

**THE JOINT MEETING OF  
ESSEX AND UNION COUNTIES  
2017 BUDGET**

**AS PRESENTED  
BY  
THE JOINT MEETING  
FINANCE & BUDGET COMMITTEE**

**BOARD CHAIRPERSON  
HON. HOWARD LEVISON**

**FINANCE & BUDGET COMMITTEE CHAIRPERSON  
HON. JOSEPH M. FLORIO**

**COMMITTEE MEMBERS  
HON. QUILLA E. TALMADGE  
HON. RICHARD SUN  
HON. CARL HOKANSON**

**Adopted:  
NOVEMBER 10, 2016**



ITEM #1- VEHICLES

2017 BUDGET		<b>\$91,000</b>				
2016 BUDGET		\$97,000				
2016 ANNUAL ESTIMATE		\$75,000				
This item encompasses vehicles purchased, gasoline, oils and supplies/repairs performed by the auto mechanic.						
It is anticipated that replacement vehicles will be necessary as follows:						
Replacement vehicles:						
2 replacement Plant Carts			\$8,000			
Replace 2 Mech Dept vans			\$12,000			
Replace 1 van Elect Dept			\$6,000			
			<b>\$26,000</b>			
The estimated cost for typical gasoline, oils and repairs is :						
					\$65,000	
	Vehicles	gas & oils	Rep/etc.			
Sewers	\$0	\$13,000	\$3,250	\$16,250		
Treatmt Plt	\$23,333	\$26,000	\$13,000	\$62,333		
DWF	\$2,667	\$6,500	\$3,250	\$12,417		
<b>BUDGET</b>	<b>\$26,000</b>	<b>\$45,500</b>	<b>\$19,500</b>	<b>\$91,000</b>		

ITEM #2- EQUIPMENT RENTAL

<b>2017 BUDGET</b>		<b>\$300,000</b>				
2016 BUDGET		\$300,000	Historical	expenses		
2016 ANNUAL ESTIMATE		\$350,000	2001	\$259,898		
			2002	\$235,293		
			2003	\$232,326		
			2004	\$372,107		
			2005	\$216,818		
			2006	\$150,703		
			2007	\$457,418		
			2008	\$156,253		
			2009	\$330,451		
			2010	\$25,512		
			2011	\$520,395		
			2012	\$158,044		
			2013	\$307,357		
			2014	\$119,776		
			2015	\$186,675		
<p>Work completed by utilizing Equipment rental has been:</p> <ol style="list-style-type: none"> <li>1) Off loading of equipment delivered to site (cranes &amp; forklifts)</li> <li>2) Cleaning of scum pits, scum and grit lines, centrate system at DWF</li> <li>3) Storm sewer manhole maintenance</li> <li>4) Trunk sewer maintenance</li> <li>5) rental of 30 cubic yard containers</li> </ol> <p>Equipment rental expenses are variable depending upon the needs due to equipment deliveries and the rate of "struvite" buildup in the centrate lines. For 2016 equipment rental was competitively bid.</p> <p>In addition, for 2017 bids were received for emergency excavation services. The excavation services were used in 2016 for sewer excavations related to repairs, bypass pumping during sewer repairs and for on site excavations. The contract is awarded to the bidder(s) who offered services for the lowest cumulative rates.</p>						
bid	\$90,000	**				
additional	\$50,000					
excavating services	\$100,000	**				
Off loading & cranes	\$20,000					
30 yd containers	\$15,000					
Debris removal Millburn Crossing	\$25,000					
<b>TOTAL</b>	<b>\$300,000</b>		Sewers	TP	DWF	
<b>BUDGET</b>	<b>\$300,000</b>		\$180,000	\$90,000	\$30,000	

ITEM # 3-INSURANCE

<b>2017 BUDGET</b>		<b>\$ 835,374</b>			
2016 BUDGET		<b>\$ 755,320</b>			
2016 ANNUAL ESTIMATE		\$755,000			
<b>COST DISTRIBUTION 2016 - 2017</b>					
	Sewers	Plant	Dewat	Drying	Total
Boiler					-
Property		91,957	18,391	12,261	122,609
Gen Liability	827	41,336	8,267	4,685	55,114
Auto	144	7,183	1,437	814	9,577
LTD					
Inland Marine	-		-		-
Equip					22,334
Flood	-	24,948	5,852	-	30,800
Wk comp	5,600	279,998	56,000	31,733	373,331
Pollution	-	12,688	12,688		25,376
Umbrella	793	39,629	7,926	4,491	52,839
Public Officials	253	12,640	2,528	1,433	16,853
Crime	174	1,042	260	260	1,736
Terrorism	605	3,631	908	908	6,052
Fees & Surcharges	97	4,865	973	551	6,486
<b>Total</b>	<b>8,492</b>	<b>519,916</b>	<b>115,230</b>	<b>57,136</b>	<b>\$ 723,107</b>
	<b>2017 estimate</b>				<b>Total Est. 2017</b>
Months	<b>4</b>		<b>8</b>		
Boiler		INCL		-	
Property*	40,870		94,000	134,870	\$ 144,985
Gen Liability*	18,371		42,254	60,625	65,172
Auto*	3,192.33		7,342	10,535	11,325
LTD		INCL		-	-
Inland Marine*	-		-	-	-
Equip	7,445		17,123	24,567	26,410
Flood*	10,267		23,613	33,880	36,421
Wk Comp	124,444		286,220	410,664	422,984
Pollution*	8,459		19,455	27,914	30,007
Umbrella*	17,613		40,510	58,123	62,482
Public Officials*	5,618		12,921	18,538	19,094
Crime*	579		1,331	1,910	1,967
Terrorism	2,017		4,640	6,657	6,857
Fees & Surcharges	2,162		4,973	7,135	7,670
					835,374
	Sewers	Plant	Dewat	Drying	Total
	3.00%	75.00%	15.0%	7.00%	100.00%
	25,061.23	\$ 626,530.81	125,306.16	58,476.21	835,374
<b>TOTAL</b>	<b>241,036</b>		<b>554,382</b>	<b>\$ 795,418</b>	<b>\$ 835,374</b>

