

December 18, 2015

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 2016)

I present herewith the 81st 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, 2014 through October 31, 2015. 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 2016. 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 2015, 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 19, 2014.

During 2015, 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 (2016) dwelling unit figures formulated by each municipality in 2015.

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, 2014, through October 31, 2015 and projected for a twelve (12) month period in 2016. 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 2016, 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, 2014, through October 31, 2015, and projected for 2016 and are based upon actual 2014-2015 operating statistics as well as a recent upgraded 2015 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	19,448.7790 MG/Year	53.2843 MGD
2.	BOD	16,472.1582 Tons/Year	90,258.4011 Lbs/Day
	TSS	14,278.8071 Tons/Year	78,240.0389 Lbs/Day
3.	Estimated Industrial Flow	511.2500 MG/Year	1.4007 MGD
4.	Estimated Industrial BOD	3,551.7382 Tons/Year	19,461.5792 Lbs/Day
5.	Estimated Industrial TSS	585.5549 Tons/Year	3,208.5200 Lbs/Day
6.	Estimated Total Operating Expenses in 2016		
			\$21,990,707 STP
			8,083,250 SDWF
			317,064 SDF
			1,060,969 Sewers
			<hr/> \$31,451,990 Total
7.	Estimated Total Dwelling Units in System		
			151,829 JM Members
			47,181 Elizabeth
			<hr/> 199,010 Total

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

Flow	32.5719725%
BOD	44.5756429%
Suspended Solids	22.8523846%

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 2016 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 2016**

**Treatment Plant**

	<b><u>Total for 2016</u></b>	<b><u>Domestic &amp; Commercial</u></b>	<b><u>Industrial</u></b>
Flow	19,448.7790 MG/Yr. <sup>1</sup>	18,937.5290 MG/Yr.	511.2500 MG/Yr.
BOD	16,472.1582 Tons/Yr. <sup>1</sup>	12,920.4200 Tons/Yr.	3,551.7382 Tons/Yr.
Suspended Solids	14,278.8071 Tons/Yr. <sup>1</sup>	13,693.2522 Tons/Yr.	585.5549 Tons/Yr.

(1) Based upon data from November 1, 2014 thru October 31, 2015 (365 days)

**Cost Allocation**

	<b><u>Total for 2016</u></b>	<b><u>Domestic &amp; Commercial</u></b>	<b><u>Industrial</u></b>
Flow	\$9,898,955.00	\$9,638,741.00	\$260,214.00
BOD	13,546,993.00	10,625,981.00	2,921,012.00
Suspended Solids	6,945,073.00	6,660,265.00	284,808.00
	<u>\$30,391,021.00</u>	<u>\$26,924,987.00</u>	<u>\$3,466,034.00</u>
	100.000000%	88.59520380%	11.40479620%

**Elizabeth Contribution**

Flow	-	5,344.9230 MG/Yr.
BOD	-	4,858.5615 Tons/Yr.
TSS	-	2,907.0950 Tons/Yr.

**Trunk Sewer Flow**<sup>1</sup>

<b><u>Total for 2016</u></b>	<b><u>Domestic &amp; Commercial</u></b>	<b><u>Industrial</u></b>
14,103.8560 MG/Yr. <sup>2</sup>	13,779.2680 MG/Yr.	324.588 MG/Yr.

(1) Based upon data from November 1, 2014 thru October 31, 2015 (365 days)

(2) (19,448.779 - 5,344.9230)

**COST ALLOCATION**

\$1,060,969.00	\$1,036,551.72	\$24,417.28
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Member municipalities will be assessed \$6.83 (\$1,036,551.72/151,829) for trunk sewer O&M per equivalent dwelling unit.

The estimated cost for treating industrial wastes has been determined to be \$508.98 per MG for flow, \$822.42 per ton of BOD, and \$486.39 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	\$260,214.00	/	511.2500	=	\$508.9760391	/MG
BOD	\$2,921,012.00	/	3,551.7382	=	\$822.4175982	/Ton
Suspended Solids	\$284,808.00	/	585.5549	=	\$486.3899183	/Ton

All industries within the member municipalities (excluding Elizabeth) will be required to pay an additional \$75.23/MG of flow for trunk sewer use ( $\$24,417.28/324.588 = \$75.225/\text{MG}$ ). This brings the total flow cost to \$584.20/MG (\$508.976 + \$75.225) for the indicated industries of member municipalities.

Based upon the user charges for 2016, 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 2015 industrial waste survey of the service area. These are estimates for 2016 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 \$31,451,990.00 for 2016. 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 28.6435967% 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**  
**2016**

<u>Municipality</u>	<u>Dwelling Units <sup>1</sup></u>	<u>User Charges Industrial</u>
East Orange	7,215	\$ -
Hillside	8,555	544,286
Irvington	26,912	838,244
Maplewood	9,574	15,756
Millburn	9,864 <sup>4</sup>	-
Newark	17,427	-
Roselle Park	4,752	717
South Orange	8,084	-
Summit	14,261 <sup>2</sup>	52,252 <sup>3</sup>
Union	25,047	357,398
West Orange	20,138	-
Elizabeth	47,181	1,681,797
	<u>199,010</u>	<u>\$ 3,490,450</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 (3682)

(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 11/1/2014-10/31/2015 and Projected Contribution for 2016

Flow:	Treatment Plant	Elizabeth Pumping Station		Joint Meeting	
	19,448.779 MG	5,344.923 MG		14,103.856 MG	
		Industrial	D&C	Industrial	D&C
		167.191	5,177.732	324.588	13,779.268
		\$ 85,096.21	\$ 2,635,341.52	\$ 189,624.79	\$ 8,049,868.95
Unit Charge \$ 508.9760391 Per MG for Elizabeth					
Unit Charge \$ 584.2014941 Per MG for Joint Meeting					
<b>BOD:</b>	16,472.1582 Tons	4,858.5615 Tons		11,613.5967 Tons	
		Industrial	D&C	Industrial	D&C
		1,699.1159	3,159.4456	1,799.8462	9,813.7505
Unit Charge	\$822.4175982 Per Ton	\$ 1,397,382.82	\$ 2,598,383.66	\$ 1,480,225.19	
<b>TSS:</b>	14,278.8071 Tons	2,907.0950 Tons		11,371.7121 Tons	
		Industrial	D&C	Industrial	D&C
		280.2049	2,626.8901	285.3763	11,086.3358
Unit Charge	\$486.3899183 Per Ton	\$ 136,288.84	\$ 1,277,692.86	\$ 138,804.16	
		\$ 8,130,185.91		\$ 1,808,654.14	

