City of Elizabeth
For Period 11/1/2015-10/31/2016 and Projected Contribution for 2017

	Treatment Plant	Elizabeth Pumping Station		Joint Meeting	
Flow:	18,103.181 MG	5,337.655 MG		12,765.526 MG	
		<i>Industrial</i>	<i>D&C</i>	<i>Industrial</i>	<i>D&C</i>
		150.88	5,186.775	358.334	12,407.192
		\$ 85,438.61	\$ 2,937,107.92	\$ 233,220.01	\$ 8,075,162.95
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Unit Charge	\$ 566.2686205 Per MG for Elizabeth				
Unit Charge	\$ 650.8453283 Per MG for Joint Meeting				
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BOD:	16,484.2945 Tons	5,421.4488 Tons		11,062.8457 Tons	
		<i>Industrial</i>	<i>D&C</i>	<i>Industrial</i>	<i>D&C</i>
		1,468.2191	3,953.2297	2,072.3217	8,990.524
Unit Charge	\$863.6859838 Per Ton	\$ 1,268,080.26	\$ 3,414,349.08	\$ 1,789,835.21	
TSS:	13,849.7078 Tons	3,353.4177 Tons		10,496.2901 Tons	
		<i>Industrial</i>	<i>D&C</i>	<i>Industrial</i>	<i>D&C</i>
		195.8387	3,157.579	371.0587	10,125.2314
Unit Charge	\$537.7451068 Per Ton	\$ 105,311.30	\$ 1,697,972.66	\$ 199,535.00	
			<u>\$ 9,508,259.83</u>	<u>\$ 2,222,590.22</u>	

City of Elizabeth (Contribution from Pumping Station) \$ 9,508,259.83

City of Elizabeth (Industry Tributary to Joint Meeting Trunk)

Flow:	18.6980 MG/Year at	\$ 566.2686205	10,588.09
BOD:	46.1586 Tons/Year at	863.6859838	39,866.54
TSS:	12.3194 Tons/Year at	537.7451068	6,624.70

Joint Meeting Industrial	2,222,590.22
Subtotal	<u>\$ 11,787,929.38</u>

Total 2017 Budget	\$ 33,015,802.00
Subtotal (above)	(11,787,929.38)
Subtotal (EDU's)	<u>\$ 21,227,872.62</u>

Joint Meeting EDU's (X + Y) + Elmora EDU's (X) = \$ 21,227,873
 (Y = Additional Assessment to Member Municipalities for Trunk Sewer O&M)
 152,257 (X + \$6.892026573) + 3905 (X) = \$ 21,227,873

Equivalent Units-Member Municipalities 152,257

Elmora EDU's = 3,905 \$ 129.2152593460 Per Unit = X
 \$ 136.1072859190 Per Unit = X+Y

Joint Meeting EDU Assessment \$ 20,723,287.03
 Elmora Area Assessment \$ 504,585.59

Total Anticipated Payment from the City of Elizabeth

Pumping Station \$ 9,508,259.83
 Elmora EDU's 504,585.59
 Elmora Industrial 57,079.33
 \$ 10,069,924.75

Total Anticipated Payment from Member Municipalities

EDU's 20,723,287.03
 Industrial 2,222,590.22
 \$ 22,945,877.25

Estimated Percent Contribution of Treatment Plant, Sludge Dewatering and Sludge Drying Facility Budgets by
 City of Elizabeth
 \$ 10,069,924.75 / \$ 31,936,136.00 = 31.5314437%

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 2016 (GPD) ⁴	(Percent)	Inflow (GPD)	(Percent)	SSES - November 2016 (GPD) ⁵	(Percent)	
					29,115					219,396	
East Orange	5.50	4.88%	70,747	2.11%	44,022	2.21%	3,007,440	5.79%	218,160	0.64%	
					21,738				1,203,249		
Hillside	12.20	10.83%	79,012	2.36%	32,980	1.65%	1,185,120	2.28%	1,188,720	3.51%	
					522,098				7,678,856		
Irvington	18.61	16.52%	1,115,672	33.31%	790,023	39.63%	8,612,640	16.57%	7,594,605	22.40%	
					130,294				2,135,682		
Maplewood	7.08	6.29%	389,078	11.62%	197,233	9.89%	5,449,680	10.48%	2,113,200	6.23%	
					100,652				2,358,506		
Millburn	6.00	5.33%	191,609	5.72%	152,240	7.64%	2,729,520	5.25%	2,333,520	6.88%	
					123,970				1,936,854		
Newark	15.50	13.76%	234,484	7.00%	187,506	9.41%	1,959,540	3.77%	1,915,875	5.65%	
					43,080				1,594,048		
Roselle Park	9.44	8.38%	106,187	3.17%	65,147	3.27%	1,576,080	3.03%	1,576,080	4.65%	
					55,464				2,217,955		
South Orange	7.00	6.22%	410,876	12.27%	83,906	4.21%	2,183,760	4.20%	2,192,400	6.47%	
					42,948				1,621,473		
Summit	7.50	6.66%	171,657	5.13%	64,916	3.26%	3,651,120	7.02%	1,604,880	4.73%	
					154,930				8,426,173		
Union	10.30	9.14%	329,127	9.83%	234,523	11.76%	14,534,640	27.96%	8,331,840	24.58%	
					93,274				4,888,416		
West Orange	13.50	11.99%	250,811	7.48%	141,147	7.08%	7,097,040	13.65%	4,833,720	14.26%	
					1,317,563				34,280,608		
	112.63	100.00%	3,349,260	100.00%	1,993,643	100.01%	51,986,580	100.00%	33,903,000	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) 2016 - Infiltration related to base year total = 1.994 MGD / 52.79 MGD = 3.77723054%