ITEM #4- WATER SERVICE

<b>2017 BUDGET</b>		<b>\$138,500</b>							
2016 BUDGET		\$138,500							
2016 ANNUAL ESTIMATE		\$96,693							
HISTORICAL SUMMARY	COST	CU FT CONSUMED	\$RATE/ CU FT	TP USAGE	DWF USAGE	SDF*	Effective Rate Change		
1997	\$105,346	5,955,413	\$0.0177	64.73%	35.27%				
1998	\$129,335	<b>7,096,534</b>	\$0.0182	64.84%	35.16%		3.03%		
1999	\$168,631	<b>7,764,332</b>	\$0.0217	66.03%	33.97%		19.17%		
2000	\$173,323	<b>7,519,362</b>	\$0.0231	67.19%	32.81%		6.13%		
2001	\$187,266	<b>8,516,441</b>	\$0.0220	75.45%	24.55%		(4.61%)		
2002	\$193,902	<b>7,449,304</b>	\$0.0260	71.49%	27.78%	0.73%	18.38%		
2003	\$193,961	<b>7,094,573</b>	\$0.0273	72.08%	27.92%		5.03%		
2004	\$182,883	<b>6,901,143</b>	\$0.0265	73.04%	26.96%		(3.07%)		
2005	\$197,270	<b>7,667,609</b>	\$0.0257	74.90%	25.10%		(2.92%)		
2006	\$204,683	<b>7,173,277</b>	\$0.0285	73.70%	26.30%		10.91%		
2007	\$216,304	<b>6,902,363</b>	\$0.0313	75.98%	24.02%		9.83%		
2008	\$205,861	<b>6,114,583</b>	\$0.0337	73.08%	26.92%		7.43%		
2009	\$233,081	<b>6,170,587</b>	\$0.0378	69.06%	30.94%		12.19%		
2010	\$263,638	<b>6,510,611</b>	\$0.0405	74.33%	25.67%		7.20%		
2011	\$245,614	<b>6,129,945</b>	\$0.0401	74.87%	25.13%		(1.05%)		
2012	\$203,011	<b>4,731,658</b>	\$0.0429	70.59%	29.41%		7.08%		
2013	\$112,330	<b>2,486,642</b>	\$0.0452	68.42%	31.58%		4.41%	Avg last 3 years	
2014	\$89,325	<b>2,154,294</b>	\$0.0415	72.94%	27.06%		3.48%	Avg last 3 years	
2015	\$111,140	<b>1,957,238</b>	\$0.0568	57.64%	42.36%		4.99%	Avg last 3 years	
<b>2017 BUDGET</b>	TRT PLT	DWF	DRYER	TOTAL CU FT	RATE				
	1,600,000	600,000	0	2,200,000	\$0.0596				
	<b>\$95,389</b>	<b>\$35,771</b>	<b>\$0</b>	<b>\$131,159</b>					
		Water Facility Charge		SAY					
TP	\$95,389		\$95,389	\$95,000					
DWF	\$35,771		\$35,771	\$40,000					
SDF	\$0	\$3,500	\$3,500	\$3,500					
				\$138,500					
<b>BUDGET</b>	<b>\$138,500</b>								

ITEM #5- ELECTRIC SERVICE

2017 BUDGET		\$1,160,120								
2016 BUDGET		\$1,065,500								
2016 ANNUAL ESTIMATE		\$853,000								
HISTORY				AVG. SUPPLY PER MONTH			DEMAND PER MONTH			
YEAR	Utility AVG USAGE/MO	AVG EXPENSE/MO incl Trans	AVG COST/KWH	TOTAL DEMAND	UTILITY Co	Cogen	TRTMNT PLT	DWF	SDF	
1986	963,200	\$65,536	0.068	1,471,666	963,200	496,053	engine #3 on line 7/1986			
1987	836,000	\$52,566	0.063	1,627,593	836,000	793,832				
1988	1,052,800	\$66,225	0.063	1,828,824	1,052,800	776,870				
1989	981,600	\$64,100	0.065	1,812,867	981,600	830,766				
1990	1,025,600	\$68,602	0.067	1,900,207	1,025,600	877,333				
1991	1,185,600	\$81,779	0.069	2,015,572	1,185,600	820,000				
1992	1,249,600	\$85,061	0.068	2,113,636	1,249,600	851,947	1,907,982	205,654		
1993	1,332,000	\$95,149	0.071	2,234,215	1,332,000	899,787	2,050,339	183,876		
1994	1,363,200	\$98,402	0.072	2,224,419	1,363,200	858,880	2,025,589	198,830		*
1995	1,228,800	\$95,449	0.078	2,135,677	1,228,800	906,933	1,953,481	182,196		**
1996	1,268,500	\$100,537	0.079	2,200,455	1,268,500	931,973	1,949,908	170,610	79,937	
1997	1,321,400	\$100,176	0.076	2,157,561	1,321,400	836,208	1,915,579	174,895	67,086	***
1998	1,527,084	\$118,269	0.077	2,153,284	1,527,084	626,200	1,945,309	193,569	14,406	
1999	1,460,299	\$112,948	0.077	2,131,241	1,460,299	670,942	1,932,958	182,376	15,907	****
2000	1,563,500	\$116,784	0.075	2,220,255	1,563,500	656,755	1,970,012	214,695	35,548	*****
2001	1,626,104	\$113,958	0.070	2,272,450	1,626,104	646,347	1,957,860	209,287	105,303	
2002	1,777,485	\$111,892	0.063	2,411,038	1,777,485	633,553	2,041,833	225,513	143,692	
2003	1,787,033	\$117,992	0.066	2,406,951	1,787,033	619,752	2,199,044	129,382	78,525	
2004	1,799,507	\$139,019	0.077	2,448,734	1,799,507	649,227	2,172,586	237,788	38,360	*****
2005	1,620,537	\$134,083	0.083	2,231,994	1,620,537	611,457	1,980,412	224,250	27,332	
2006	1,643,477	\$141,620	0.086	2,189,237	1,643,477	545,760	1,947,616	226,518	15,103	
2007	1,518,967	\$161,248	0.106	2,149,407	1,518,967	629,800	1,903,856	217,268	28,283	
2008	1,535,620	\$174,426	0.114	2,194,342	1,535,620	670,347	1,928,041	241,613	24,688	
2009	1,394,245	\$154,097	0.111	2,137,539	1,394,245	743,294	1,883,676	240,711	13,153	<<<
2010	770,366	\$90,843	0.118	2,160,227	770,366	1,389,860	1,945,189	213,318	1,720	
2011	717,614	\$79,215	0.110	2,118,215	717,614	1,400,601	1,889,251	214,913	14,051	
2012	616,000	\$62,390	0.101	2,056,597	616,000	1,440,597	1,819,340	219,600	17,657	
2013	496,400	\$51,237	0.103	2,005,464	496,400	1,509,064	1,782,213	208,072	15,179	*1
2014	546,109	\$70,016	0.128	2,016,608	546,109	1,470,499	1,823,314	177,233	16,061	
2015	454,981	\$65,080	0.143	2,010,090	454,981	1,555,109	1,784,268	215,354	10,468	*2
est 2016	868,327	\$70,597	0.081	2,338,356	868,327	1,470,029	2,107,011	224,643	6,703	*2
estimated savings from Cogen for 2016 MONTHLY				\$222,440	*	DIGESTER #2 OUT OF SERVICE		***** DIGESTER #3 OUT OF SERVICE		
ANNUALLY				\$2,669,282.80	**	DIGESTER #2 RETURNED 5/95		<<< New Cogen Sept 15, 2009		
					***	DIGESTER #1 OUT OF SERVICE 10/97				
					****	DIGESTER #1 RETURNED 1/5/99				
					*****	DIGESTER #4 CONVERSION				
					*1	DIGESTER #2 OUT OF SERVICE				
					*2	DIGESTER #1 OUT OF SERVICE				