City of Elizabeth (Contribution from Pumping Station) \$ 8,130,185.91

City of Elizabeth (Industry Tributary to Joint Meeting Trunk)

<b>Flow:</b>	19.4710 MG/Year at	\$ 508.9760391	9,910.27
<b>BOD:</b>	52.7761 Tons/Year at	822.4175982	43,403.99
<b>TSS:</b>	19.9737 Tons/Year at	486.3899183	9,715.01

Joint Meeting Industrial	1,808,654.14
Subtotal	\$ 10,001,869.32

Total 2016 Budget	\$ 31,451,990.00
Subtotal (above)	(10,001,869.32)
Subtotal (EDU's)	\$ 21,450,120.68

Joint Meeting EDU's (X + Y) + Elmora EDU's (X) = \$ 21,450,121  
 (Y = Additional Assessment to Member Municipalities for Trunk Sewer O&M)  
 151,829 (X + \$6.827099698) + 3905 (X) = \$ 21,450,121

Equivalent Units-Member Municipalities 151,829

Elmora EDU's =	3,905	\$ 131.0797190080	Per Unit = X
		\$ 137.9068187060	Per Unit = X+Y

Joint Meeting EDU Assessment	\$ 20,938,254.38
Elmora Area Assessment	\$ 511,866.30

Total Anticipated Payment from the City of Elizabeth

Pumping Station	\$ 8,130,185.91
Elmora EDU's	511,866.30
Elmora Industrial	63,029.27
	<hr/>
	\$ 8,705,081.48

Total Anticipated Payment from Member Municipalities

EDU's	20,938,254.38
Industrial	1,808,654.14
	<hr/>
	\$ 22,746,908.52

Estimated Percent Contribution of Treatment Plant, Sludge Dewatering and Sludge Drying Facility Budgets by  
 City of Elizabeth  
 \$ 8,705,081.48 / \$ 30,391,021.00 = 28.6435967%



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

Municipality	Capacity By Contract		Base Year - 1982		Base Year - 1982		Base Year - 1982		Base Year - 1982		Base Year - 1982	
	Contract (MGD)	Contract (Percent)	Phase IIB - SSES <sup>1</sup> (GPD) <sup>3</sup>	Infiltration (Percent)	SSES - November 2015 (GPD) <sup>4</sup>	(Percent)	Inflow (GPD)	(Percent)	SSES - November 2015 (GPD) <sup>5</sup>	(Percent)	SSES - November 2015 (GPD) <sup>5</sup>	(Percent)
East Orange	5.50	4.88%	70,747	2.11%	32,237	2.19%	3,007,440	5.79%	246,222	0.53%	218,160	0.53%
Hillside	12.20	10.83%	79,012	2.36%	24,141	1.64%	1,185,120	2.28%	1,342,608	2.89%	1,185,120	2.89%
Irvington	18.61	16.52%	1,115,672	33.31%	583,501	39.64%	8,612,640	16.57%	8,631,715	18.58%	7,610,400	18.58%
Maplewood	7.08	6.29%	389,078	11.62%	141,459	9.61%	5,449,680	10.48%	2,332,142	5.02%	2,056,320	5.02%
Millburn	6.00	5.33%	191,609	5.72%	111,430	7.57%	2,729,520	5.25%	2,703,799	5.82%	2,384,640	5.82%
Newark	15.50	13.76%	234,484	7.00%	134,982	9.17%	1,959,540	3.77%	2,211,354	4.76%	1,951,200	4.76%
Roselle Park	9.44	8.38%	106,187	3.17%	47,693	3.24%	1,576,080	3.03%	1,788,595	3.85%	1,576,080	3.85%
South Orange	7.00	6.22%	410,876	12.27%	61,382	4.17%	2,183,760	4.20%	2,146,314	4.62%	1,890,720	4.62%
Summit	7.50	6.66%	171,657	5.13%	47,546	3.23%	3,651,120	7.02%	1,821,115	3.92%	1,604,880	3.92%
Union	10.30	9.14%	329,127	9.83%	174,285	11.84%	14,534,640	27.96%	15,586,331	33.55%	13,746,880	33.55%
West Orange	13.50	11.99%	250,811	7.48%	113,344	7.70%	7,097,040	13.65%	7,646,827	16.46%	6,744,600	16.46%
	112.63	100.00%	3,349,260	100.00%	1,472,000	100.00%	51,986,580	100.00%	46,457,022	100.00%	40,969,000	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) 2015 - Infiltration related to base year total = 2.011 MGD / 52.79 MGD = 3.80943360%

- Adjusted for period 11/1/2014 - 10/31/2015; (3.80943360% x 14,103.8560 = 537.27 MG / Year / 365 = 1,472,000 GPD)

(5) 2015 inflow adjusted for period 11/1/2014 - 10/31/2015 - (37.67" / 33.22") x (40,969,000) = 46,457,022 GPD

Table IV - A  
Joint Meeting of Essex and Union Counties  
Adjusted 2015 - Summary of Infiltration and Inflow

Municipality	Phase IIB		2015		Phase IIB		2015	
	SSES Infiltration (GPD)	2014 Infiltration (GPD)	Infiltration Removed (GPD)	2015 Infiltration (GPD)	SSES Inflow (GPD)	2014 Inflow (GPD)	Inflow Removed (GPD)	2015 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	797,026	-	797,026	8,612,640	7,610,400	-	7,610,400
Maplewood	389,078	193,273	-	193,273	5,449,680	2,062,080	5,760	2,056,320
Millburn	191,609	152,240	-	152,240	2,729,520	2,384,640	-	2,384,640
Newark	234,484	184,463	-	184,463	1,959,540	1,951,200	-	1,951,200
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	1,916,640	25,920	1,890,720
Summit	171,657	64,916	-	64,916	3,651,120	1,764,720	159,840	1,604,880
Union	329,127	238,013	-	238,013	14,534,640	13,935,520	188,640	13,746,880
West Orange	250,811	154,847	-	154,847	7,097,040	6,744,600	-	6,744,600
Total	3,349,260	2,010,833	-	2,010,833	51,986,580	41,349,160	380,160	40,969,000