- Adjusted for period 11/1/2015 - 10/31/2016; (3.77723054% x 12,765.5260 = 482.19 MG / Year / 366 = 1,317,563 GPD)

(5) 2016 inflow adjusted for period 11/1/2015 - 10/31/2016 - (33.59% / 33.22%) x (33,903,000) = 34,280,608 GPD

Table IV - A
Joint Meeting of Essex and Union Counties
Adjusted 2016 - Summary of Infiltration and Inflow

Municipality	Phase IIB SSES Infiltration (GPD)	2015 Infiltration (GPD)	2016 Infiltration Removed (GPD)	2016 Infiltration (GPD)	Phase IIB SSES Inflow (GPD)	2015 Inflow (GPD)	2016 Inflow Removed (GPD)	2016 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	1,188,720	-	1,188,720
Irvington	1,115,672	790,023	-	790,023	8,612,640	7,594,605	-	7,594,605
Maplewood	389,078	197,233	-	197,233	5,449,680	2,114,640	1,440	2,113,200
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	2,217,600	25,200	2,192,400
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	8,352,000	20,160	8,331,840
West Orange	250,811	141,147	-	141,147	7,097,040	4,833,720	-	4,833,720
Total	3,349,260	1,993,643	-	1,993,643	51,986,580	33,949,800	46,800	33,903,000

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		12,765.5260 MG \$7,746,723.83	12,407.1920 MG \$7,513,503.82	358.3340 MG \$233,220.01
Infiltration	3.7772305%	482.19	468.65	13.54
Inflow	10.8517268%	1,385.28	1,346.39	38.89
BOD	at \$863.6859838 Per Ton	11,062.8457 Tons \$9,554,824.77	8,990.5240 Tons \$7,764,989.57	2,072.3217 Tons \$1,789,835.21
TSS	at \$537.7451068 Per Ton	10,496.2901 Tons \$5,644,328.64	10,125.2314 Tons \$5,444,793.64	371.0587 Tons \$199,535.00
Total		\$22,945,877.24 ¹	\$20,723,287.03	\$2,222,590.22

(1) Amount anticipated from Members after allocation of 31.5314437% to City of Elizabeth \$ 10,069,924.75

"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)

"2015 - 2016"

Infiltration: 1.994 MGD/52.79MGD = 3.77723054% X 12,765.5260 482.18 MG / Year
(November 1, 2015 - October 31, 2016)

Inflow: Rainfall = 33.59 Inches X 50 MG X 82.482% 1,385.28 MG / Year

Total D&C	\$20,723,287.03
Less: Infiltration	(283,803.42)
Less: Inflow	(815,342.13)
Net after infiltration and inflow	<u>\$19,624,141.48</u>
Equivalent Dwelling Units	152,257
User Charge Per Unit	\$128.88827101545

Table VI
Joint Meeting of Essex and Union Counties
Estimated Annual Operation Expenses To Member Municipalities
2017

Domestic & Commercial									
Municipality	Dwelling Units	User Charge		Infiltration		Inflow		Total Cost	Unit Cost
		\$ 128.88827102 Per Unit	Percent¹	Amount	Percent²	Amount			
East Orange	7,215	\$929,928.88	2.21%	\$6,272.06	0.64%	\$5,218.19	\$941,419.13	\$130.4808	
Hillside	8,556	1,102,768.05	1.65%	4,682.76	3.51%	28,618.51	1,136,069.32	132.7804	
Irvington	26,896	3,466,578.94	39.63%	112,471.30	22.40%	182,636.64	3,761,686.88	139.8605	
Maplewood	9,528	1,228,047.45	9.89%	28,068.16	6.23%	50,795.81	1,306,911.42	137.1653	
Millburn	9,836 ³	1,267,745.03	7.64%	21,682.58	6.88%	56,095.54	1,345,523.15	136.7958	
Newark	17,427	2,246,135.90	9.41%	26,705.90	5.65%	46,066.83	2,318,908.63	133.0641	
Roselle Park	4,752	612,477.06	3.27%	9,280.37	4.65%	37,913.41	659,670.84	138.8196	
South Orange	8,310	1,071,061.53	4.21%	11,948.12	6.47%	52,752.64	1,135,762.29	136.6742	
Summit	14,470 ⁴	1,865,013.28	3.26%	9,251.99	4.73%	38,565.68	1,912,830.95	132.1929	
Union	25,095	3,234,451.16	11.76%	33,375.28	24.58%	200,411.10	3,468,237.54	138.2043	
West Orange	20,172	2,599,934.20	7.08%	20,093.28	14.26%	116,267.79	2,736,295.27	135.6482	
	152,257	\$19,624,141.48	100.01%	\$283,831.80	100.00%	\$815,342.14	\$20,723,315.42	\$136.1075	