ITEM #5- ELECTRIC SERVICE

Expected electrical kw demand for 2017									
Year	Trt Plt KW Avg/mon	DWF KW Avg/mon	Dryer KW Avg/mon						
1997	1,915,579	174,895	67,086						
1998	1,945,309	193,569	14,406						
1999	1,932,958	182,376	15,907						
2000	1,970,012	214,695	35,548						
2001	1,957,860	209,287	105,303						
2002	2,041,833	225,513	143,692						
2003	2,199,044	129,382	78,525						
2004	2,172,586	237,788	38,360						
2005	1,980,412	224,250	27,332						
2006	1,947,616	226,518	15,103						
2007	1,903,856	217,268	28,283						
2008	1,928,041	241,613	24,688						
2009	1,883,676	240,711	13,153						
2010	1,945,189	213,318	1,720						
2011	1,889,251	214,913	14,051						
2012	1,819,340	219,600	17,657						
2013	1,782,213	208,072	15,179						
2014	1,823,314	177,233	16,061						
2015	1,784,268	215,354	10,468						
est 2016	2,107,011	224,643	6,703						
Avg 14, 15, 16	1,904,864	200,220	13,903						
Avg 14, 15	1,803,791	192,652	15,620						
Avg 15, 16	1,945,639	192,652	13,265						
Expected 2016	1,884,765	195,175	15,179						
say	1,820,000	200,000	15,000						
<b>Total Demand per Month&gt;</b>					2,035,000				
FY 2017	<b>24,420,000</b>	KWH							
<b>Generator production</b>		<b>Monthly Avg</b>							
1999	670,942	2005	611,457	2011	1,400,601				
2000	656,755	2006	545,760	2012	1,440,597				
2001	646,347	2007	629,800	2013	1,509,114				
2002	633,553	2008	670,347	2014	1,432,084				
2003	619,752	2009	743,294	2015	1,575,000				
2004	649,227	2010	1,389,860	2016	1,470,029				
		<b>for 2017</b>	1,575,000						
PSE&G= total demand - (Cogen production-production loss)									
	24,420,000	18,900,000	2,900,000	>>>>>>>>>	8,420,000				
<b>8,420,000</b>	say:	<b>8,420,000</b>	@	0.106	\$/KwH				
cost		\$892,520							
add area lighting & partial lab:		\$15,000							
Add PSE&G Dist Chgs:		\$252,600		88.9%	10.4%	0.8%	100.0%		
Sales Taxes									
EST	<b>\$1,160,120</b>		Sewers	TP	DWF	SDF			
			\$0	\$1,030,974	\$120,365	\$8,781	\$1,160,120		
<b>BUDGET</b>	<b>\$1,160,120</b>								