## Joint Meeting of Essex and Union Counties

Total D&C	\$20,938,254.38
Less: Infiltration	(284,752.95)
Less: Inflow	(823,370.06)
<b>Net after infiltration and inflow</b>	<b>\$19,830,131.37</b>
Equivalent Dwelling Units	151,829
User Charge Per Unit	\$130.60832495768

Table VI  
Joint Meeting of Essex and Union Counties  
Estimated Annual Operation Expenses To Member Municipalities  
2016

Domestic & Commercial									
Municipality	Dwelling Units	User Charge		Infiltration		Inflow		Total Cost	Unit Cost
		\$ 130.60832496 Per Unit	Percent <sup>1</sup>	Amount	Percent <sup>2</sup>	Amount			
East Orange	7,215	\$942,339.06	2.19%	\$6,236.09	0.53%	\$4,363.86	\$952,939.01	\$132.0775	
Hillside	8,555	1,117,354.22	1.64%	4,669.95	2.89%	23,795.39	1,145,819.56	133.9357	
Irvington	26,912	3,514,931.24	39.64%	112,876.07	18.58%	152,982.16	3,780,789.47	140.4871	
Maplewood	9,574	1,250,444.10	9.61%	27,364.76	5.02%	41,333.18	1,319,142.04	137.7838	
Millburn	9,864 <sup>3</sup>	1,288,320.52	7.57%	21,555.80	5.82%	47,920.14	1,357,796.46	137.6517	
Newark	17,427	2,276,111.28	9.17%	26,111.85	4.76%	39,192.41	2,341,415.54	134.3556	
Roselle Park	4,752	620,650.76	3.24%	9,226.00	3.85%	31,699.75	661,576.51	139.2206	
South Orange	8,084	1,055,837.70	4.17%	11,874.20	4.62%	38,039.70	1,105,751.60	136.7827	
Summit	14,261 <sup>4</sup>	1,862,605.32	3.23%	9,197.52	3.92%	32,276.11	1,904,078.95	133.5165	
Union	25,047	3,271,346.72	11.84%	33,714.75	33.55%	276,240.66	3,581,302.13	142.9833	
West Orange	20,138	2,630,190.45	7.70%	21,925.98	16.46%	135,526.71	2,787,643.14	138.4270	
	151,829	\$19,830,131.37	100.00%	\$284,752.97	100.00%	\$823,370.07	\$20,938,254.41	\$137.9068	
								\$130.4775 2015	
								\$122.1410 2014	
								\$125.0975 2013	
								\$103.1856 2012	

(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 (3682)

(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 (3682)

Table VI (Continued)  
Joint Meeting of Essex and Union Counties  
Estimated Annual Operation Expenses To Member Municipalities  
2015

Industrial										
Municipality	BOD (Tons / Year)	BOD <sup>1</sup> (\$/Year)	TSS (Tons / Year)	TSS <sup>2</sup> (\$/Year)	Dry Weather	Flow (MG / Year)			Flow <sup>3</sup> (\$/Year)	Total Cost
						Infiltration 3.809434%	Inflow 11.015002%	Total		
East Orange	0.0000	\$0.00	0.0000	\$0.00	0.00	0.00	0.00	0.00	\$0.00	\$0.00
Hillside	557.2508	458,292.86	83.6280	40,675.82	66.07	2.96	8.54	77.57	45,317.09	544,285.77
Irvington	942.9810	775,524.17	29.2615	14,232.50	70.69	3.16	9.14	83.00	48,487.56	838,244.23
Maplewood	10.6220	8,735.72	4.7359	2,303.49	6.88	0.31	0.89	8.07	4,716.84	15,756.05
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	0.1473	121.14	0.2612	127.05	0.68	0.03	0.09	0.80	469.11	717.30
South Orange	0.0000	0.00	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Summit <sup>4</sup>	22.9509	18,875.22	31.4179	15,281.35	26.38	1.18	3.41	30.98	18,096.23	52,252.80
Union	265.8942	218,676.07	136.0718	66,183.95	105.76	4.73	13.68	124.17	72,537.96	357,397.98
West Orange	0.0000	0.00	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1,799.8462	\$1,480,225.18	285.3763	\$138,804.16	276.47	12.37	35.75	324.59	\$189,624.79	\$1,808,654.13

- (1) At \$822.4175982/Ton  
(2) At \$486.3899183/Ton  
(3) At \$584.2014941/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**  
**2016**

Municipality	Total Assessments <sup>1</sup>	Domestic & Commercial			Assessment Percentage
		User Charge Domestic Sewage 130.608325	User Charges Industrial	Infiltration / Inflow Charges	
East Orange	\$952,939.01	\$942,339.06	\$0.00	\$10,599.95	4.1893%
Hillside	1,690,105.33	1,117,354.22	544,285.77	28,465.34	7.4300%
Irvington	4,619,033.70	3,514,931.24	838,244.23	265,858.23	20.3062%
Maplewood	1,334,898.09	1,250,444.10	15,756.05	68,697.94	5.8685%
Millburn	1,357,796.46	1,288,320.52	0.00	69,475.94	5.9691%
Newark	2,341,415.54	2,276,111.28	0.00	65,304.26	10.2933%
Roselle Park	662,293.81	620,650.76	717.30	40,925.75	2.9116%
South Orange	1,105,751.60	1,055,837.70	0.00	49,913.90	4.8611%
Summit	1,956,331.75	1,862,605.32	52,252.80	41,473.63	8.6004%
Union	3,938,700.11	3,271,346.72	357,397.98	309,955.41	17.3153%
West Orange	2,787,643.14	2,630,190.45	0.00	157,452.69	12.2552%
	<u>\$22,746,908.54</u>	<u>\$19,830,131.37</u>	<u>\$1,808,654.13</u>	<u>\$1,108,123.04</u>	<u>100.0000%</u>
Elizabeth	8,705,081.46				
<b>Total</b>	<u><u>\$31,451,990.00</u></u>				