(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 (402)

(4) Includes New Providence (3827)

\$137.9068 2016
 \$130.4775 2015
 \$122.1410 2014
 \$125.0975 2013

Table VI (Continued)
Joint Meeting of Essex and Union Counties
Estimated Annual Operation Expenses To Member Municipalities
2017

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 10.851727%			Total
East Orange	0.0000	\$0.00	0.0000	\$0.00	0.00	0.00	0.00	0.00	\$0.00	\$0.00
Hillside	581.8832	502,564.36	107.5909	57,856.48	71.95	3.18	9.15	84.27	54,848.69	615,269.53
Irvington	1,162.9845	1,004,453.41	46.2204	24,854.79	73.57	3.26	9.35	86.18	56,087.90	1,085,396.10
Maplewood	10.4928	9,062.48	6.3745	3,427.86	9.31	0.41	1.18	10.91	7,100.72	19,591.06
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	0.1746	150.80	0.2198	118.20	0.62	0.03	0.08	0.72	469.91	738.91
South Orange	0.0000	0.00	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Summit ⁴	23.1619	20,004.61	52.8598	28,425.10	49.74	2.20	6.32	58.27	37,922.15	86,351.86
Union	293.6247	253,599.54	157.7933	84,852.57	100.73	4.46	12.80	117.99	76,790.64	415,242.75
West Orange	0.0000	0.00	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2,072.3217	\$1,789,835.20	371.0587	\$199,535.00	305.91	13.54	38.89	358.33	\$233,220.01	\$2,222,590.21

(1) At \$863.6859838/Ton

(2) At \$537.7451068/Ton

(3) At \$650.8453283/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
2017

Domestic & Commercial					
Municipality	Total Assessments ¹	User Charge Domestic Sewage 128.888271	User Charges Industrial	Infiltration / Inflow Charges	Assessment Percentage
East Orange	\$941,419.13	\$929,928.88	\$0.00	\$11,490.25	4.1028%
Hillside	1,751,338.85	1,102,768.05	615,269.53	33,301.27	7.6325%
Irvington	4,847,082.98	3,466,578.94	1,085,396.10	295,107.94	21.1240%
Maplewood	1,326,502.48	1,228,047.45	19,591.06	78,863.97	5.7810%
Millburn	1,345,523.15	1,267,745.03	0.00	77,778.12	5.8639%
Newark	2,318,908.63	2,246,135.90	0.00	72,772.73	10.1060%
Roselle Park	660,409.75	612,477.06	738.91	47,193.78	2.8781%
South Orange	1,135,762.29	1,071,061.53	0.00	64,700.76	4.9497%
Summit	1,999,182.81	1,865,013.28	86,351.86	47,817.67	8.7126%
Union	3,883,480.29	3,234,451.16	415,242.75	233,786.38	16.9245%
West Orange	2,736,295.27	2,599,934.20	0.00	136,361.07	11.9249%
	<u>\$22,945,905.63</u>	<u>\$19,624,141.48</u>	<u>\$2,222,590.21</u>	<u>\$1,099,173.94</u>	<u>100.0000%</u>
Elizabeth	10,069,896.37				
Total	<u><u>\$33,015,802.00</u></u>				

(1) Reflects anticipated payment of \$10,069,896.37 from the City of Elizabeth which is 31.5314437% of allocation from Treatment Plant, Sludge Dewatering, and Sludge Drying budget. Exact 2017 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 2017 Assessment with 2016 Assessment

Municipality	2016	2017		Comparison	
				Amount	Percentage
East Orange	\$952,939.01	\$941,419.13	(-)	(\$11,519.88)	-1.21%
Hillside	1,690,105.33	1,751,338.85	(+)	61,233.52	3.62%
Irvington	4,619,033.70	4,847,082.98	(+)	228,049.28	4.94%
Maplewood	1,334,898.09	1,326,502.48	(-)	(8,395.61)	-0.63%
Millburn	1,357,796.46	1,345,523.15	(-)	(12,273.31)	-0.90%
Newark	2,341,415.54	2,318,908.63	(-)	(22,506.91)	-0.96%
Roselle Park	662,293.81	660,409.75	(-)	(1,884.06)	-0.28%
South Orange	1,105,751.60	1,135,762.29	(+)	30,010.69	2.71%
Summit	1,956,331.75	1,999,182.81	(+)	42,851.06	2.19%
Union	3,938,700.11	3,883,480.29	(-)	(55,219.82)	-1.40%
West Orange	2,787,643.14	2,736,295.27	(-)	(51,347.87)	-1.84%
	<u>\$22,746,908.54</u>	<u>\$22,945,905.63</u>	(+)	<u>\$198,997.09</u>	<u>0.87%</u>
Elizabeth	8,705,081.46	10,069,896.37	(+)	\$ 1,364,814.91	15.68%
Total	<u>\$31,451,990.00</u>	<u>\$33,015,802.00</u>	(+)	<u>\$1,563,812.00</u>	<u>4.97%</u>

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

City of Elizabeth percentage	
2013	35.50582060%
2014	34.17652380%
2015	30.67912420%
2016	28.64359670%


Table III, IV, V, VI, and VII, have been prepared to reflect the Domestic Sewer Usage and Industrial User assessment to each municipality for 2017 as a result of the Agreement with the City of Elizabeth which requires 31.5314437% of the 2017 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 31.5314437% 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 2016.