ITEM #6-GAS SERVICE

<b>2017 BUDGET</b>		<b>\$496,200</b>	This item includes gas utilized at:					
2016 BUDGET		\$435,200	1) Treatment plant laboratory					
2016 ANNUAL ESTIMATE		\$433,029	2) Gas heating in select areas					
			3) Supplemental fuel for Cogen					
			4) Fuel for boiler & hot water in DWF					
			5) Boiler #1 in P&O Bldg.					
<b>HISTORY</b>								
YEAR	\$	Avg.RATE/CU FT	TPLT	COGEN	DWF	SDF	TOTAL CU FT	
2000	\$135,568	0.0068	1,351,100	2,021,700	8,589,800	7,847,000	19,809,600	
2001	\$262,055	0.0085	153,800	149,282	1,326,700	29,309,000	30,938,782	
2002	\$381,409	0.0051	8,800	5,500	3,022,800	71,960,000	74,997,100	
2003	\$201,102	0.0095	4,000	5,200	10,665,900	10,472,000	21,147,100	
2004	\$22,188	0.0245	3,000	0	901,200	0	904,200	
2005	\$22,382	0.0236	1,200	0	948,400	0	949,600	
2006	\$87,811	0.0129	1,000	5,596,700	76,700	1,127,300	6,801,700	
2007	\$97,769	0.0060	1,000	8,686,400	7,698,900	0	16,386,300	
2008	\$300,388	0.0157	335,500	8,160,000	10,620,800	0	19,116,300	
2009	\$236,916	0.0093	0	23,578,000	1,955,700	0	25,533,700	
2010	\$401,855	0.0092	0	36,740,000	7,067,000	0	43,807,000	
2011	\$448,757	0.0098	0	32,339,000	13,428,600	0	45,767,600	
2012	\$402,109	0.0076	0	41,726,000	11,119,500	0	52,845,500	
2013	\$753,165	0.0080	0	79,300,000	14,631,000	0	93,931,000	
2014	\$557,755	0.0074	0	62,550,000	12,416,000	3300	74,969,300	
2015	\$576,920	0.0078	1000	62,550,000	10,968,000	0	73,519,000	
est 2016	\$433,029	0.0059	0	62,872,000	10,695,750	0	73,567,750	
As shown above, gas usage is variable and, like fuel oil, is temperature dependent. The usage of fuel oil vs. natural gas is economically driven based on rates and the availability of methane gas for power generation and heating.								
Year	BTUs required	Fuel oil BTUs	Natural gas BTUs	Drier Nat Gas BTU	Cost per 1000 BTU			
2000	53,908,194,600	32,328,174,600	12,560,730,000	9,019,290,000	\$0.007596			
2001	57,378,399,900	24,892,678,800	1,711,271,100	30,774,450,000	\$0.007001			
2002	106,454,056,200	27,707,101,200	3,188,955,000	75,558,000,000	\$0.004920			
2003	49,537,996,800	27,333,541,800	11,208,855,000	10,995,600,000	\$0.007775			
2004	30,892,464,000	29,943,054,000	949,410,000	0	\$0.009020			
2005	27,004,038,000	26,006,958,000	997,080,000	0	\$0.009076			
2006	26,027,224,800	18,885,439,800	5,958,120,000	1,183,665,000	\$0.012116			
2007	27,285,841,000	19,199,844,000	8,085,997,000	0	\$0.016309			
2008	39,973,573,800	19,901,458,800	20,072,115,000	0	\$0.015594			
2009	55,648,908,600	28,837,591,200	26,811,317,400	0	\$0.010208			
2010	72,827,385,600	26,829,300,600	45,998,085,000	0	\$0.011200			
2011	57,130,757,400	9,074,777,400	48,055,980,000	0	\$0.013175			
2012	58,313,857,800	2,826,082,800	55,487,775,000	0	\$0.010692			
2013	69,907,425,800	1,328,005,800	68,579,420,000	0	\$0.009584			
2014	93,485,467,200	14,771,167,200	78,714,300,000	0	\$0.005980			
2015	86,718,123,900	8,421,723,900	78,296,400,000	0	\$0.004151			
est 2016	83,377,659,300	6,131,521,800	77,246,137,500	0	\$0.005853			
	NG cu ft	RATE	EXTENSION	Service Chg		SAY		
P&O/Treatment Plt./Lab	0		\$0	\$132	\$132	\$200		
Cogen	65,000,000	\$0.0059	\$380,250	\$26,540	\$406,790	\$406,000		
DWF	13,000,000	\$0.0059	\$76,050	\$16,540	\$92,590	\$90,000		
Dryer	0		\$0	\$0	\$0	\$0		
Total	78,000,000		\$456,300	\$43,212	\$499,512	\$496,200		
<b>BUDGET</b>	<b>\$496,200</b>							

ITEM #7- FUEL OIL AND KEROSENE

2017 BUDGET	\$226,500					
2016 BUDGET	\$391,500					
2016 ANNUAL ESTIMATE	\$49,080					
				gallons	expended	\$/gal
		1996	318,322	\$249,928	\$0.79	
		1997	292,776	\$221,731	\$0.76	
		1998	228,866	\$112,438	\$0.49	
		1999	220,967	\$131,773	\$0.60	
		2000	227,343	\$273,917	\$1.20	
		2001	175,054	\$139,657	\$0.80	
		2002	194,846	\$142,307	\$0.73	
		2003	192,219	\$184,043	\$0.96	
		2004	210,570	\$256,462	\$1.22	
		2005	182,890	\$284,898	\$1.56	
		2006	132,809	\$227,525	\$1.71	
		2007	135,020	\$253,873	\$1.88	
		2008	139,954	\$403,500	\$2.88	
		2009	202,796	\$331,166	\$1.63	
		2010	188,673	\$302,475	\$1.60	
		2011	138,675	\$303,926	\$2.19	
		2012	19,874	\$81,584	\$4.11	
		2013	9,339	\$36,361	\$3.89	
		2014	103,876	\$344,058	\$3.31	
		2015	39,632	\$77,942	\$1.97	
		est 2016	33,119	\$49,080	\$1.48	

Fuel oil is used at the treatment plant boilerhouse for heating the digesters and plant buildings and at the DWF boilers as a "back-up source" of fuel for the boilers which are fired using natural gas as the primary fuel source.

The decision to use fuel oil or natural gas any at time is driven by evaluating and comparing costs for fuel oil versus natural gas. In past heating seasons, gas was the more economical at times.

Transportation : Pending per gallon per 1 year contract FY 2017

Price is allowed to fluctuate during the term of the Contract dependent upon posted price of New York Harbor Tank Car Reseller. Transportation rate remains constant during the life of the contract.

Estimated need for 2017		@	\$2.50	PER GAL		
				Fuel oil	Kerosene	BUDGET
Treatment Plant	75,000		\$187,500	\$187,500	\$1,000	\$188,500
DWF	15,000		\$37,500	\$37,500	\$500	\$38,000
SDF	0		\$0	\$0	\$0	\$0
	90,000	gallons	\$225,000			\$226,500
		kerosene	\$1,500			
		TOTAL	\$226,500			
		<b>BUDGET</b>	\$226,500			

ITEM #8 - SEWER MAINTENANCE

2017 BUDGET	\$60,000					
2016 BUDGET	\$60,000					
2016 ANNUAL ESTIMATE	\$55,000					
<p>This item encompasses repairs to frames and covers, access plates, other repairs revealed during the annual sewer inspections, NJ "One Call" System and minor cleaning projects.</p> <p>Major repairs are charged against the Sewer Replacement Fund which is subsequently re-imbursed by respective members based upon the existing municipal ownership contracts of the Joint Meeting. In 1993 and 1994 TV inspections were performed to examine the status of the interior of the original 1902 trunk sewer in Sections I, II, IV and V. As a result of JM Staff review of the inspection, 28 segments or reaches were identified as needing repair. The repairs require either lining or excavation. Repairs have been made on 13 segments. Subsequent contracts will address the remaining segments.</p>						
			SEWERS			
Sewer Cleaning/TV inspections	\$25,000					
NJ One Call System	\$5,000					
Covers, frames, minor repairs	\$30,000					
	<b>BUDGET</b>		<b>\$60,000</b>			