(1) Reflects anticipated payment of \$8,705,081.46 from the City of Elizabeth which is 28.6435967% of allocation from Treatment Plant, Sludge Dewatering, and Sludge Drying budget. Exact 2016 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 2016 Assessment with 2015 Assessment**

<b>Municipality</b>	<b>2015</b>	<b>2016</b>		<b>Comparison</b>	
				<b>Amount</b>	<b>Percentage</b>
East Orange	\$896,621.93	\$952,939.01	(+)	\$56,317.08	6.28%
Hillside	1,478,969.85	1,690,105.33	(+)	211,135.48	14.28%
Irvington	4,416,262.49	4,619,033.70	(+)	202,771.21	4.59%
Maplewood	1,262,849.47	1,334,898.09	(+)	72,048.62	5.71%
Millburn	1,287,738.08	1,357,796.46	(+)	70,058.38	5.44%
Newark	2,207,472.76	2,341,415.54	(+)	133,942.78	6.07%
Roselle Park	627,098.23	662,293.81	(+)	35,195.58	5.61%
South Orange	1,033,197.47	1,105,751.60	(+)	72,554.13	7.02%
Summit	1,882,032.15	1,956,331.75	(+)	74,299.60	3.95%
Union	3,784,588.93	3,938,700.11	(+)	154,111.18	4.07%
West Orange	2,634,131.07	2,787,643.14	(+)	153,512.07	5.83%
	\$21,510,962.43	\$22,746,908.54	(+)	\$1,235,946.11	5.75%
Elizabeth	9,051,142.58	8,705,081.46	(-)	\$ (346,061.12)	-3.82%
<b>Total</b>	<b>\$30,562,105.01</b>	<b>\$31,451,990.00</b>	<b>(+)</b>	<b>\$889,884.99</b>	<b>2.91%</b>

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

City of Elizabeth percentage	
2012	38.46747020%
2013	35.50582060%
2014	34.17652380%
2015	30.67912420%

Table III, IV, V, VI, and VII, have been prepared to reflect the Domestic Sewer Usage and Industrial User assessment to each municipality for 2016 as a result of the Agreement with the City of Elizabeth which requires 28.6435967% of the 2016 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 28.6435967 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 2015.

### 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 2016 are apportioned as follows:

	<u>2016</u>	<u>2015</u>		<u>2016</u>	<u>2015</u>
East Orange	4.1893%	4.1682%	Roselle Park	2.9116%	2.9152%
Hillside	7.4300%	6.8754%	South Orange	4.8611%	4.8031%
Irvington	20.3062%	20.5303%	Summit	8.6004%	8.7492%
Maplewood	5.8685%	5.8707%	Union	17.3153%	17.5938%
Millburn	5.9691%	5.9864%	West Orange	12.2552%	12.2456%
Newark	10.2933%	10.2621%	<b>Total</b>	<b><u>100.0000%</u></b>	<b><u>100.0000%</u></b>

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**  
**2016 Budget**

	<b>Treatment Plant</b>	<b>Dewatering Facility</b>	<b>Drying Facility</b>	<b>Sewer</b>	<b>Total</b>
Electric Service	\$ 946,887	\$ 110,548	\$ 8,064	\$ -	\$ 1,065,499
Gas Service	350,200	85,000	-	-	435,200
Fuel, Oil & Kerosene	301,000	90,500	-	-	391,500
Water Service	95,000	40,000	3,500	-	138,500
Chemicals	2,225,363	593,900	6,800	2,200	2,828,263
Sludge Disposal	-	2,992,116	-	-	2,992,116
Insurance	566,490	113,299	52,872	22,659	755,320
Administration	2,143,488	1,205,680	10,000	234,318	3,593,486
Labor	5,371,198	1,062,427	134,258	16,214	6,584,097
Benefits	4,837,854	758,030	96,570	56,628	5,749,082
Equipment	400,000	168,500	-	-	568,500
Printing & Stationery	21,000	2,000	-	1,000	24,000
Maintenance, Supplies & Spare Parts	1,472,000	711,750	5,000	573,250	2,762,000
Screening Disposal	160,000	-	-	-	160,000
Reserve Contingency	125,000	-	-	-	125,000
Miscellaneous Expenses	375,727	87,500	-	120,000	583,227
Technical & Professional Services	802,500	50,000	-	25,000	877,500
Replacement Fund	1,250,000	-	-	-	1,250,000
NJPDES & Miscellaneous Permit Fee	547,000	12,000	-	9,700	568,700
	<b>\$ 21,990,707</b>	<b>\$ 8,083,250</b>	<b>\$ 317,064</b>	<b>\$ 1,060,969</b>	<b>\$ 31,451,990</b>
	69.92%	25.70%	1.01%	3.37%	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	\$ 3,934,530	80%	\$ 3,147,624	10%	\$ 393,453	10%	\$ 393,453
Power	946,887	40%	\$ 378,755	5%	\$ 47,344	55%	\$ 520,788
Chlorine	1,005,000	40%	\$ 402,000			60%	\$ 603,000
Maintenance, Equipment, Supplies, Spare Parts, & Replacement Fund	3,247,000	28%	\$ 909,160	27%	\$ 876,690	45%	\$ 1,461,150
Fuel, Oil & Kerosene	301,000	40%	\$ 120,400	30%	\$ 90,300	30%	\$ 90,300
Administration, Labor & Benefits (Payroll Retirement)	12,352,540	40%	4,941,016	10%	\$ 1,235,254	50%	\$ 6,176,270
Sludge Processing 2	203,750			50%	\$ 101,875	50%	\$ 101,875
<b>Total</b>	<b>\$21,990,707</b>		<b>\$ 9,898,955</b>		<b>\$ 2,744,916</b>		<b>\$ 9,346,836</b>
	<b>100%</b>		<b>45.0142644%</b>		<b>12.4821635%</b>		<b>42.5035721%</b>

(1) General Expenditures  
(From the Approved Budget)