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 2017 are apportioned as follows:

	<u>2017</u>	<u>2016</u>		<u>2017</u>	<u>2016</u>
East Orange	4.1028%	4.1893%	Roselle Park	2.8781%	2.9116%
Hillside	7.6325%	7.4300%	South Orange	4.9497%	4.8611%
Irvington	21.1240%	20.3062%	Summit	8.7126%	8.6004%
Maplewood	5.7810%	5.8685%	Union	16.9245%	17.3153%
Millburn	5.8639%	5.9691%	West Orange	11.9249%	12.2552%
Newark	10.1060%	10.2933%	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
2017 Budget**

	Treatment Plant	Dewatering Facility	Drying Facility	Sewer	Total
Electric Service	\$ 1,030,974	\$ 120,365	\$ 8,781	\$ -	\$ 1,160,120
Gas Service	406,200	90,000	-	-	496,200
Fuel, Oil & Kerosene	188,500	38,000	-	-	226,500
Water Service	95,000	40,000	3,500	-	138,500
Chemicals	2,070,363	593,900	6,800	2,200	2,673,263
Sludge Disposal	-	3,402,000	-	-	3,402,000
Insurance	626,530	125,306	58,476	25,061	835,373
Administration	2,227,699	1,261,320	10,000	244,844	3,743,863
Labor	5,483,630	1,083,676	136,943	16,538	6,720,787
Benefits	5,087,022	783,221	96,153	62,073	6,028,469
Equipment	335,000	380,500	-	-	715,500
Printing & Stationery	21,000	2,000	-	1,000	24,000
Maintenance, Supplies & Spare Parts	1,817,333	760,417	5,000	573,250	3,156,000
Screening Disposal	160,000	-	-	-	160,000
Reserve Contingency	180,000	-	-	-	180,000
Miscellaneous Expenses	375,727	87,500	-	120,000	583,227
Technical & Professional Services	878,300	50,000	-	25,000	953,300
Replacement Fund	1,250,000	-	-	-	1,250,000
NJPDES & Miscellaneous Permit Fee	547,000	12,000	-	9,700	568,700
	\$ 22,780,278	\$ 8,830,205	\$ 325,653	\$ 1,079,666	\$ 33,015,802
	69.00%	26.75%	0.99%	3.26%	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)**

	<u>Estimated Total Cost</u>	<u>Percent Flow</u>	<u>Cost Flow</u>	<u>Percent SS</u>	<u>Cost SS</u>	<u>Percent BOD</u>	<u>Cost BOD</u>
General Expenditures 1	\$ 4,126,370	80%	\$ 3,301,096	10%	\$ 412,637	10%	\$ 412,637
Power	1,030,974	40%	\$ 412,390	5%	\$ 51,549	55%	\$ 567,035
Chlorine	850,000	40%	\$ 340,000			60%	\$ 510,000
Maintenance, Equipment, Supplies, Spare Parts, & Replacement Fund	3,582,333	28%	\$ 1,003,053	27%	\$ 967,230	45%	\$ 1,612,050
Fuel, Oil & Kerosene	188,500	40%	\$ 75,400	30%	\$ 56,550	30%	\$ 56,550
Administration, Labor & Benefits (Payroll Retirement)	12,798,351	40%	5,119,340	10%	\$ 1,279,835	50%	\$ 6,399,176
Sludge Processing 2	203,750			50%	\$ 101,875	50%	\$ 101,875
Total	\$22,780,278	100%	\$ 10,251,279		\$ 2,869,676		\$ 9,659,323
			45.0006756%		12.5971948%		42.4021296%

(1) General Expenditures
(From the Approved Budget)

(2) Sludge Processing

Insurance	\$ 626,530	Polymer	\$ 170,000
Technical & Professional Services	878,300	K2MnO4	33,750
Stationery & Printing	21,000		
Gas	406,200		
Water	95,000		
Miscellaneous	375,727		
Service Contracts	160,000		
Permit Fees	547,000		
Sodium Bisulfite & Misc. Chemicals	1,016,613		
	<u>\$4,126,370</u>		<u>\$ 203,750</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	\$ 22,780,278	\$ 10,251,279	\$ 2,869,676	\$ 9,659,323
Dewatering Facility	8,830,205		4,415,103	4,415,103
Drying Facility	325,653		162,827	162,827
	<u>\$ 31,936,136</u>	<u>\$ 10,251,279</u>	<u>\$ 7,447,605</u>	<u>\$ 14,237,252</u>
Subtotal	100.00%	32.0993091%	23.3203071%	44.5803838%
Sewers 1	\$ 1,079,666			
Total	<u>\$ 33,015,802</u>			

