Kearny Municipal Utilities Authority Hudson County, New Jersey 2017 Sanitary Sewer User Charge Study April 2017



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Introduction

The Kearny Municipal Utilities Authority (KMUA) provides sewer service to a portion of the Town of Kearny known as South Kearny and the Kearny Meadowlands. Wastewater collected by the KMUA from these areas flows to the Kearny Point Pumping Station (formerly the South Kearny Treatment Facility), which is located at the southern tip of the Kearny Point Peninsula. The wastewater receives preliminary treatment at the pumping station and is then pumped to the Passaic Valley Sewerage Commission (PVSC) Treatment Facility in Newark to provide for secondary treatment and ultimate discharge to Upper New York Bay.

The South Kearny service area comprises of the original sewer system that dates back to the early 1900's. These combined sewers receive both sanitary and storm flows. Until 1998, this was the only tributary service area of the KMUA. In 1998, a new gravity sewer, sewage pump station and force main were constructed by the KMUA to provide sewer service to the Kearny Meadowlands. The collection system constructed in this district is a separate sanitary sewer system.

Currently, the KMUA facilities comprise of approximately 10 miles of sewers as well as the sewage facilities constructed in 1998 for the Meadowlands User District and the Kearny Point Pumping Station. KMUA has financial responsibility for the maintenance and operation of these facilities. A user charge system is required in order to provide the funds needed for Authority operations, maintenance and repayment of debt associated with these facilities. The charge system is intended to recover the costs required to provide sewer service to the users that are within the KMUA service area. Accordingly, the KMUA has authorized Mott MacDonald to prepare this study to review the cost of system operation and current revenues for the purpose of establishing a sewer use charge system which equitably recoups the cost of the KMUA services to its users.

User Classifications

Currently, there are 59 active KMUA customers. It is recognized, however, that there are several users within the KMUA system whose nature of operation is either such that there is much greater water consumption than actual sewer discharge or vice-versa. Accordingly, although most users will be billed based on municipal water meters, some users will require special water or sewage metering. The KMUA customers are segregated into three classes as follows:



Class I All customers with billing based on municipal water utility meters.

Class II Customers with billing based on private water meters.

Class III Customers with billing based on wastewater meters.

For 2017, 47 customers will be Class I customers and will have their sewer bills based upon the previous year's water consumption. In cases where Suez Water (formerly United Water) used an estimated consumption values in the past year, the customer's historical data will be reviewed and compared to the estimated usage. If the estimated usage is within the reasonable range of the customer's consumption then the data will be accepted as is, otherwise an average of the past four years of actual historical data will be used in lieu of the estimated values provided by Suez Water. In cases where the Suez Water used an estimated consumption values in the past two or more years and the estimates have been comparable, the estimated values provided by Suez Water will be used for the purposes of this study.

In cases where a significant amount of water consumed by a customer is not returned to the sewer system as wastewater, a Class II customer would be allowed to install additional private water meters. These meters would be placed to allow measurement of those water uses which generate wastewater. The anticipated Class II customers will include the following:

- 1) River Terminal Jacobus Avenue Property (JAP)
- 2) River Terminal Central Avenue Property (CAP)
- 3) Hugo Neu (Formerly RTL Services Inc.)
- 4) Kuehne Chemical Company
- 5) Leeds Terminal

Class II customer status is subject to review and approval of KMUA with the requirement that KMUA representatives are authorized to monitor and inspect all meters utilized for the measurement of water for billing purposes. Due to the lack of private water meter data from Leeds Terminal, sewage discharges for this customer were based on the Leeds municipal water meter.

Customers that have actual wastewater flow are classified as Class III customers. Other than the New Jersey Sports and Exposition Authority (NJSEA) (formerly NJ Meadowlands Commission) and U.S.



Postal Services which provide their own flow data, most of Class III customer flow information is monitored by PVSC. This data includes volume, BOD and TSS values which are also used to perform surcharge calculations shown on Table 3.

The Class III customers for 2017 are:

- 1) NJ Transit Meadows Maintenance Complex
- 2) Talbot Hall (Community Education Corporation)
- 3) Spectraserv
- 4) OJ Food Grade Tank Truck Wash, Inc.
- 5) Hudson County Correctional Facility (Hudson County Jail)
- 6) NJSEA
- 7) U.S. Postal Service

Under the user charge system, a consistent charge per unit volume of water/wastewater will be applied to the water consumption (Class I and II) or wastewater generation (Class III) of each customer. Since the municipal water utility meters flow in "Hundred Cubic Feet" units of volume, it is recommended that this measurement unit also be continued by the KMUA for wastewater charges.

KMUA Revenue Requirements

The costs of operating the KMUA fall into many categories which are summarized in the annual KMUA budget. Table 1 of this report shows the annual KMUA budgets for the years 2012 - 2017. This provides the breakdown of revenues, expenses, and debt service for this time period. The corresponding Charts 1 to 5 also predict the KMUA budget and revenue requirements through 2020.