Insurance	\$ 566,490
Technical & Professional Services	802,500
Stationery & Printing	21,000
Gas	350,200
Water	95,000
Miscellaneous	375,727
Service Contracts	160,000
Permit Fees	547,000
Sodium Bisulfite & Misc. Chemicals	1,016,613
	<u>\$3,934,530</u>

(2) Sludge Processing

Polymer	\$ 170,000
K2MnO4	33,750
	<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	\$ 21,990,707	\$ 9,898,955	\$ 2,744,916	\$ 9,346,836
Dewatering Facility	8,083,250		4,041,625	4,041,625
Drying Facility	317,064		158,532	158,532
	<u>\$ 30,391,021</u>	<u>\$ 9,898,955</u>	<u>\$ 6,945,073</u>	<u>\$13,546,993</u>
Subtotal	100.00%	32.5719725%	22.8523846%	44.5756429%
Sewers 1	\$ 1,060,969			
Total	<u>\$ 31,451,990</u>			

(1) Joint Meeting Members Only

**JOINT MEETING OF ESSEX & UNION COUNTIES**

**INDUSTRIAL USER CHARGE - 2016  
SUMMARY**

<b>MUNICIPALITY</b>	<b>FLOW (MG)</b>	<b>LOADINGS</b>	
		<b>BOD (tons)</b>	<b>TSS (tons)</b>
HILLSIDE	77.571	557.25080262	83.62796973
IRVINGTON	82.998	942.98101095	29.26148631
MAPLEWOOD	8.074	10.62198663	4.73591070
MURRAY HILL	16.700	1.23815640	2.83348164
ROSELLE PARK	0.803	0.14733444	0.26118378
SUMMIT	14.276	21.71268960	28.58441175
UNION	124.166	265.89418281	136.07178708
<b>MEMBERS TOTAL</b>	<b>324.588</b>	<b>1799.84616345</b>	<b>285.37623099</b>
<b>ELIZABETH</b>	<b>186.662</b>	<b>1751.89201830</b>	<b>300.17868015</b>
<b>GRAND TOTAL</b>	<b>511.250</b>	<b>3551.73818175</b>	<b>585.55491114</b>

<b>MUNICIPALITY</b>	<b>FLOW</b>	<b>COSTS</b>		
		<b>BOD</b>	<b>TSS</b>	<b>TOTAL</b>
HILLSIDE	\$45,317.09	\$458,292.87	\$40,675.80	\$544,285.76
IRVINGTON	\$48,487.56	\$775,524.18	\$14,232.49	\$838,244.23
MAPLEWOOD	\$4,716.84	\$8,735.71	\$2,303.50	\$15,756.05
MURRAY HILL	\$9,756.16	\$1,018.28	\$1,378.18	\$12,152.62
ROSELLE PARK	\$469.11	\$121.17	\$127.04	\$717.32
SUMMIT	\$8,340.06	\$17,856.90	\$13,903.17	\$40,100.13
UNION	\$72,537.96	\$218,676.06	\$66,183.95	\$357,397.96
<b>MEMBERS TOTAL</b>	<b>\$189,624.79</b>	<b>\$1,480,225.16</b>	<b>\$138,804.12</b>	<b>\$1,808,654.08</b>
<b>ELIZABETH</b>	<b>\$95,006.49</b>	<b>\$1,440,786.83</b>	<b>\$146,003.88</b>	<b>\$1,681,797.20</b>
<b>GRAND TOTAL</b>	<b>\$284,631.28</b>	<b>\$2,921,011.98</b>	<b>\$284,808.01</b>	<b>\$3,490,451.27</b>

JOINT MEETING OF ESSEX & UNION COUNTIES

INDUSTRIAL USER CHARGE - 2016  
COST FACTORS

	FLOW	BOD	TSS
MEMBER MUNICIPALITIES	\$584.2014941	\$822.4175982	\$486.3899183
ELIZABETH	\$508.9760391	\$822.4175982	\$486.3899183

## JOINT MEETING OF ESSEX &amp; UNION COUNTIES

## INDUSTRIAL USER CHARGE - 2016

Municipality: HILLSIDE

IU #	INDUSTRY	SITE	Concentration		FLOW (MG)	Cost Factors			ANNUAL PAYMENT
			BOD (mg/l)	TSS (mg/l)		Flow per MG \$584.2014941	BOD per Ton \$822.4175982	TSS per Ton \$486.3899183	
1042	GEC Marconi / BAE	1	2	5	7.191	0.0600	0.1499		
	Totals:				7.191	0.0600	0.1499		
	Cost Analysis:				\$4,200.99	\$49.32	\$72.93		\$4,323.24
1050	Manhattan Drug Co.	4	468	356	0.587	1.1456	0.8714		
	Totals:				0.587	1.1456	0.8714		
	Cost Analysis:				\$342.93	\$942.13	\$423.85		\$1,708.91
1094	Oasis Foods (AAK Inc.)	3 99	3854 211	1387 180	7.476 0.747	120.1481 0.6573	43.2396 0.5607		
	Totals:				8.223	120.8054	43.8003		
	Cost Analysis:				\$4,803.89	\$99,352.49	\$21,304.03		\$125,460.41
1090	Union Beverages	1 2	1815 434	136 598	53.752 0.755	406.8247 1.3664	30.4838 1.8827		
	Totals:				54.507	408.1911	32.3665		
	Cost Analysis:				\$31,843.07	\$335,703.53	\$15,742.76		\$383,289.36
1091	Hillside Beverage	2 99	1140 211	37 180	3.428 0.078	16.2960 0.0686	0.5289 0.0585		
	Totals:				3.506	16.3647	0.5875		
	Cost Analysis:				\$2,048.21	\$13,458.58	\$285.73		\$15,792.52
1092	A&H Products	1 99	773 211	342 180	2.096 0.156	6.7563 0.1373	2.9892 0.1171		
	Totals:				2.252	6.8935	3.1063		
	Cost Analysis:				\$1,315.62	\$5,669.36	\$1,510.86		\$8,495.84
1093	Sam Hak Foods	1 99	748 211	539 180	1.180 0.125 1.305	3.6806 0.1100 3.7906	2.6522 0.0938 2.7460		
					\$762.38	\$3,117.45	\$1,335.64		\$5,215.47
HILLSIDE TOTALS					77.5710 \$45,317.09	557.2508 \$458,292.87	83.6280 \$40,675.80		\$544,285.76

\*Quest Industries has vacated the Hillside location as of May 2015.