ITEM #9- METER REPAIRS

<b>2017 BUDGET</b>	<b>\$317,000</b>						
2016 BUDGET	\$317,000						
2016 ANNUAL ESTIMATE	\$317,000						
<p>This item involves the costs associated with the ADS sewer metering system. The costs involved for 2015 have included:</p> <p>Replacement and Maintenance services of the metering system including inspection, calibration and repairs as well as the relocation of meters to observe flow patterns in the trunk sewer.</p> <p>For 2017 the budget includes maintenance agreements to maintain the 32 flow meter sites and repairs outside the scope of the maintenance agreement.</p>							
		SEWERS					
<b>METERS</b>	<b>\$317,000</b>						



ITEM #11- CHEMICALS

<b>2017 BUDGET</b>		<b>\$2,673,263</b>	This item is comprised of:					
2016 BUDGET		\$2,828,263		1) Chlorine (Trt Plt)		7) Potassium Permanganate (Trt Plt & DWF)		
2016 ANNUAL ESTIMATE		\$2,700,000		2) Polymer (Trt Plt & DWF)		8) Insect Repellant (Trt Plt & DWF)		
				3) Struvite Treatment		9) Deodorizer (DWF)		
				4) Lime (DWF)		10) Pest Control (Trt Plt & DWF)		
				5) Sodium Bisulfite		11) Boiler Water Treatment (SDF)		
				6) Herbicide (Trt Plt)		12) Carbon Dioxide Inerting System (SDF)		
<b>BUDGET</b>						13) Digester Additive		
<b>Sodium Hypochlorite</b>	(Treatment Plant) chlorination of wastewater effluent prior to discharge							
	Contract for 2017 use \$0.54/gal							
		Gal						
Gals Hypo	2005	689,423	\$503,279	0.73				
	2006	739,033	\$539,494	0.73				
	2007	797,488	\$693,815	0.87				
	2008	978,000	\$850,860	0.87				
	2009	810,000	\$838,350	1.035				
	2010	796,500	\$549,107	0.6894				
	2011	950,000	\$641,250	0.675				
	2012	1,076,811	\$624,973	0.755				
	2013	1,671,771	\$927,992	0.715				
	2014	1,727,000	\$1,117,208	\$0.65				
	2015	1,277,563	\$855,967	\$0.67				
	2016	1,500,000	\$1,005,000	\$0.67				
<b>BUDGET 2017:</b>		1,500,000	\$850,000	\$0.54				
<b>Polymer</b>	<p>Used at                      A) Treatment Plant in liquid form at Thickener gravity Belts                      B) DWF in dry form and dissolved on site as part of the dewatering process in the centrifuges</p> <p>Contract to supply liquid polymer for year 2017(EST) use \$0.11/lb.                      For 2017: 125,000 #/mo X 12 mo X \$0.11/# = \$165,000</p> <p style="text-align: right;"><b>SAY \$170,000</b></p> <p>Contract for Dry polymer for 2017: EST use @ \$ 1.52/#                      For 2017 : 30,000#/mo X 12 mo X \$ 1.52/# = \$547,200</p> <p style="text-align: right;"><b>SAY \$550,000</b></p>							
<b>POLYMER</b>								
Trt. Plt		\$170,000						
DWF		\$550,000						
<b>BUDGET 2017</b>		<b>\$720,000</b>		2016 Budget	\$720,000			
<b>Struvite Treatment</b>								
<b>DWF 2017</b>		<b>\$40,000</b>		2015	\$40,000	Used to retard the deposition of struvite in the centrate		
<b>Potassium Permanganate</b>								
		cost/lb						
est		\$2.25						
<b>PERMANGANATE</b>				lbs	EST			
Trt. Plt	\$33,750		15,000		\$33,750			
DWF	\$0		0		\$0			
<b>BUDGET 2017</b>	<b>\$33,750</b>					2015	\$31,800	

ITEM #11- CHEMICALS

<b>Lime</b>	Required at DWF for pH adjustment and control and stabilization. LIME USE HAS BEEN SUSPENDED AS A RESULT OF AN ALTERNATE DISPOSAL METHOD				
<b>BUDGET 2017</b>	\$0	2015 Budget	\$0		
<b>SODIUM BISULFITE</b>	Required by the NJPDES permit for the removal of residual chlorine in the treatment plant effluent. EST \$1.54/gal x 530 gal/day x 365 = \$297,913				
<b>BUDGET 2017</b>	\$297,913	2015 Budget	\$241,125		
<b>MISCELLANEOUS CHEMICALS</b>					
	SEWERS	Trt. Plt.	DWF	DRYER	
WEED KILLER		\$1,700	\$300	\$300	
BUG REPELLENT		\$500	\$300	\$100	
DEODORANT			\$800		
PEST CONTROL		\$3,500	\$1,500	\$1,000	
SODA ASH (Cogen)		\$15,000			
Carbon (SAG Media)		\$40,000			
Iron Sponge Media Cogen		\$140,000			
OTHER CHEMICALS	\$2,200	\$3,000	\$1,000	\$400	
	sub-tot	\$2,200	\$203,700	\$3,900	\$1,800
					\$211,600
<b>MISC CHEM</b>					
<b>BUDGET 2017</b>	\$211,600	2016 Budget	\$191,600		
<b>Boiler Water Treatment</b>					
<b>BUDGET 2017</b>	\$5,000	2016 Budget	\$5,000		
<b>Carbon Dioxide System</b>					
<b>BUDGET 2017</b>	\$0	2016 Budget	\$0		
<b>Digester Treatment</b>					
<b>Budget 2017</b>	\$480,000	2016 Budget	\$480,000		
<b>Water Filter Chemicals</b>					
<b>Budget 2017</b>	\$35,000	2016 Budget	\$25,000		
<b>BUDGET 2017 Summary</b>					
	SEWERS	TREATMENT PLANT	DEWATER	DRYING	TOTAL
SODIUM HYPOCHLORITE		\$850,000			\$850,000
POLYMER		\$170,000	\$550,000		\$720,000
STRUVITE TRTMNT			\$40,000		\$40,000
PERMANGANATE		\$33,750	\$0		\$33,750
LIME			\$0		\$0
SODIUM BISULFITE		\$297,913			\$297,913
MISC. CHEM.	\$2,200	\$203,700	\$3,900	\$1,800	\$211,600
BOILER TRT				\$5,000	\$5,000
CO2 SYSTEM				\$0	\$0
Digester Treatment		\$480,000			\$480,000
Water Filter Chemical		\$35,000			\$35,000
<b>TOTAL</b>	<b>\$2,200</b>	<b>\$2,070,363</b>	<b>\$593,900</b>	<b>\$6,800</b>	<b>\$2,673,263</b>