Table 1

Table 1 shows that the annual revenue requirement has risen by approximately 21.16% since 2012. In 2012 the budget was approximately \$3.883 million while in 2017 the budget is approximately \$4.704 million. Charts 1 to 5 indicate average percent increases of significant items based upon extending trends from 2012 - 2017 into the year 2020 and also by reviewing debt service (which can be quite

^{*} NJSEA not assessed PVSC fees based upon April 2004 Agreement between EnCAP and PVSC



variable depending upon how repayment of the KMUA debt is structured and also will need to be adjusted if additional debt is incurred during this period). The total debt service this year is \$1,879,695.00. This includes bond and note interest.

Another significant cost component of the KMUA is the amount paid to the PVSC for wastewater treatment. The 2017 KMUA revenue requirement for PVSC charges is based upon the actual invoice from PVSC to the Town of Kearny and is \$1,044,000.00. This cost is variable as it depends on metered wastewater flows that include infiltration and inflow components of sewage flows which will rise and fall depending on rainfall amounts. It also depends upon the quantity of Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS) contained in the wastewater. It is also noted that the amounts above are KMUA's share of the total PVSC bill to the Town of Kearny. For 2017, the unit costs that PVSC charges for flow and TSS have increased.

YEAR	VOL (per million gallons)	BOD (per 1,000 #)	TSS (per 1,000 #)
2017	\$ 484.7384	\$ 434.3448	\$ 450.9424
2016	\$ 460.0408	\$ 444.4521	\$ 445.4690
2015	\$ 445.7042	\$ 436.4175	\$ 448.0926
2014	\$ 442.5107	\$ 415.8246	\$ 429.2818
2013	\$ 433.5509	\$ 403.7363	\$ 417.9495
2012	\$ 412.4249	\$ 387.8630	\$ 417.6262
2011	\$ 428.8251	\$ 394.7860	\$ 405.4650
2010	\$ 434.8033	\$ 406.5939	\$ 401.8539
2009	\$ 527.4634	\$ 323.9473	\$ 350.6006
2008	\$ 497.0068	\$ 302.8574	\$ 329.0207
2007	\$ 490.5578	\$ 288.7095	\$ 319.8936

The PVSC unit cost for flow has increased by 5.37% from last year's unit charge. Historically, the cost has increased from 2007 to 2009 by 7.52%, but decreased from 2009 to 2014 by 15.50%. BOD increased from 2007 to 2010 by 40.83% but decreased by 4.61% from 2010 to 2012 before it started to increase again between 2012 to 2016. This year's BOD charge has decreased by 2.27% from last year's unit charge. TSS has constantly increased from 2007 to 2017 by 40.97%.



Table1A

Table 1A isolates the 2017 Summary of Budget Data for the purpose of establishing the 2017 KMUA revenue requirement through user charges. The 2017 total KMUA revenue requirement is approximately \$4.704 million dollars. The KMUA has also earned interest on investments and deposits in the amount of \$2,000.00 and represents revenue that can be applied towards the total KMUA revenue earned in 2016 to approximately \$4.09 million dollars.

Revenue Sources

The KMUA continues to have three primary sources of revenue under the current sewer rate structure as follows:

- Base Sewer Rate per Hundred Cubic Feet (HCF) of water consumption (Class I) & (Class II) or Hundred Cubic Feet (HCF) of wastewater discharged (Class III).
- 2. Surcharges on Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS).
- 3. Connection Fees charged to new customers of the KMUA

Table 3

For the purpose of establishing the surcharges on biochemical oxygen demand and total suspended solids, Table 3 has been prepared. This table presents the flow rates and BOD and suspended solids load which are monitored by PVSC and billed to the Town of Kearny. PVSC also monitors six industries within the KMUA district. PVSC provides KMUA with the monitoring results for these industries including flow, BOD (per 1,000 lbs.) and suspended solids (per 1,000 lbs.). It is noted that typical wastewater contains both BOD and suspended solids and the Town of Kearny wastewater taken in total has concentrations of 154.16 milligrams per liter of BOD and 138.89 milligrams per liter of suspended solids. It should be recognized that these are average concentrations with some customers contributing higher and others lower than these concentrations. We have computed the BOD and suspended solids concentration for each monitored industry for the purpose of determining which industries contribute higher than the average concentration and to the extent that this is the case, determining the excess BOD and suspended solids. Where the BOD or suspended solids are less than the Town of Kearny average for these industries, no surcharge is assessed. Based upon this analysis, the KMUA can anticipate \$20,898.88 in BOD and suspended solids surcharge revenue which will defray a portion of the total PVSC bill of \$1,044,000.00. Accordingly, the remaining PVSC charge of



\$1,1023,101.12 will need to be funded through the flow based sewer rate along with the other operations, maintenance and debt service requirements listed in Table 1A.

2017 User Charge

To arrive at the base sewer rate per 100 cubic feet, we have totalized the flow records of all users and arrived at a total annual water consumption (Class I and II) or wastewater generation (Class III) amount of 491,118 hundred cubic feet. This is shown in Table 2.