\*\*Sam Hak Foods NEW Industrial User.

## JOINT MEETING OF ESSEX &amp; UNION COUNTIES

## INDUSTRIAL USER CHARGE - 2016

Municipality: IRVINGTON

			Cost Factors					
			Concentration		Flow per MG	BOD per Ton	TSS per Ton	
					\$584.2014941	\$822.4175982	\$486.3899183	
IU #	Cost Factors	SITE	BOD (mg/l)	TSS (mg/l)	FLOW (MG)	BOD (Tons)	TSS (Tons)	ANNUAL PAYMENT
2066	Wayne County Foods	1	2475	109	0.166	1.7132	0.0755	
		99	211	180	0.131	0.1153	0.0983	
	Totals:			0.297	1.8285	0.1738		
	Cost Analysis:			\$173.51	\$1,503.80	\$84.53	\$1,761.83	
2072	Clean-Tex Services	1	223	74	44.224	41.1243	13.6466	
		99	211	180	0.183	0.1610	0.1374	
	Totals:			44.407	41.2854	13.7840		
	Cost Analysis:			\$25,942.64	\$33,953.80	\$6,704.40	\$66,600.84	
2076	International Vitamin	1	840	96	2.084	7.2998	0.8343	
		Totals:			2.084	7.2998	0.8343	
	Cost Analysis:			\$1,217.48	\$6,003.51	\$405.78	\$7,626.77	
2078	City Barrel	1	96	28	0.308	0.1233	0.0360	
		99	211	180	0.060	0.0528	0.0450	
	Totals:			0.368	0.1761	0.0810		
	Cost Analysis:			\$214.99	\$144.82	\$39.40	\$399.20	
3055	Maplewood Beverage	2	6058	95	35.307	891.9205	13.9869	
		99	211	180	0.535	0.4707	0.4016	
	Totals:			35.842	892.3912	14.3884		
	Cost Analysis:			\$20,938.95	\$733,918.25	\$6,998.39	\$761,855.59	
IRVINGTON TOTALS					82.9980	942.9810	29.2615	
					\$48,487.56	\$775,524.18	\$14,232.49	\$838,244.23

## JOINT MEETING OF ESSEX &amp; UNION COUNTIES

## INDUSTRIAL USER CHARGE - 2016

Municipality: MAPLEWOOD

IU #	INDUSTRY	SITE	Concentration	Cost Factors				ANNUAL PAYMENT
				Flow per MG	BOD per Ton	TSS per Ton		
				\$584.2014941	\$822.4175982	\$486.3899183		
			BOD (mg/l)	TSS (mg/l)	FLOW (MG)	BOD (Tons)	TSS (Tons)	
3020	Gleason Cleaners	1	212	50	0.624	0.5516	0.1301	
		99	211	190	0.114	0.1003	0.0903	
		Totals:			0.738	0.6519	0.2204	
		Cost Analysis:			\$431.14	\$536.17	\$107.21	\$1,074.53
3033	NJ Transit - Hilton Gar.	3a	380	455	1.758	2.7857	3.3355	
		4	381	56	4.349	6.9096	1.0156	
		Totals:			6.107	9.6953	4.3511	
		Cost Analysis:			\$3,567.72	\$7,973.58	\$2,116.34	\$13,657.63
3046	UniClean	1	28	8	1.057	0.1234	0.0353	
		99	211	180	0.172	0.1513	0.1291	
		Totals:			1.229	0.2748	0.1644	
		Cost Analysis:			\$717.98	\$225.96	\$79.95	\$1,023.89
MAPLEWOOD TOTALS					8.0740	10.6220	4.7359	
					\$4,716.84	\$8,735.71	\$2,303.50	\$15,756.05



## JOINT MEETING OF ESSEX &amp; UNION COUNTIES

## INDUSTRIAL USER CHARGE - 2016

Municipality: MURRAY HILL

IU #	INDUSTRY	SITE	Concentration	Cost Factors				ANNUAL PAYMENT
				Flow per MG	BOD per Ton	TSS per Ton		
				\$584.2014941	\$822.4175982	\$486.3899183		
			BOD (mg/l)	TSS (mg/l)	FLOW (MG)	BOD (Tons)	TSS (Tons)	
5010	Alcatel-Lucentd USA	1	17	41	15.398	1.0916	2.6326	
	Totals:				15.398	1.0916	2.6326	
	Cost Analysis:				\$8,995.53	\$897.72	\$1,280.47	\$11,173.72
5021	FRC-Electrical Ind	1	27	37	1.302	0.1466	0.2009	
	Totals:				1.302	0.1466	0.2009	
	Cost Analysis:				\$760.63	\$120.56	\$97.71	\$978.90
MURRAY HILL TOTALS					16.7000	1.2382	2.8335	
					\$9,756.16	\$1,018.28	\$1,378.18	\$12,152.62

## JOINT MEETING OF ESSEX &amp; UNION COUNTIES

## INDUSTRIAL USER CHARGE - 2016

Municipality: ROSELLE PARK

IU #	INDUSTRY	SITE	Concentration	Cost Factors			ANNUAL PAYMENT	
				Flow per MG	BOD per Ton	TSS per Ton		
				\$584.2014941	\$822.4175982	\$486.3899183		
			BOD (mg/l)	TSS (mg/l)	FLOW (MG)	BOD (Tons)	TSS (Tons)	
6005	Hexacon Electric	2	44	78	0.803	0.1473	0.2612	
	Totals:				0.803	0.1473	0.2612	
	Cost Analysis:				\$469.11	\$121.17	\$127.04	\$717.32
ROSELLE PARK TOTALS					0.8030	0.1473	0.2612	
					\$469.11	\$121.17	\$127.04	\$717.32