(1) Joint Meeting Members Only

JOINT MEETING OF ESSEX & UNION COUNTIES

**INDUSTRIAL USER CHARGE - 2017
SUMMARY**

MUNICIPALITY	FLOW (MG)	LOADINGS	
		BOD (tons)	TSS (tons)
HILLSIDE	84.273	581.88319278	107.59086639
IRVINGTON	86.177	1162.98451473	46.22043429
MAPLEWOOD	10.910	10.49280420	6.37450386
MURRAY HILL	17.330	0.38857728	1.64421849
ROSELLE PARK	0.722	0.17462292	0.21978402
SUMMIT	40.936	22.77332493	51.21558972
UNION	117.986	293.62466196	157.79328789
<i>MEMBERS TOTAL</i>	358.334	2072.32169880	371.05868466
<i>ELIZABETH</i>	169.578	1514.37772542	208.15804749
GRAND TOTAL	527.912	3586.69942422	579.21673215

MUNICIPALITY	FLOW	COSTS		
		BOD	TSS	TOTAL
HILLSIDE	\$54,848.71	\$502,564.36	\$57,856.46	\$615,269.53
IRVINGTON	\$56,087.92	\$1,004,453.42	\$24,854.81	\$1,085,396.16
MAPLEWOOD	\$7,100.73	\$9,062.49	\$3,427.86	\$19,591.07
MURRAY HILL	\$11,279.15	\$335.61	\$884.17	\$12,498.93
ROSELLE PARK	\$469.91	\$150.82	\$118.19	\$738.92
SUMMIT	\$26,643.02	\$19,669.00	\$27,540.93	\$73,852.95
UNION	\$76,790.67	\$253,599.51	\$84,852.57	\$415,242.74
<i>MEMBERS TOTAL</i>	\$233,220.11	\$1,789,835.21	\$199,534.99	\$2,222,590.31
<i>ELIZABETH</i>	\$96,026.70	\$1,307,946.82	\$111,935.97	\$1,515,909.49
GRAND TOTAL	\$329,246.81	\$3,097,782.02	\$311,470.96	\$3,738,499.80

JOINT MEETING OF ESSEX & UNION COUNTIES

**INDUSTRIAL USER CHARGE - 2016
COST FACTORS**

	FLOW	BOD	TSS
MEMBER MUNICIPALITIES	\$650.8456205	\$863.6859838	\$537.7451068
ELIZABETH	\$566.2686205	\$863.6859838	\$537.7451068

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2017

Municipality: HILLSIDE

IU #	INDUSTRY	SITE	Concentration		Cost Factors			ANNUAL PAYMENT
			BOD (mg/l)	TSS (mg/l)	Flow per MG \$850.8456205	BOD per Ton \$863.6859838	TSS per Ton \$537.7451068	
1042	GEC Marconi / BAE	1	2	1	6.325	0.0528	0.0264	
	Totals:				6.325	0.0528	0.0264	
	Cost Analysis:				\$4,116.60	\$45.56	\$14.18	\$4,176.34
1050	Manhattan Drug Co.	4	500	324	0.609	1.2698	0.8228	
	Totals:				0.609	1.2698	0.8228	
	Cost Analysis:				\$396.36	\$1,096.68	\$442.46	\$1,935.50
1094	Oasis Foods (AAK Inc.)	3 99	2432 224	986 186	9.144 0.616 9.760	92.7333 0.5754 93.3087	37.5967 0.4778 38.0744	
	Totals:				\$6,352.25	\$80,589.43	\$20,474.34	\$107,416.03
	Cost Analysis:							
1090	Union Beverages	1 2	1878 261	256 263	57.72 0.804 58.524	452.0203 0.8750 452.8954	61.6173 0.8818 62.4990	
	Totals:				\$38,090.09	\$391,159.39	\$33,608.54	\$462,858.01
	Cost Analysis:							
1091	Hillside Beverage	2 99	1211 224	35 186	4.405 0.137 4.542	22.2447 0.1280 22.3726	0.6429 0.1063 0.7492	
	Totals:				\$2,956.14	\$19,322.94	\$402.86	\$22,681.94
	Cost Analysis:							
1092	A&H Products	1 99	608 224	196 186	3.277 0.156 3.433	8.3084 0.1457 8.4541	2.6784 0.1210 2.7994	
	Totals:				\$2,234.35	\$7,301.68	\$1,505.34	\$11,041.37
	Cost Analysis:							
1093	Sam Hak Foods	1 99	879 224	649 186	0.923 0.157 1.080	3.3832 0.1467 3.5298	2.4979 0.1218 2.6197	
	Totals:				\$702.91	\$3,048.68	\$1,408.74	\$5,160.33
	Cost Analysis:							
HILLSIDE TOTALS					84.2730 \$54,848.71	581.8832 \$502,564.36	107.5909 \$57,856.46	\$615,269.53