In 2004, an agreement was made between the New Jersey Meadowlands Commission (EnCAP) and PVSC. The agreement provided that the NJMC was not to be assessed PVSC user charges from that point forward. The New Jersey Sports and Exposition Authority (NJSEA) is the successor to NJMC. To comply with this agreement, the user rate was calculated by segregating the total KMUA revenue requirement from all service charges of \$4,704,299.25 into two components. These include the KMUA local revenue requirement of \$3,660,299.25 and the PVSC charges of \$1,044,000.00. The first component applies to all KMUA users including the NJSEA. The PVSC charges are partially defrayed by the BOD/TSS surcharges of \$20,898.88. The remaining PVSC charge (\$1,023,101.12) is recovered from all KMUA users except the NJSEA through the base charge for flow.

The KMUA local revenue requirement of \$3,660,299.25 is then divided by the total volume of 491,118 HCF and results in the whole rate of \$7.46/HCF. The KMUA volume excluding the NJMC volume is 275,555 HCF. The PVSC charges of \$1,023,101.12 are then divided by the 275,555 HCF and results in the whole rate of \$3.72/HCF. Accordingly, the 2017 KMUA user charge is \$11.18/HCF to all KMUA customers with the exception of the NJSEA, where the applicable rate is \$7.46/HCF.

Table 2 provides for this calculation and for the 2017 charge for the individual KMUA users. Columns 1-5 provide a description of the customer. Column 6 identifies their flow in HCF. Column 7 provides their charge based upon \$7.46/HCF. Column 8 provides their PVSC charge based upon \$3.72/HCF. Where BOD or suspended solids surcharge has been identified for a monitored industry in Table 3, Column 9 identifies their surcharge. Column 10 is the summation of Columns 7-9 as applicable and is the total charge for those users.



The local component of the rate of \$7.46/HCF represents a 5.82% increase from the rate of \$7.05 in 2016. The PVSC component of the rate of \$3.72/HCF represents a 4.79% increase from the rate of \$3.55 in 2016. The undefrayed PVSC charges are accordingly, distributed amongst the other customers. The overall rate of \$11.18/HCF represents an increase of 5.47% from the 2016 rate of \$10.60/HCF.

Connection Fee

The method of establishing the connection fee is established by regulation which generally provides that the connection fee be computed annually based upon taking the total past capital expenditures of the Authority including funds taken from annual general revenues to pay for capital improvements as well as debt service (principal and interest) paid by KMUA for improvements to the system and dividing this amount by the total number of EDU's within the system.

In 2016, no new connections were made to the system. Based upon the total EDU's within KMUA's system of 8,858 EDU's and the total debt service paid through December 31, 2016 of \$31,586,571, the connection fee for 2017 is \$3,565.88/EDU.

It is emphasized that only the cost that has already been paid by the existing customers is included in the computation in order to represent the investment that these customers have made in the system. The connection fee is intended to allow the new customer to connect to the system with an investment of a similar magnitude. It is recommended that the Authority annually update the connection fee each year. As the Authority pays principal and interest on bonds each year the connection fee will increase incrementally each year. The connection fees can be used as a revenue source which can either defray future operating costs or can accelerate the repayment of debt. In either case, it generally has a stabilizing effect on user fees.

April, 2017

Kearny Municipal Utilities Authority Hudson County, New Jersey 2017 User Charge Setting Report Table 1 - Summary of Budget Data