ITEM #12- SLUDGE DISPOSAL

<b>2017 BUDGET</b>		<b>\$3,402,000</b>				
<b>2016 BUDGET</b>		<b>\$2,992,116</b>				
<b>2016 ANNUAL ESTIMATE</b>		<b>\$3,000,000</b>				
			Avg tons/month	\$/ton		
1994 expended		\$4,005,879	2978	114.66		
1995 expended		\$3,730,393	2711	114.66		
1996 expended		\$2,129,547	2255	78.66		
1997 expended		\$2,174,815	2256	78.66		
1998 expended		\$1,906,592	2725	78.66		
1999 expended		\$1,838,061	2612	59.50		
2000 expended		\$1,730,872	2466	58.50		
2001 expended		\$1,274,610	1725	\$61.58		
2002 expended		\$1,363,402	1848	\$61.48	* hybrid DWF & SDF	
2003 expended		\$1,837,994	2474	\$61.91	* hybrid DWF & SDF	
2004 expended		\$2,026,738	2679	\$63.04	** Current rate expired Apr 05	
2005 expended		\$1,774,003	2266	\$65.24	hybrid price	
2006 expended		\$2,007,133	2535	\$65.98		
2007 expended		\$2,092,877	2457	\$70.98		
2008 expended		\$2,206,265	2581	\$71.23		
2009 expended		\$2,216,851	2556	\$72.28		
2010 expended		\$2,278,135	2589	\$73.32	blended price	
2011 expended		\$2,471,523	2533	\$81.31	blended price	
2012 expended		\$2,186,478	2425	\$75.14	blended price	
2013 expended		\$1,989,974	2425	\$74.60		
2014 expended		\$1,799,956	2199	\$74.60		
2015 expended		\$2,300,945	2225	\$86.17		
est 2016		\$3,200,709	2516	\$106.01		
		PER MONTH				
		\$283,500	2500	\$113.40		
<b>2017</b>	<b>\$3,402,000</b>					
DWF						
	DWF					
<b>BUDGET</b>	<b>\$3,402,000</b>					



ITEM #13-SALARIES & WAGES

<b>2017 BUDGET</b>		<b>\$3,354,918</b>		
<b>2016 BUDGET</b>		<b>\$3,200,000</b>		
Covers non-union employees who do not qualify for overtime				
		<b>2016</b>	<b>2017</b>	Budget
Plant/Dewatering				
30 employees		\$2,654,687	\$2,707,781	\$2,707,781
Pretreatment/ Sewers				
7 employees		\$634,448	\$647,137	\$647,137
<b>Total 37</b>		<b>\$3,289,135</b>	<b>\$3,354,918</b>	<b>\$3,354,918</b>
Sewer and pretreatment costs split				
Estimated annual cost is _____				
For 2017				
10% Supv	Sewers	\$222,185	\$226,629	Paluch/Kofman
	Pretreatment	\$412,263	\$420,508	
	<b>Total</b>	<b>\$634,448</b>	<b>\$647,137</b>	
Summary				
Plant/Dewat.		2,654,687	2,707,781	
Sewers		222,185	226,629	
Pretreat.		412,263	420,508	
<b>Total 2016</b>		<b>\$3,289,135</b>	<b>\$3,354,918</b>	
ALLOCATION				
Sewers		230,239	234,844	7%
Dewatering				
50% of Plant/Dewat.		1,216,980	1,241,320	37%
Plant		1,841,916	1,878,754	56%
100% of pretreat. Plus 50% of Plant/Dewat.				
<b>Total</b>		<b>\$3,289,135</b>	<b>\$3,354,918</b>	
		<b>2017 BUDGET</b>	<b>\$3,354,918</b>	

ITEM #14- TECH-PROFESSIONAL SVC

2017 BUDGET		\$953,300				
2016 BUDGET		\$877,500				
2016 ANNUAL ESTIMATE		\$850,000				
Historically Budgeted			Expended			
1999	\$650,000		\$494,115			
2000	\$630,000		\$312,473			
2001	\$569,500		\$294,459			
2003	\$501,500		\$521,489			
2004	\$501,500		\$522,929			
2005	\$501,500		\$289,741			
2006	\$520,000		\$280,682			
2007	\$520,000		\$227,230			
2008	\$520,000		\$486,798			
2009	\$520,000		\$291,686			
2010	\$522,500		\$334,314			
2011	\$342,500		\$643,972			
2012	\$677,500		\$656,747			
2013	\$677,500		\$1,269,382			
2014	\$737,500		\$1,108,416			
2015	\$877,500		\$1,113,474			
est 2016	\$877,500		\$911,861			
<p>In 2017 the above services will be required, however, JM's participation in the studies (nutrient, metals and PCB/Dioxin trackdown) with the NJ Harbor Dischargers Group must be provided for, along with the following anticipated projects:</p>						
\$565,000	General Consulting Services (Specifications, Operations, Financial, NJPDES renewal)					
\$150,000	NJPDES Permit issues CSOs					
\$10,000	NJHDG - PCB, Toxics track downs, SWEM, metals					
\$15,000	Auditing Services					
\$20,000	Sewers					
\$10,000	Electrical Consulting					
\$3,000	Medical Exams					
\$7,800	Bioassays					
\$22,500	Lab Testing					
\$10,000	Public Relations & Education					
\$40,000	GIS Map of Industrila Users (NJPDES Requirement)					
\$10,000	Technical support Instrumentation/controls					
\$10,000	Technical support Air Emissions					
\$60,000	Local Limits Study					
\$953,300	TOTAL					
			Sewers	TP	DWF	SDF
for 2017 Budget use	\$953,300	\$25,000	\$878,300	\$50,000	\$0	