## JOINT MEETING OF ESSEX &amp; UNION COUNTIES

## INDUSTRIAL USER CHARGE - 2016

Municipality: SUMMIT

IU #	INDUSTRY	SITE	Concentration		Cost Factors			ANNUAL PAYMENT
					Flow per MG \$584.2014941	BOD per Ton \$822.4175982	TSS per Ton \$486.3899183	
			BOD (mg/l)	TSS (mg/l)	FLOW (MG)	BOD (Tons)	TSS (Tons)	
5511	Novartis Groundwater	4	1	3	0.893	0.0037	0.0112	
	Totals:				0.893	0.0037	0.0112	
	Cost Analysis:				\$521.69	\$3.06	\$5.43	\$530.19
5512	Summit Property Co. (MSD Corp)							
5513	Celgene Corporation	1	389	512	13.383	21.7090	28.5732	
	Totals:				13.383	21.7090	28.5732	
	Cost Analysis:				\$7,818.37	\$17,853.84	\$13,897.74	\$39,569.94
SUMMIT TOTALS					14.2760 \$8,340.06	21.7127 \$17,856.90	28.5844 \$13,903.17	\$40,100.13

\*Summit Property Co. - Closed after sale of property in October 2015.  
(MSD Corp)

## JOINT MEETING OF ESSEX &amp; UNION COUNTIES

## INDUSTRIAL USER CHARGE - 2016

Municipality: UNION

IU #	INDUSTRY	SITE	Concentration	BOD (mg/l)	TSS (mg/l)	Cost Factors			ANNUAL PAYMENT
						Flow per MG \$584.2014941	BOD per Ton \$822.4175982	TSS per Ton \$486.3899183	
7015	ACuPowder	3 (99)	211	180	0.016	0.0141	0.0120		
		4	134	207	0.486	0.2716	0.4195		
	Totals:				0.502	0.2856	0.4315		
	Cost Analysis:				\$293.27	\$234.92	\$209.89		\$738.08
7035	American Products	1	272	337	0.703	0.7974	0.9879		
	Totals:				0.703	0.7974	0.9879		
	Cost Analysis:				\$410.69	\$655.77	\$480.51		\$1,546.98
7070	Durex	1	123	272	3.149	1.6152	3.5717		
	Totals:				3.149	1.6152	3.5717		
	Cost Analysis:				\$1,839.65	\$1,328.33	\$1,737.25		\$4,905.23
7077	Evoqua Water Tech	4	85	126	2.280	0.8081	1.1980		
	Totals:				2.280	0.8081	1.1980		
	Cost Analysis:				\$1,331.98	\$664.63	\$582.67		\$2,579.29
7080	Foremost Mfg	2	23	254	18.039	1.7301	19.1065		
	Totals:				18.039	1.7301	19.1065		
	Cost Analysis:				\$10,538.41	\$1,422.88	\$9,293.23		\$21,254.52
7092	International Paint	2	16	24	7.400	0.4937	0.7406		
	Totals:				7.400	0.4937	0.7406		
	Cost Analysis:				\$4,323.09	\$406.05	\$360.22		\$5,089.36
7145	Merck Sharp & Dohme Corp. (Schering)	5	5	11	25.425	0.5301	1.1662		
	Totals:				25.425	0.5301	1.1662		
	Cost Analysis:				\$14,853.32	\$435.97	\$567.25		\$15,856.55
7155	Tessler & Weiss	22	157	215	1.158	0.7581	1.0382		
	Totals:				1.158	0.7581	1.0382		
	Cost Analysis:				\$676.51	\$623.50	\$504.97		\$1,804.98
7167	Turbo Braze								
7191	Cintas (Location 111)	1	246	163	30.056	30.8320	20.4294		
	Totals:				30.056	30.8320	20.4294		
	Cost Analysis:				\$17,558.76	\$25,356.82	\$9,936.64		\$52,852.21
7192	Merril Corporation	1	407	392	0.932	1.5818	1.5235		
	Totals:				0.932	1.5818	1.5235		
	Cost Analysis:				\$544.48	\$1,300.88	\$741.01		\$2,586.37
7193	Lioni Latticini	1	2014	434	8.284	69.5722	14.9922		
	Totals:	99	211	180	0.312	0.2745	0.2342		
	Cost Analysis:				8.596	69.8467	15.2264		
					\$5,021.80	\$57,443.15	\$7,405.97		\$69,870.92

## JOINT MEETING OF ESSEX &amp; UNION COUNTIES

## INDUSTRIAL USER CHARGE - 2016

Municipality: UNION

					Cost Factors			
					Flow per MG	BOD per Ton	TSS per Ton	
					\$584.2014941	\$822.4175982	\$486.3899183	
			Concentration					
IU #	INDUSTRY	SITE	BOD (mg/l)	TSS (mg/l)	FLOW (MG)	BOD (Tons)	TSS (Tons)	ANNUAL PAYMENT
7194	BASF Catalysts	1	29	317	0.106	0.0128	0.1401	
		99	211	180	0.841	0.7400	0.6313	
		Totals:			0.947	0.7528	0.7714	
		Cost Analysis:			\$553.24	\$619.09	\$375.18	\$1,547.51
7195	Deep Foods	1	2167	1044	12.480	112.7741	54.3314	
		3	1013	141	7.242	30.5917	4.2581	
		4	1297	485	1.364	7.3772	2.7586	
		5(99)	211	180	0.794	0.6986	0.5960	
		6(99)	211	180	0.069	0.0607	0.0518	
		2(99)	211	180	0.309	0.2719	0.2319	
		Totals:			22.258	151.7743	62.2278	
		Cost Analysis:			\$13,003.16	\$124,821.83	\$30,266.99	\$168,091.97
7916	Cintas Corporation	1	365	690	2.638	4.0152	7.5903	
		99	211	180	0.083	0.0730	0.0623	
		Totals:			2.721	4.0882	7.6526	
		Cost Analysis:			\$1,589.61	\$3,362.21	\$3,722.16	\$8,673.97
UNION TOTALS					124.1660	265.8942	136.0718	
					\$72,537.96	\$218,676.06	\$66,183.95	\$357,397.94

\*Turbo Braze has ceased operations at the Union location as of October 2015.