	TA	ABLE 1-SUMMA	RY (OF BUDGET DAT	ΓA 2	012-2017						
		2012		2013		2014		2015		2016		2017
		BUDGET [™]		BUDGET [↑]		BUDGET [™]		BUDGET [↑]		BUDGET [™]		BUDGET [†]
REVENUES		3		4	l	5		5		5		
Operating Revenues	71 10 10 10	ON 110 VANCO	N.	FILE SHIP IN SHIP			DX.				1872	
Service Charges	s	3,695,733.00	\$	3,701,296,00	\$	3,848,891.00	\$	3,995,707,00	\$	4,051,058.00	\$	4,088,695.00
Connection Fees											l	
Parking Fees											l	
Other Operating Revenues												
Non-Operating Revenues			12		ii)		25				100	TEV STAT
Op Grants & Entitlements												
Local Subsidies & Donations								217,720045000	-5			
Interest on investments & deposits	\$	2,231.00	\$	2,000.00	\$	2,000.00	\$	2,000.00	\$	2,000.00	\$	2,000.00
Other Non-Op Revenues												
Total Revenues	\$	3,697,964.00	\$	3,703,296.00	\$	3,850,891.00	\$	3,997,707.00	\$	4,053,058.00	\$	4,090,695.00
APPROPRIATIONS												
Administration	(C)			T. But San	835		-83		34		Me	
Salaries and Wages	\$	72,095.00	\$	171,731.00	\$	177,717.00	\$	179,000.00	\$	181,000.00	\$	185,000.00
Employees Benefits (Fringe)	\$	54,503,00	\$	93,360.00	\$	74,460.00	\$	79,000.00	\$	85,000.00	\$	80,000.00
Other Legal/Admin Expenses	\$	150,000.00	\$	150,000.00	\$	138,000.00	\$	145,000.00		150,000.00	\$	150,000.00
Total Administration	\$	276,598.00	\$	415,091.00	\$	390,177.00	\$	403,000.00	\$	416,000.00	\$	415,000.00
Cost of Providing Services (COPS)	8° 131		183		13	200-110	3		1		233	
Total Non-PVSC COPS*	\$	582,985.00		579,577.00		729,029.00		859,000.00	ш	745,000.00		752,000.00
Passaic Valley SC	\$	860,000.00		860,000.00	\$	860,000.00	10000	860,000.00		1,010,000.00	\$	1,044,000.00
Total Operations	\$	1,442,985.00	\$	1,439,577.00	\$	1,589,029,00	\$	1,719,000.00	\$	1,755,000.00	\$	1,796,000.00
Debt Service			188		SIE.	Lant & Ro	niv	www.com		PIS YES		
Bond Principal Payments	\$	1,189,932.00	\$	1,336,379.00	\$	1,398,016.00	\$	1,442,833.00		1,492,035.00	\$	1,535,702.00
Bond and Note Interest	\$	588,450.00		512,249.00	0.000	473,669.00	11	432,874.00	9500	390,023.00	\$	343,993.00
Total Debt Service	\$	1,778,382.00			\$		\$	1,875,707.00		1,882,058.00	\$	1,879,695.00
Total Appropriations	\$	3,497,965.00	\$	3,703,296.00	\$	3,850,891.00	\$	3,997,707.00	\$	4,053,058.00	\$	4,090,695.00
MISCELLANEOUS ADJUSTMENTS		and organization	00		m			are ducines	œ		150	
Fund Balance Applied	\$		\$	5	\$		\$	•	\$	*	\$	-
Retained Earnings Appropriated	\$	200,000.00	\$	*	\$		\$:25	\$	31	\$	
Sub Total Appropriations	\$	3,697,965.00	\$	3,703,296.00	\$	3,850,891.00	\$	3,997,707.00	9.000	4,053,058.00	\$	4,090,695.00
CONTINGENCY AMOUNT**	\$	184,898.25	\$		\$	577,633.65		907,479.49	2000	851,142.18	1000	613,604.25
TOTAL REVENUE REQUIREMENT	\$	3,882,863.25	\$	3,888,460.80	\$	4,428,524.65	\$	4,905,186.49	\$	4,904,200.18	\$	4,704,299.25

^{*} Includes Grit Removal, Equipment Repairs and Supplies, Fees and Permits, Consulting Fees, Laboratory, Education, Utilities, Property Lease, Trustee Fees,

^{** 2017} Contingency is 15%

[™]In 2011, KMUA budget line items were revised to implement a new accounting system.

Kearny Municipal Utilities Authority Hudson County, New Jersey 2017 User Charge Setting Report TABLE 1A-SUMMARY OF BUDGET DATA 2017

DESCRIPTION		2017 BUDGET
REVENUES	1	
Operating Revenues		
Service Charges	\$	4,088,695.00
Connection Fees		
Parking Fees		
Other Operating Revenues		
Non-Operating Revenues	131	
Op Grants & Entitlements		
Local Subsidies & Donations		
Interest on investments & deposits	\$	2,000.00
Other Non-Op Revenues	\$	<u>=</u>
Total Revenues	\$	4,090,695.00
APPROPRIATIONS	Ш	
Administration		No. of Concession, Name of Street, or other party of the Concession, Name of Street, or other pa
Salaries and Wages	\$	185,000.00
Employees Benefits (Fringe)	\$	80,000.00
Other Legal/Admin Expenses	\$	150,000.00
Total Administration	\$	415,000.00
Total Administration		+10,000.00
Cost of Providing Services (COPS)		K-5.7
Total Non-PVSC COPS*	\$	752,000.00
Passaic Valley SC	\$	1,044,000.00
Total Operations	\$	1,796,000.00
DEBT SERVICE		
Bond Principal Payments	\$	1,535,702.00
Bond and Note Interest	\$	343,993.00
Total Debt Service	\$	1,879,695.00
Adjustments and Fund Balance Adjustment	\$	4 000 005 00
SUBTOTAL APPROPRIATIONS	\$	4,090,695.00
CONTINGENCY AMOUNT TOTAL KMUA REVENUE REQUIREMENT	\$	613,604.25
	_	4,704,299.25
Less PVSC Charges-BOD & SS Surcharges (Table 3)	\$	20,898.88
KMUA REVENUE REQ'D (WITH PVSC NON -SURCHARGES)	\$	4,683,400.37
Less PVSC Charges-Non-Surcharges (Table 3)	\$	1,023,101.12
KMUA REVENUE REQ'D (NO PVSC CHARGES)	\$	3,660,299.25
Plus Total PVSC Charges (Table 3)		1,044,000.00
AMOUNT TO BE RECOVERED BY USER CHARGES	\$	4,704,299.25