ITEM #15-LABOR

<b>2017 BUDGET</b>			<b>\$6,720,787</b>		
<b>2016 BUDGET</b>			<b>\$6,584,097</b>		
				2016	2017
<b>Dewatering</b>					
14 employees				\$1,002,290	\$1,022,336
<b>Pretreatment</b>					
4 employees (Jantas/Heminghouse/Surman/Kofman)				\$305,929	\$312,047
<b>Breakdown of sewer hours</b>					
150 hours divided by 4160 hrs. (2 staff)				2016	2017
		Sewer 5%		\$15,296	\$15,602
		Pretreatment 95%		\$290,632	\$296,445
		Total		\$305,929	\$312,047
<b>Main Plant</b>					
83 employees			79*	\$4,986,246	\$5,085,970
<b>Dryer</b>					
2 employees				\$134,258	\$136,943
<b>Summary</b>					
Dewat				\$1,002,290	\$1,022,336
Sewers				\$15,296	\$15,602
Plant				\$5,276,878	\$5,382,415
Dryer				\$134,258	\$136,943
Total				\$6,428,721	\$6,557,296
<b>On Call Pay</b>					
		For mechanics, electricians & site services workers. To cover Saturdays, Sundays & holidays; contractual.			
Union contract equalized on call pay for electricians and site services workers so it is comparable to that of mechanics.					
				2017	\$74,715
<b>Overtime</b>	Estimate at 6%			2017	2017 OT
Dewat				1,022,336	\$61,340
Sewers				15,602	\$936
Plant				5,382,415	\$322,945
Dryer				136,943	\$5,611
				6,557,296	\$390,832
<b>Summary 2017</b>					
	Plant	Dewat	Sewers	Dryer	Total
Reg	5,085,970	1,022,336	15,602	136,943	6,260,851
O.T.	322,945	61,340	\$936		385,221
On Call	74,715	0	0	0	74,715
Total	5,483,630	1,083,676	16,539	136,943	6,720,787
Budget	5,483,630	1,083,676	16,539	136,943	6,720,787
<b>Total for 2017</b>					<b>\$6,720,787</b>







ITEM #19-RESERVE CONTINGENCY

<b>2017 BUDGET</b>		<b>\$180,000</b>			
<b>2016 BUDGET</b>		<b>\$125,000</b>			
<b>2016 ANNUAL ESTIMATE</b>		<b>\$0</b>			
1. Potentail retirees for 2016					
Retirees are eligible for one-third of their unused sick time					
plus all of their unused vacation time.					
There is a cap on sick time.					
		Sick	Vacation	Total	
6 potential retirees		90,000	45,000	135,000	
age & yrs of service					
			Budget	\$135,000	
2. Contractual incentives for union employees					
Annual cash incentives for possession of various licenses, certifications					
such as S licenses, C licenses, etc.					
Estimate for year				45,000	
<b>Summary</b>					
Plant				180,000	
Dewat				0	
Sewer				0	
Dryer				0	
Total				\$180,000	
<b>2016 BUDGET</b>				<b>\$180,000</b>	







ITEM #22-SOCIAL SECURITY

<b>2017 BUDGET</b>		<b>\$778,951</b>					
<b>2016 BUDGET</b>		<b>\$765,219</b>					
<b>2016 ANNUAL ESTIMATE</b>		<b>\$730,719</b>					
The rate of 7.65% appears to be unchanged for 2017							
Budget #		Sewers	Plant	Dewat	Dryer	Total	
13	Salaries	234,844	1,878,754	1,241,320		3,354,918	
15	Labor	16,539	5,382,415	1,022,336	136,943	6,558,232	
19	Contingencies	0	180,000	0	0	180,000	
27	Board	0	89,221	0	0	89,221	
Total		251,383	7,530,390	2,263,655	136,943	10,182,371	
	7.65%	19,231	576,075	173,170	10,476	778,951	
	Budget						
<b>2017 BUDGET</b>						<b>\$778,951</b>	

ITEM #23 HOSPITAL PLAN

<b>2017 BUDGET</b>	<b>\$3,542,521</b>					
<b>2016 BUDGET</b>	<b>\$3,425,031</b>					
<b>2016 ANNUAL ESTIMATE</b>	<b>\$3,286,091</b>					
Hospitalization and major medical group health insurance for all employees						
Also covered under this category is the employee assistance program.						
<b>Increase of avg 8% for active employees</b>						
			<b>2016</b>	<b>2017</b>		
<u>Retiree health insurance premiums</u>						
	Non Medicare		\$413,922	\$455,178		
	Medicare		\$224,714	\$282,104.0		
			\$638,636	\$737,282.0		
<u>Hospitalization/Major medical</u>						
			<b>2016</b>	<b>2017</b>	<b>8% increase</b>	
Salaried employees			\$543,632	\$587,122		
30						
Pretreatment employees			\$141,927	\$153,281		
7						
Plant employees			\$1,555,443	\$1,679,879		
88						
Dryer employees			\$57,053	\$61,618		
2						
Dewatering employees			\$296,240	\$319,939		
11						
			\$2,594,295	\$2,801,839		
138						
			<b>\$2,594,295</b>	<b>\$2,801,839</b>		
<u>Employee Assistance Plan</u> 2 year contract thru 2017						
St. Barnabas Behavioral Health E.A.P.						
Price is set for 2 years.						
			Annual Cost			
	2016		3,400			
	2017		3,400			
	E.A.P. budget		3,400			
<u>Summary of Group Health and Employee Assistance Plans</u>						
		Sewers	Plant	Dewat	Dryer	Total
Hosp. Plan			2,420,282	319,939	61,618	2,801,839
Employee Asst.Plan			3,400			3,400
Retiree Health			737,282			737,282
Total			3,160,964	319,939	61,618	3,542,521
<b>BUDGET</b>						
						<b>\$3,542,521</b>





ITEM #26-UNEMPLOYMENT & DISAB

<b>2017 BUDGET</b>	<b>\$50,000</b>					
<b>2016 BUDGET</b>	<b>\$50,000</b>					
<b>2016 ANNUAL ESTIMATE</b>	<b>\$16,723</b>					
Employer factor is .25% of 1st \$32,600 for 2016						
2016 limit is set by law at	32,600					
		Plant	Dewat	Sewers	Dryer	Total
# of employees	118	16	2	2		138
	\$9,617	\$1,304	\$163	\$163		\$11,247
Disability Budgeted	\$8,400	\$1,200	\$200	\$200		\$10,000
Unemployment liability	\$34,400	\$4,800	\$400	\$400		\$40,000
<b>BUDGET</b>	<b>\$42,800</b>	<b>\$6,000</b>	<b>\$600</b>	<b>\$600</b>		<b>\$50,000</b>