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2017

Municipality: IRVINGTON

IU #	Cost Factors	SITE	Concentration		Cost Factors			ANNUAL PAYMENT
			BOD (mg/l)	TSS (mg/l)	Flow per MG \$650.8456205	BOD per Ton \$863.6859838	TSS per Ton \$537.7451068	
2066	Wayne County Foods	1	3249	122	0.174	2.3574	0.0885	
		99	224	186	0.132	0.1233	0.1024	
		Totals:			0.306	2.4807	0.1909	
		Cost Analysis:			\$199.16	\$2,142.55	\$102.66	
2072	Clean-Tex Services	1	191	103	48.538	36.6591	20.8476	
		99	224	186	0.162	0.1513	0.1257	
		Totals:			48.700	38.8104	20.9732	
		Cost Analysis:			\$31,696.18	\$33,519.98	\$11,278.24	
2076	International Vitamin	1	993	67	2.647	10.9607	0.7395	
		Totals:			2.647	10.9607	0.7395	
		Cost Analysis:			\$1,722.79	\$9,466.62	\$397.69	
2078	City Barrel	1	182	8	0.299	0.2269	0.0100	
		99	224	186	0.092	0.0859	0.0714	
		Totals:			0.391	0.3129	0.0813	
		Cost Analysis:			\$254.48	\$270.21	\$43.74	
3055	Maplewood Beverage	2	7932	170	33.555	1,109.880	23.7871	
		99	224	186	0.578	0.5399	0.4483	
		Totals:			34.133	1,110.420	24.2354	
		Cost Analysis:			\$22,215.31	\$959,054.05	\$13,032.49	
IRVINGTON TOTALS					86.1770	1,162.9845	46.2204	
					\$56,087.92	\$1,004,453.42	\$24,854.81	\$1,085,396.16

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2017

Municipality: MAPLEWOOD

IU #	INDUSTRY	SITE	Concentration		Cost Factors			ANNUAL PAYMENT
			BOD (mg/l)	TSS (mg/l)	Flow per MG	BOD per Ton	TSS per Ton	
					\$650.8456205	\$863.6859838	\$537.7451068	
			BOD (mg/l)	TSS (mg/l)	FLOW (MG)	BOD (Tons)	TSS (Tons)	
3020	Gleason Cleaners	1	135	40	0.540	0.3040	0.0901	
		99	224	186	0.114	0.1065	0.0884	
		Totals:			0.654	0.4105	0.1785	
	Cost Analysis:				\$425.65	\$354.52	\$95.98	\$876.16
3033	NJ Transit - Hilton Gar.	3a	352	495	2.544	3.7342	5.2512	
		4	283	34	4.854	5.7283	0.6882	
		Totals:			7.398	9.4624	5.9394	
	Cost Analysis:				\$4,814.96	\$8,172.58	\$3,193.88	\$16,181.41
3046	UniClean	1	41	11	2.686	0.4592	0.1232	
		99	224	186	0.172	0.1607	0.1334	
		Totals:			2.858	0.6199	0.2566	
	Cost Analysis:				\$1,860.12	\$535.39	\$137.99	\$2,533.50
MAPLEWOOD TOTALS					10.9100	10.4928	6.3745	
					\$7,100.73	\$9,062.49	\$3,427.86	\$19,591.07

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2017

Municipality: **MURRAY HILL**

IU #	INDUSTRY	SITE	Concentration		Cost Factors			ANNUAL PAYMENT
			BOD (mg/l)	TSS (mg/l)	Flow per MG \$650.8456205	BOD per Ton \$863.6859838	TSS per Ton \$537.7451068	
5010	Alcatel-Lucent USA	1	5	23	16.682	0.3478	1.6000	
	Totals:				16.682	0.3478	1.6000	
	Cost Analysis:				\$10,857.41	\$300.41	\$860.38	\$12,018.19
5021	FRC-Electrical Ind	3	6	9	0.621	0.0155	0.0233	
		4(99)	224	186	0.027	0.0252	0.0209	
	Totals:				0.648	0.0408	0.0442	
	Cost Analysis:				\$421.75	\$35.20	\$23.79	\$480.74
MURRAY HILL TOTALS					17.3300	0.3886	1.6442	
					\$11,279.15	\$335.61	\$884.17	\$12,498.93

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2017

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	
					\$650.8456205	\$863.6859838	\$537.7451068	
6005	Hexacon Electric	2	58	73	0.722	0.1746	0.2198	
	Totals:				0.722	0.1746	0.2198	
	Cost Analysis:				\$469.91	\$150.82	\$118.19	\$738.92
ROSELLE PARK TOTALS					0.7220	0.1746	0.2198	
					\$469.91	\$150.82	\$118.19	\$738.92

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2017

Municipality: SUMMIT

IU #	INDUSTRY	SITE	Concentration		Cost Factors			ANNUAL PAYMENT
			BOD (mg/l)	TSS (mg/l)	Flow per MG (\$650,8456205)	BOD per Ton (\$863.6859838)	TSS per Ton (\$537.7451068)	
5511	Novartis Groundwater	4	1	1	0.779	0.0032	0.0032	
	Totals:				0.779	0.0032	0.0032	
	Cost Analysis:				\$507.01	\$2.81	\$1.75	\$511.56
5513	Celgene Corporation	1	300	731	14.327	17.9231	43.6726	
	Totals:				14.327	17.9231	43.6726	
	Cost Analysis:				\$9,324.67	\$15,479.91	\$23,484.71	\$48,289.28
5513	Celgene West 556	03A	45	70	25.830	4.8470	7.5398	
	Totals:				25.830	4.8470	7.5398	
	Cost Analysis:				\$16,811.34	\$4,186.29	\$4,054.48	\$25,052.11
SUMMIT TOTALS					40.9360	22.7733	51.2156	
					\$26,643.02	\$19,669.00	\$27,540.93	\$73,852.95

*Celgene West 556 - New industrial User (Former Summit Property Co.)