^{*}Includes Grit Removal, Equipment repairs & supplies, Fees and Permits, Consulting Fees, Lab, Education, Utilities, Property Lease, Trustee Fees

Kearny Municipal Utilities Authority Hudson County, New Jersey

2017 User Charge Setting Report TABLE 2 - Customer Charges 2017

205 284 284 284	26.01 47		1										
284	47			Martiono Bros. Co.	22	\$	164.12		81.84			\$ 245.96	
	**	1003-0	1	AMONT, J - DYNAMIC DELIVERY SE	0	\$	-	\$	-			\$ -	Acquired by NJDOT
284	48	1035-0	1	SUNSET CAHUENGA	11,703	\$	87,304.38		43,535.16			\$ 130,839.54	
	49	1036-0	1	CSX INTERMODEL INC 63498	2,048	\$	15,278.08		7,618.56			\$ 22,896.64	
284	51	1010-0	1	KEARNY FIDELCO ASSOC.	265	\$	1,976.90		985.80			\$ 2,962.70	
284	4	1050-0	1	WALMART	3,425	\$	25,550.50		12,741.00			\$ 38,291.50	
284	3.01	1061-0	1	WAWA	867	\$	6,467.82		3,225.24			\$ 9,693.06	
284	4.021	1062-0	1	MUY! BRANDS LLC	2,288	\$	17,068.48		8,511.36			\$ 25,579.84	
286	38	1047-0	1	G&S MOTOR EQUIP. CO.	984	\$	7,340.64		3,660.48			\$ 11,001.12	
286	45.01	1044-0	1	ORANGEWOOD MERIT	448	\$	3,342.08		1,666.56			\$ 5,008.64	
286	40	1046-0	1	NATIONAL WATER MAIN CLEANING CO.	852	\$	6,355.92		3,169.44			\$ 9,525.36	
286	45.03	1045-0	1	SAFER DEVELOPMENT	575	\$	4,285.77		2,137.14			\$ 6,422.91	
288	11	1015-0	1	VERIZON	0	\$	-	\$	-			\$ -	No recorded flow from United Water
288	5.01	1006-0	1	JAC JON ASSOCIATES	306	\$	2,282.76		1,138.32			\$ 3,421.08	
288	4	1021-0	1	VECKRIDGE CHEMICAL CO.	189	\$	1,409.94		703.08			\$ 2,113.02	
289	14.01, 17.02	1014-0	1	CLEAN EARTH NJ - S&W WASTE	1,371	\$	10,227.66		5,100.12			\$ 15,327.78	
289	9.01	1005-0	1	LOMMA RIGGING C/O JIM LOMMA	137	\$	1,022.02		509.64			\$ 1,531.66	
289	16	1012-0	1	MAC PRODUCTS	1,221	\$	9,108.66		4,542.12			\$ 13,650.78	
290	4	1027-0	1	61 LINCOLN HWY CORP.	4,685	\$	34,950.10		17,428.20			\$ 52,378.30	
290	1	1004-0	1	B&G INC EIGHTEEN WHEEL	200	\$	1,492.00		744.00			\$ 2,236.00	
290	16	1025-0	1	DYNAMIC DELIVERY CORP.	2,530	\$	18,873.80		9,411.60			\$ 28,285.40	
290	19	1038-0	1	58 J LLC	191	\$	1,424.86		710.52			\$ 2,135.38	
291	2.02	1029-1	1	COURAGE REALTY	0	\$	1 000 44	\$	000.40			\$ 2 205 22	
291	2.02	1029-2	1	KEPHART TRUCKING	259		1,932.14		963.48			\$ 2,895.62	
291 291	2.01 1	1033-0 1022-0	1 1	R HYER/ GARDENER ASPHALT SIXTY SK CORP	2,758 94	\$	20,574.68 701.24		10,259.76 349.68			\$ 30,834.44 1,050.92	
291	2	1022-0	1	JAMES LOMMA	807	\$	6,020.22		3,002.04			\$ 9,022.26	
292	3	1034-0	1	TIL THE END LLC.	3	\$	22.38		11.16			\$ 33.54	
292	1	1020-0	1	PJT TRANSPORT	194	\$	1,447.24		721.68			\$ 2,168.92	
294	3	1039-0	1	ATLANTIC NE TRANSPORT	19	\$	141.74		70.68			\$ 212.42	