ITEM #31-UNION WELFARE BENEFIT FUND

2017 BUDGET	\$0				
2016 BUDGET	\$75,000			NO LONGER PAYING	
2016 ANNUAL ESTIMATE	\$59,349			Employees now included in Group Plan	
Union contract provides for dental, vision and prescription benefits for employees represented by Teamster's Local 641.					
Joint Meeting pays the cost of the premiums.					
Local 575 administers the program.					
The cost per employee as per the union contract is \$75.00 per month. This amount has not changed in 9 years.					
Distribution					
	Sewers	Plant	Dewat	Dryer	Total
# of employees	2	68	11	3	84
Annual cost is 900.	0	0	0	0	0
2016 Budget	0	0	0	0	0
<b>TOTAL BUDGET</b>					<b>\$0</b>



ITEM #33-PERMIT FEES

2017 BUDGET	\$568,700					
2016 BUDGET	\$568,700					
2016 ANNUAL ESTIMATE	\$565,000					
<p>This item is for NJPDES permits including the wastewater treatment facility and drying facility permits issued by the NJDEP as well as other operating permits issued by NJDEP, USEPA and USNRC. The Treatment Plant NJPDES fee is normally based on wastewater characteristics (flow, BOD, TSS) as measured prior to discharge to the Arthur Kill. The permit fee system supports the NJDEP Budget. As of the 2000 Budget this item incorporates the Miscellaneous Permit Fees (previously Item #34).</p>						
Historical NJPDES Permit Fee						
	1996	\$490,300		2009		\$410,936
	1997	\$228,173		2010		\$500,000
	1998	\$230,760		2011		\$401,000
	1999	\$229,517		2012		\$341,877
	2000	\$270,966		2013		\$464,557
	2001	\$237,595		2014		\$506,692
	2002	\$250,085		2015		\$479,878
	2003	\$316,646				
	2004	\$248,074				
	2005	\$211,648				
	2006	\$284,630				
	2007	\$305,997				
	2008	\$354,503				
This item includes permits, fees, etc. to be paid to Regulatory Agencies for the following:						
NJDEP-NJPDES PERMIT: TREATMENT PLANT						
						\$485,000
	Plant Storm Sewer Permit					\$1,500
	Underground Storage Tank (TP & DWF)					\$3,000
	Laboratory Certification Fees (TP)					\$2,500
	NJDEP Physical Connection Permit (TP & DWF)					\$1,000
	Air Permit Applications-Modifications					\$5,000
	Nuclear Level Sensors(DWF & SDF)					\$2,500
	Hazardous Waste Disposal permit fees					\$3,000
	NJPDES Combined Sewer					\$8,200
	Air Emissions Fee					\$37,500
	Miscellaneous (TP & DWF) TCPA, TWA, DPCC					\$10,000
				Total		\$559,200
						say
Budget		Sewers			\$9,700	\$9,700
		Treatment Plant			\$547,000	\$547,000
		Sludge Dewatering			\$12,000	\$12,000
		Sludge Drying			\$0	\$0
		TOTAL			\$568,700	\$568,700
		Budget			\$568,700	





JOINT MEETING OF ESSEX UNION COUNTIES Facility Summary Breakout

		COLLECTION SYSTEM	TREATMENT PLANT	SLUDGE DEWATERING FACILITY	SLUDGE DRYING FACILITY	TOTAL ALL FACILITIES
		2017 BUDGET	2017 BUDGET	2017 BUDGET	2017 BUDGET	2017 BUDGET
1	VEHICLES	\$16,250	\$62,333	\$12,417		\$91,000
2	EQUIP RENTAL	\$180,000	\$90,000	\$30,000		\$300,000
3	INSURANCE	25,061.23	\$ 626,530.81	125,306.16	58,476.21	\$835,374
4	WATER		\$95,000	\$40,000	\$3,500	\$138,500
5	ELECTRIC		\$1,030,974	\$120,365	\$8,781	\$1,160,120
6	GAS		\$406,200	\$90,000	\$0	\$496,200
7	FUEL OIL		\$188,500	\$38,000		\$226,500
8	SEWER REPAIR	\$60,000				\$60,000
9	METER REPAIRS	\$317,000				\$317,000
10	EQUIP		\$335,000	\$380,500		\$715,500
11	CHEMICALS	\$2,200	\$2,070,363	\$593,900	\$6,800	\$2,673,263
12	SLUDGE DISP			\$3,402,000		\$3,402,000
13	SALARIES & WAGES	\$234,844	\$1,878,754	\$1,241,320		\$3,354,918
14	TECHNICAL PROF. SERV.	\$25,000	\$878,300	\$50,000	\$0	\$953,300
15	LABOR	\$16,539	\$5,483,630	\$1,083,676	\$136,943	\$6,720,787
16	PRINTING	\$1,000	\$21,000	\$2,000		\$24,000
17	MISC EXPENSES	\$120,000	\$375,727	\$87,500	\$0	\$583,227
18	GEN PLANT MAINT		\$1,610,000	\$703,000	\$5,000	\$2,318,000
19	RESERVE CONTINGENCY		\$180,000			\$180,000
20	BUILDING MAINT		\$55,000	\$15,000		\$70,000
21	PENSION	\$23,459	\$891,430	\$234,587	\$23,459	\$1,172,934
22	SOCIAL SECURITY	\$19,231	\$576,075	\$173,170	\$10,476	\$778,951
23	HOSPITAL PLAN	\$0	\$3,160,964	\$319,939	\$61,618	\$3,542,521
24	UNIFORMS	\$2,400	\$97,200	\$20,400		\$120,000
25	SCREENINGS		\$160,000			\$160,000
26	UNEMPLOYMENT	\$600	\$42,800	\$6,000	\$600	\$50,000
27	EXECUTIVE COMMITTEE		\$88,945			\$88,945
28	COUNSEL FEES	\$10,000	\$260,000	\$20,000	\$10,000	\$300,000
29	OFFICERS					\$0
30	ADMIN GROUP PLAN	\$16,383	\$318,553	\$29,125		\$364,061
31	UNION WELFARE FUND	\$0	\$0	\$0	\$0	\$0
32	CAPITAL FUND		\$1,250,000			\$1,250,000
33	NJPDES PERMIT FEE	\$9,700	\$547,000	\$12,000	\$0	\$568,700
34	MISC PERMITS-FEES					\$0
35	NJED AUTHORITY LOAN				\$0	\$0
	TOTAL	\$1,079,666	\$22,780,280	\$8,830,204	\$325,652	\$33,015,802