## JOINT MEETING OF ESSEX &amp; UNION COUNTIES

## INDUSTRIAL USER CHARGE - 2016

Municipality: ELIZABETH

IU #	INDUSTRY	SITE	Concentration		Cost Factors			ANNUAL PAYMENT
			BOD (mg/l)	TSS (mg/l)	Flow per MG \$508.9760391	BOD per Ton \$822.4175982	TSS per Ton \$466.3899183	
0192	Wild Flavors Inc.	1	1516	156	0.110	0.6954	0.0716	
	Totals:				0.110	0.6954	0.0716	
	Cost Analysis:				\$55.99	\$571.90	\$34.80	\$662.69
0037	Deb-EI Foods	1	2772	630	9.237	106.7727	24.2665	
	Totals:				9.237	106.7727	24.2665	
	Cost Analysis:				\$4,701.41	\$87,811.75	\$11,802.99	\$104,316.15
0062	Garcia Laundry	2	814	330	2.853	9.6842	3.9260	
		99	211	180	0.113	0.0994	0.0848	
	Totals:				2.966	9.7836	4.0108	
	Cost Analysis:				\$1,509.62	\$8,046.20	\$1,950.83	\$11,506.65
0067	Actavis (formerly Purepac)	3	650	246	19.471	52.7761	19.9737	
	Totals:				19.471	52.7761	19.9737	
	Cost Analysis:				\$9,910.27	\$43,404.03	\$9,715.03	\$63,029.33
0070	LORCO	2	6215	69	14.701	380.9992	4.2299	
	Totals:				14.701	380.9992	4.2299	
	Cost Analysis:				\$7,482.46	\$313,340.45	\$2,057.39	\$322,880.29
0075	Mastercraft Electroplating	99	211	180	0.026	0.0229	0.0195	
	Totals:				0.026	0.0229	0.0195	
	Cost Analysis:				\$13.23	\$18.81	\$9.49	\$41.54
0078	Magnolia Beef	1	555	217	0.126	0.2916	0.1140	
		99	211	180	0.286	0.2516	0.2147	
	Totals:				0.412	0.5433	0.3287	
	Cost Analysis:				\$209.70	\$446.78	\$159.87	\$816.35
0093	OENJ	4	9	28	10.296	0.3864	1.2022	
	Totals:				10.296	0.3864	1.2022	
	Cost Analysis:				\$5,240.42	\$317.79	\$584.72	\$6,142.93
0098	Olympia Trails	1	1199	161	2.046	10.2297	1.3736	
		99	211	180	0.515	0.4531	0.3866	
	Totals:				2.561	10.6828	1.7602	
	Cost Analysis:				\$1,303.49	\$8,785.71	\$856.13	\$10,945.33
0100	Michaels Foods - North Avenue Facility	4	3384	621	38.992	550.2270	100.9725	
		4a	3533	321	7.272	107.1355	9.7341	
		4b	2054	238	5.951	50.9714	5.9061	
		99	211	180	1.190	1.0470	0.8932	
	Totals:				53.405	709.3810	117.5059	
	Cost Analysis:				\$27,181.87	\$583,407.42	\$57,153.70	\$667,742.99

## JOINT MEETING OF ESSEX &amp; UNION COUNTIES

## INDUSTRIAL USER CHARGE - 2016

Municipality: ELIZABETH

IU #	INDUSTRY	SITE	Concentration		Cost Factors			ANNUAL PAYMENT
			BOD (mg/l)	TSS (mg/l)	Flow per MG \$508.9760391	BOD per Ton \$822.4175982	TSS per Ton \$486.3899183	
0105	Michaels Foods - Papetti Plaza Facility	2	2031	459	41.431	350.8903	79.3002	
		2a	2710	683	6.373	72.0194	18.1510	
		2b	1279	449	3.269	17.4350	6.1206	
		3	355	487	0.619	0.9163	1.2571	
		Totals:			51.6920	441.2610	104.8289	
	Cost Analysis:			\$26,309.99	\$362,900.82	\$50,987.71	\$440,198.52	
0120	Phelps Dodge							
0148	Superior Powder Coating	1	299	51	2.645	3.2979	0.5625	
		99	211	180	0.419	0.3687	0.3145	
		Totals:			3.064	3.6665	0.8770	
		Cost Analysis:			\$1,559.50	\$3,015.42	\$426.57	\$5,001.49
	0195	Duro Hilex Poly LLC (Formerly Duro-Bag)	1	367	142	3.651	5.5875	2.1619
2			110	156	1.737	0.7968	1.1300	
3			269	393	2.615	2.9333	4.2855	
Totals:					8.003	9.3175	7.5773	
Cost Analysis:				\$4,073.34	\$7,662.91	\$3,685.54	\$15,421.79	
0165	Wakefern Food Corp.	2	91	116	1.596	0.6056	0.7720	
		3a	209	465	3.918	3.4147	7.5972	
		4	365	280	0.999	1.5205	1.1664	
		99 (7)	211	180	0.033	0.0290	0.0248	
		Totals:			6.546	5.5699	9.5604	
	Cost Analysis:			\$3,331.76	\$4,580.74	\$4,650.09	\$12,562.59	
0178	814 Americas	3	349	147	1.837	2.6734	1.1261	
		99	211	180	0.053	0.0466	0.0398	
		Totals:			1.890	2.7201	1.1658	
		Cost Analysis:			\$961.96	\$2,237.04	\$567.05	\$3,766.06
	0189	Prince Donut Co.	3	4697	724	0.874	17.1186	2.6387
99			211	180	0.181	0.1593	0.1359	
Totals:					1.055	17.2778	2.7745	
Cost Analysis:					\$536.97	\$14,209.61	\$1,349.51	\$16,096.08
0194		Erie Street Former (Former MGP Site)	1	7	5	1.227	0.0358	0.0256
	Totals:				1.227	0.0358	0.0256	
	Cost Analysis:				\$624.51	\$29.46	\$12.44	\$666.41
ELIZABETH TOTALS					186.6620	1,751.8920	300.1787	
					\$95,006.49	\$1,440,786.83	\$146,003.88	\$1,681,797.20

Phelps Dodge - Industrial User Permit was NOT renewed due to being a ZERO PROCESS DISCHARGE Facility.