284	13.01	1043-0	1	CSX TRANS - 52538	2.438	\$	18,187.48		9,069.36			\$ 27,256.84	
294	13.01	1031-0	1	EDEN WOOD	1,573	\$	11,734.58		5,851.56			\$ 17,586.14	
294	14.01	1049-0	1	TOWN OF KEARNY	105	\$	783.30		390.60			\$ 1,173.90	
294	15	1016-0	1	URBAN RENEWAL CORP.	536	\$	3,998.56	\$	1,993.92			\$ 5,992.48	
295	3	1000-0	1	CROSSPOINT REALTY SVS INC.	17	\$	126.82		63.24			\$ 190.06	
295	4	1002-0	1	85 LINCOLN HWY ASSOC.	159	\$	1,186.14		591.48			\$ 1,777.62	
295	7	1024-0	1	CROWN ENTERPRISES INC	1,760	\$	13,129.60	\$	6,547.20			\$ 19,676.80	
295	11	1030-0	1	NEW PENN	370	\$	2,760.20		1,376.40			\$ 4,136.60	
295	13	1007-0	1	ROADWAY EXPRESS	164	\$	1,223,44		610.08			\$ 1.833.52	
295	41	1037-0	1	YRC WORLDWIDE INC.	8,150	\$	60,799.00		30,318.00			\$ 91,117.00	See Note 2
295	5	1053-0	1	S&R REALTY STANSON	728	\$	5,430.88		2,708.16			\$ 8,139.04	
296	2	1023-0	1	SOUTH KEARNY ASSOCIATES	102	\$	760.92		379.44			\$ 1,140.36	See Note 2
296	6	1001-0	1	TOSCANO'S DELI (RTL SERVICES)	0	\$	-	\$	-			\$ -	
297	1	1032-0	1	BRIDGEVIEW INVESTORS	54	\$	402.84	\$	200.88			\$ 603.72	
298	19.02	1013-0	1	DH REALTY ENTERPRISES	38	\$	283.48		141.36			\$ 424.84	
298	14	1009-0	1	EPSTEIN, BERNARD R ETAL	747	\$	5,572.62		2,778.84			\$ 8,351.46	
298	19.03	1040-0	1	PSE&G	246	\$	1,835.16		915.12			\$ 2,750.28	
289	10	1055-0	1	RIVER TERMINAL JAP	695	\$	5,184.70		2,585.40			\$ 7,770.10	
288	10	1055-1	2	RIVER TERMINAL CAP	4,642	\$	34,629.32		17,268.24			\$ 51,897.56	
294	12	1055-2	2	Hugo Neu (Formerly RTL Services Inc.)	2,211	\$	16,495.93	\$	8,225.85			\$ 24,721.78	
289	5	1011-0	2	LEEDS TERMINAL	755	\$	5,632.30	\$	2,808.60			\$ 8,440.90	See Note 3
298	10	1056-0	2	KUEHNE CHEMICAL CO.	12,513	\$	93,346.98	\$	46,548.36			\$ 139,895.34	
175	1	1058-0	3	NJ SPORTS AND EXPOSITION AUTHORITY (NJ MEADOWLA	185,120	\$	1,380,995.20					\$ 1,380,995.20	See Note 1
284	21.01	1052-0	3	NJ TRANSIT MEADOWS MAINT CMPLX	18,372	\$	137,053.38	\$	68,342.97	\$ 7	,582.02	\$ 212,978.37	
284	33	1059-0	3	U S POSTAL SERVICE	6,882	\$	51,339.72	\$	25,601.04			\$ 76,940.76	
289	11	1057-0	3	SPECTRASERV INC.	39,060	\$	291,389.27	\$	145,304.03	\$	-	\$ 436,693.30	
290	3	1051-0	3	OJ TRUCK WASH	17,254	\$	128,716.29	\$	64,185.60	\$ 13	,316.86	\$ 206,218.75	
294	19	1054-0	3	TALBOT HALL (CCC) (Class 3)	21,275	\$	158,713.86	\$	79,144.17	\$	-	\$ 237,858.03	
294	15	1049-0	3	HUDSON COUNTY CORRECTIONAL	96,268	\$	718,156.51	\$	358,115.58	\$	-	\$ 1,076,272.09	
205	18	1058-1	3	NJ SPORTS AND EXPOSITION AUTHORITY (NJ MEADOWLA	30,443	\$	227,104.78	1				\$ 227,104.78	See Note 1
						1							
59	Accounts			TOTAL	491,118	\$	3,663,739.38	\$ 1	1,025,064.15	\$ 20	,898.88	\$ 4,709,702.41	