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2017

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	
					\$650.8456205	\$863.6859838	\$537.7451068	
7015	ACuPowder	3 (99) 4	224 222	186 320	0.016 1.487 1.503	0.0149 1.3766 1.3915	0.0124 1.9843 1.9967	\$3,253.75
	Totals:				\$978.22	\$1,201.84	\$1,073.70	
	Cost Analysis:							
7035	American Products	1	263	201	0.765 0.765	0.8390 0.8390	0.6412 0.6412	\$1,567.32
	Totals:				\$497.90	\$724.62	\$344.80	
	Cost Analysis:							
7070	Durex	1	127	176	2.051 2.051	1.0862 1.0862	1.5053 1.5053	\$3,082.46
	Totals:				\$1,334.88	\$938.13	\$809.45	
	Cost Analysis:							
7077	Evoqua Water Tech	4	50	74	2.076 2.076	0.4328 0.4328	0.6406 0.6406	\$2,069.48
	Totals:				\$1,351.16	\$373.84	\$344.49	
	Cost Analysis:							
7080	Foremost Mfg	2	16	244	15.731 15.731	1.0496 1.0496	16.0060 16.0060	\$19,752.09
	Totals:				\$10,238.45	\$906.50	\$8,607.14	
	Cost Analysis:							
7092	International Paint	01A 99	5 224	5 186	8.416 0.021 8.437	0.1755 0.0196 0.1951	0.1755 0.0163 0.1918	\$5,762.80
	Totals:				\$5,491.18	\$168.50	\$103.12	
	Cost Analysis:							
7145	Merck Sharp & Dohme Corp. (Schering)	5	7	8	20.586 20.586	0.6009 0.6009	0.6867 0.6867	\$14,286.60
	Totals:				\$13,398.31	\$518.99	\$369.30	
	Cost Analysis:							
7155	Tessler & Weiss	22	86	185	1.213 1.213	0.4350 0.4350	0.9358 0.9358	\$1,668.39
	Totals:				\$789.48	\$375.71	\$503.21	
	Cost Analysis:							
7191	Cintas (Location 111)	1	315	249	27.924 27.924	36.6796 36.6796	28.9943 28.9943	\$65,445.40
	Totals:				\$18,174.21	\$31,679.63	\$15,591.56	
	Cost Analysis:							
7192	Merril Corporation	1	390	472	1.095 1.095	1.7808 1.7808	2.1552 2.1552	\$3,409.69
	Totals:				\$712.68	\$1,538.05	\$1,158.96	
	Cost Analysis:							
7193	Lioni Latticini	1 99	2507 224	465 186	8.61 0.302 8.912	90.0106 0.2821 90.2927	16.6952 0.2342 16.9295	\$92,888.58
	Totals:				\$5,800.34	\$77,984.51	\$9,103.73	
	Cost Analysis:							

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2017

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		
					\$650.8456205	\$863.6859838	\$537.7451068		
7194	BASF Catalysts	1	15	343	0.094	0.0059	0.1344		
		99	224	186	1.245	1.1629	0.9656		
		Totals:			1.339	1.1688	1.1001		
		Cost Analysis:			\$871.48	\$1,009.48	\$591.57		\$2,472.54
7195	Deep Foods	1	1978	1060	16.684	137.6140	73.7466		
		3	577	139	2.963	7.1292	1.7174		
		4	1532	773	0.988	6.3118	3.1847		
		5(99)	224	186	0.679	0.6342	0.5266		
		6(99)	224	186	0.21	0.1962	0.1629		
		2(99)	224	186	0.596	0.5567	0.4623		
		Totals:			22.120	152.4421	79.8006		
Cost Analysis:			\$14,396.71	\$131,662.11	\$42,912.37	\$188,971.19			
7916	Cintas Corporation	1	299	358	4.079	5.0858	6.0894		
		99	224	186	0.155	0.1448	0.1202		
		Totals:			4.234	5.2306	6.2096		
		Cost Analysis:			\$2,755.68	\$4,517.60	\$3,339.18		\$10,612.46
UNION TOTALS					117.9860	293.6247	157.7933		
					\$76,790.67	\$253,599.51	\$84,852.57	\$415,242.74	