	2017 BASE KMUA REVENUE EQUIREMENT	R	2017 PVSC REVENUE EQUIREMENT	
REVENUE REQUIREMENT	\$ 3,660,299.25	\$	1,023,101.12	\$ 4,683,400.37
ATTRIBUTABLE FLOW (HCF)	491,118		275,555	
COST PER HCF	\$ 7.4530	\$	3.7129	
WHOLE RATE	\$ 7.46	\$	3.72	

2017 Rate 9	Summa	ıry		
CLASS		2017	2017	2017
DESCRIPTION	Bas	e Charge	PVSC Charge	Total
User Class 1	\$	7.46	\$ 3.72	\$ 11.18
User Class 2	\$	7.46	\$ 3.72	\$ 11.18
User Class 3	\$	7.46	\$ 3.72	\$ 11.18

NJSEA (formerly NJMC) not assessed PVSC fees based upon April 2004 Agreement between EnCAP and PVSC Utilized averaged water consumption data from 2009 to 2012. Estimated water consumption data from United Water were not constitent with customers historical use.

KMUA did not recieve private water meter reading from customer. Used Suez Water consumption data.

Note 1 Note 2

2017 User Charge Setting Report TABLE 3-SUMMARY OF KMUA SURCHARGE CALCULATION 2017 Kearny Municipal Utilities Authority Hudson County, New Jersey

	NOL	TH lbs	*BOD	EXCESS	BOD	TH lbs	SS	EXCESS	SS	TOTAL	_
DESCRIPTION	VOLUME	BOD	CONC	BOD	EXCESS	SS	CONC	SS	EXCESS	BOD/SS	_
	(MG)	(# HL)	(mg/L)	(# HL)	CHARGE	(# HL)	(mg/L)	(# HL)	CHARGE	SURCHARGE	_
TOWN OF KEARNY TOTAL	2,853.85	3,669.21	154.16	N/A	N/A	3,305.71	138.89	N/A	A/N	A/N	
											_
MONITORED INDUSTRIES KMUA		200		100			74			200	
HUDSON CO CORR FAC (HUDSON COUNTY JAIL)	72.01	85.29	142.01	0.00	69	81.66	135.97	00.00	69	€9	_
NJ TRANSIT MEADOWS MAINTENANCE COMPLEX	13.74	33,42	291,60	15,75	\$ 6,842,02	17.56	153,21	1.64	\$ 740.00	\$ 7,582.02	
OJ FOOD GRADE TANK TRUCK WASH, INC.	12.91	42.07	390.80	25.47	\$ 11,063.78	19.95	185.30	5.00	\$ 2,253.08	\$ 13,316.86	
SPECTRASERV, INC.	29.22	25.87	106.18	00'0	69	32,40	132,95	00.0	69	€	_
TALBOT HALL (COMMUNITY EDUCATION CORPORATION)	15.92	18.85	142.01	00.0	9	18.05	135.97	00.0	-,	€	
KEUHNE CHEMICAL	8.85	7.10	96.18	0.00	9	1,10	14.95	00.00	€9	€9	
TOTAL SURCHARGES	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	N 18 18			\$ 17,905.80				\$ 2,993.08	\$ 20,898.88	-
						TOTAL 2016	TOWN OF	KEARNY CH	TOTAL 2016 TOWN OF KEARNY CHARGE TO KMUA \$	1,044,000.00	_
					REMAINDER F	EES TO BE RE	COVERED	THROUGH	-LOW CHARGE	REMAINDER FEES TO BE RECOVERED THROUGH FLOW CHARGES \$ 1,023,101.12	

2017 PVSC USER CHARGE PER MG 2017 PVSC USER CHARGE FOR BOD/ 1000# 2017 PVSC USER CHARGE FOR SS/ 1000#

* BOD CONC DETERMINED BY:

* SS CONC DETERMINED BY:

\$ 484.7384 \$ 434.3448

\$ 450,9424

Thousand #'s BOD X 1000 # Q X 8.34

BOD (mg/L)

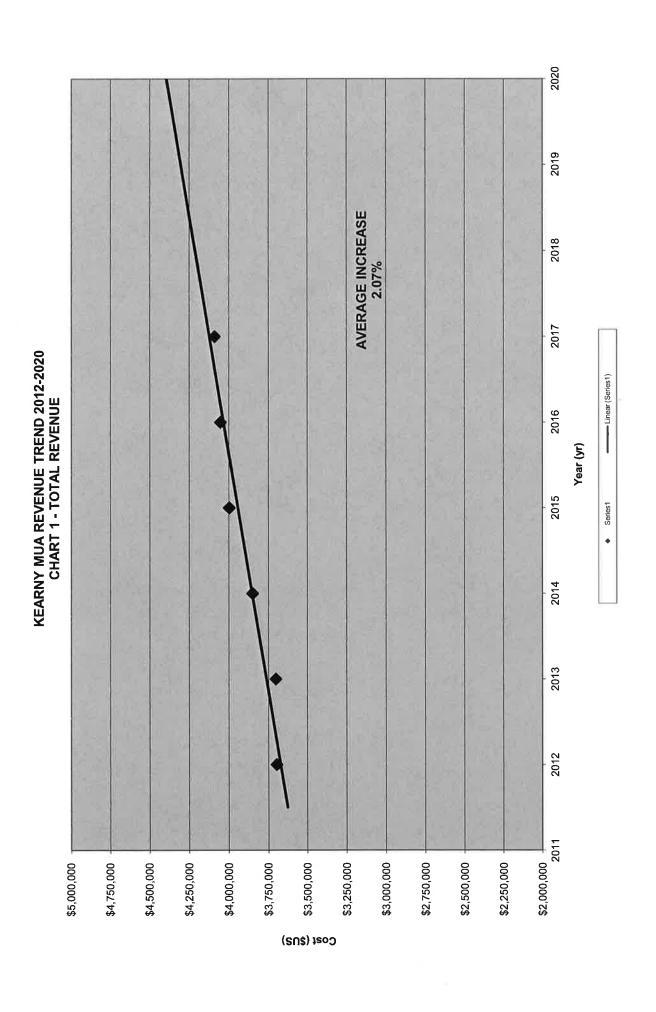
11

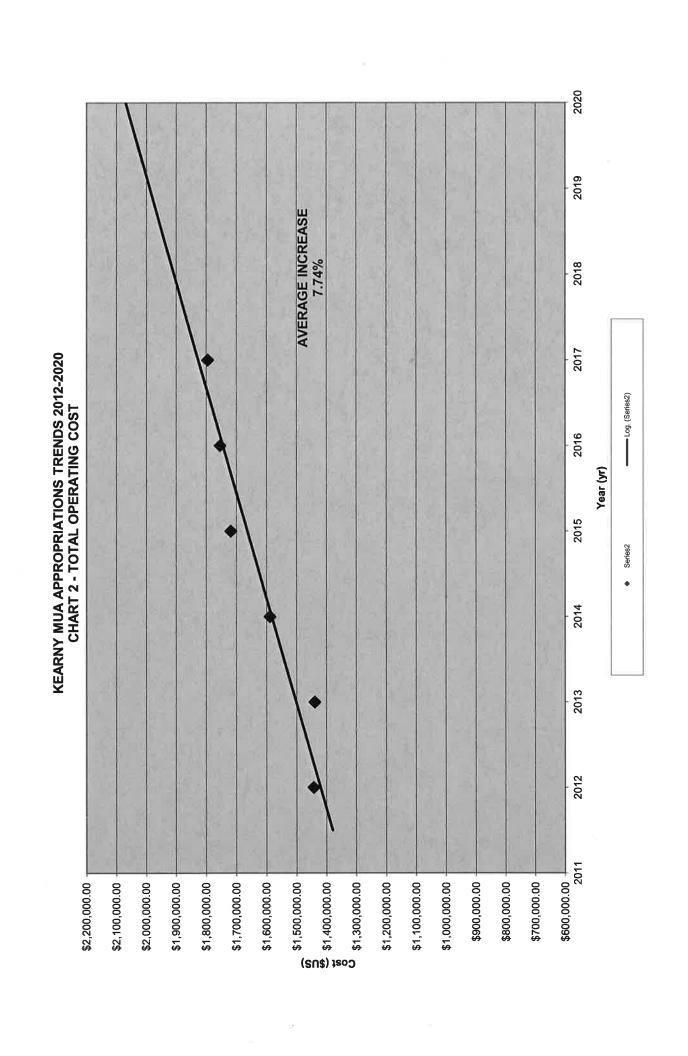
SS (mg/L)

П Thousand #'s SS X 1000 # Q X 8.34

Note 1 NJMC not assessed PVSC fees based upon April 2004 Agreement between EnCAP and PVSC Note 2 The Town of Kearny charges KMUA a fix amount of \$860,000.

Note 3 Surcharge rate is based on the PVSC invoice





2020 2019 2018 AVERAGE INCREASE 0.91% 2017 ----- Linear (Series4) 2016 Year (yr) 2015 Series4 • 2014 2013 2012 2011 \$1,000,000 \$1,200,000 \$1,600,000 \$1,400,000 \$2,400,000 \$2,200,000 \$2,000,000 \$1,800,000 Cost (\$US)

KEARNY MUA APPROPRIATIONS TRENDS 2012-2020 CHART 3 - TOTAL DEBT SERVICE

2020 2019 AVERAGE INCREASE 2.38% 2018 2017 KEARNY MUA APPROPRIATIONS TRENDS 2012-2020 CHART 4 - TOTAL APPROPRIATION COST --- Linear (Total Appropriations) 2016 Total Appropriations 2015 2014 2013 2012 \$2,000,000.00 \$2,250,000.00 \$3,750,000.00 \$3,500,000.00 \$2,750,000.00 \$5,000,000.00 \$4,750,000.00 \$4,500,000.00 \$4,250,000.00 \$4,000,000.00 \$3,250,000.00 \$3,000,000.00 \$2,500,000.00 Cost (\$US)

2020 2019 --- Linear (TOTAL REVENUE REQUIREMENT) AVERAGE INCREASE 2018 KEARNY MUA APPROPRIATIONS TRENDS 2012-2020 CHART 5-TOTAL REVENUE REQUIREMENT 2017 ----- Linear (TOTAL REVENUE REQUIREMENT) 2016 Year (yr) 2015 TOTAL REVENUE REQUIREMENT 2014 2013 • 2012 2011 \$1,000,000 \$6,000,000 \$5,500,000 \$5,000,000 \$4,500,000 \$4,000,000 \$3,500,000 \$3,000,000 \$2,000,000 \$1,500,000 \$2,500,000 Cost (\$US)