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2017

Municipality: ELIZABETH

IU #	INDUSTRY	SITE	Concentration		Cost Factors			ANNUAL PAYMENT
			BOD (mg/l)	TSS (mg/l)	Flow per MG \$566,2686205	BOD per Ton \$863,6859838	TSS per Ton \$537,7451068	
0192	Wild Flavors Inc.	1	942	252	0.093	0.3653	0.0977	
	Totals:				0.093	0.3653	0.0977	
	Cost Analysis:				\$52.66	\$315.52	\$52.55	\$420.73
0037	Deb-EI Foods	1	3246	658	9.821	132.9353	26.9474	
	Totals:				9.821	132.9353	26.9474	
	Cost Analysis:				\$5,561.32	\$114,814.35	\$14,490.86	\$134,866.53
0062	Garcia Laundry	2	890	225	2.771	10.2840	2.5999	
		99	224	186	0.110	0.1027	0.0853	
	Totals:				2.881	10.3868	2.6852	
	Cost Analysis:				\$1,631.42	\$8,970.90	\$1,443.96	\$12,046.28
0067	Actavis (formerly Purepac)	3	592	158	18.698	46.1586	12.3194	
	Totals:				18.698	46.1586	12.3194	
	Cost Analysis:				\$10,588.09	\$39,866.56	\$6,624.68	\$57,079.33
0070	LORCO	2	6700	74	17.264	482.3389	5.3273	
	Totals:				17.264	482.3389	5.3273	
	Cost Analysis:				\$9,776.06	\$416,589.34	\$2,864.74	\$429,230.15
0075	Mastercraft Electroplating	99	224	186	0.026	0.0243	0.0202	
	Totals:				0.026	0.0243	0.0202	
	Cost Analysis:				\$14.72	\$20.98	\$10.84	\$46.54
0078	Magnolia Beef	1	403	267	0.104	0.1748	0.1158	
		99	224	186	0.732	0.6837	0.5678	
	Totals:				0.836	0.8585	0.6835	
	Cost Analysis:				\$473.40	\$741.49	\$367.57	\$1,582.47
0093	OENJ	4	7	23	9.455	0.2760	0.9068	
	Totals:				9.455	0.2760	0.9068	
	Cost Analysis:				\$5,354.07	\$238.37	\$487.64	\$6,080.08
0098	Olympia Trails	1	639	168	1.903	5.0708	1.3332	
		99	224	186	0.534	0.4988	0.4142	
	Totals:				2.437	5.5696	1.7473	
	Cost Analysis:				\$1,380.00	\$4,810.38	\$939.63	\$7,130.00
0100	Michaels Foods - North Avenue Facility	4	2970	291	35.190	435.8246	42.7020	
		4a	3062	352	4.843	61.8380	7.1087	
		4b	2564	235	3.248	34.7272	3.1829	
		99	224	186	1.193	1.1144	0.9253	
	Totals:				44.474	533.5043	53.9190	
	Cost Analysis:				\$25,184.23	\$460,780.15	\$28,994.65	\$514,959.03

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2017

Municipality: ELIZABETH

IU #	INDUSTRY	SITE	Concentration		Cost Factors			ANNUAL PAYMENT	
			BOD (mg/l)	TSS (mg/l)	Flow per MG \$566.2686205	BOD per Ton \$863.6859838	TSS per Ton \$537.7451068		
0105	Michaels Foods - Papetti Plaza Facility	2	1534	439	33.756	215.9297	61.7947		
		2a	1758	288	3.360	24.6317	4.0352		
		2b	538	116	2.883	6.4679	1.3946		
		3	369	468	0.535	0.8232	1.0441		
		Totals:				40.5340	247.8525		68.2686
	Cost Analysis:			\$22,953.13	\$214,066.74	\$36,711.12	\$273,730.99		
0148	Superior Powder Coating	1	126	64	2.877	1.5116	0.7678		
		99	224	186	0.524	0.4895	0.4064		
		Totals:			3.401	2.0011	1.1742		
		Cost Analysis:			\$1,925.88	\$1,728.31	\$631.44		\$4,285.64
0195	Duro Hillex Poly LLC (Formerly Duro-Bag)	1	857	494	7.481	26.7348	15.4107		
		2	136	172	2.448	1.3883	1.7558		
		3	358	554	1.218	1.8183	2.8138		
		Totals:			11.147	29.9414	19.9803		
		Cost Analysis:			\$6,312.20	\$25,859.96	\$10,744.32		\$42,916.47
0165	Wakefern Food Corp.	2	136	111	1.015	0.5756	0.4698		
		3a	152	296	4.453	2.8225	5.4964		
		4	412	397	0.825	1.4174	1.3658		
		99 (7)	224	186	0.032	0.0299	0.0248		
		Totals:			6.325	4.8454	7.3568		
	Cost Analysis:			\$3,581.65	\$4,184.90	\$3,956.10	\$11,722.65		
0178	814 Americas	3	722	489	1.161	3.4955	2.3674		
		99	224	186	0.028	0.0262	0.0217		
		Totals:			1.189	3.5216	2.3891		
		Cost Analysis:			\$673.29	\$3,041.58	\$1,284.75		\$4,999.62
0189	Prince Donut Co.	3	4010	1234	0.815	13.6282	4.1938		
		99	224	186	0.182	0.1700	0.1412		
		Totals:			0.997	13.7982	4.3350		
		Cost Analysis:			\$564.57	\$11,917.30	\$2,331.11		\$14,812.98
0194	Erie Street Former (Former MGP Site)	1							
	Totals:								
	Cost Analysis:								
ELIZABETH TOTALS					169.5780	1,514.3777	208.1580		
					\$96,026.70	\$1,307,946.82	\$111,935.97	\$1,515,909.49	

Erie Street Former (Former MGP Site) - Phase 1 of this Project ended in June 2015, Phase 2 is scheduled to begin in late 2016. There was ZERO Discharge during this Assessment Period.