

**THE JOINT MEETING OF
ESSEX AND UNION COUNTIES
2016 BUDGET**

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

**BOARD CHAIRPERSON
HON. JOSEPH FLORIO**

**FINANCE & BUDGET COMMITTEE CHAIRPERSON
HON. HOWARD LEVISON**

**COMMITTEE MEMBERS
HON. LONNIE HUGHES
HON. VICTOR CIRILO
HON. MIKE McTERNAN**

**Adopted:
NOVEMBER 12, 2015**

ITEM #1- VEHICLES

2016 BUDGET		\$97,000				
2015 BUDGET		\$82,500				
2015 ANNUAL ESTIMATE		\$55,000				
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:						
3 replacement Plant Carts			\$12,000			
Replace 2 Mech Dept vans			\$12,000			
Replace 1 van w/used vehicle			\$8,000			
			\$32,000			
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	\$28,000	\$26,000	\$13,000	\$67,000		
DWF	\$4,000	\$6,500	\$3,250	\$13,750		
BUDGET	\$32,000	\$45,500	\$19,500	\$97,000		

ITEM #2- EQUIPMENT RENTAL

2016 BUDGET		\$300,000				
2015 BUDGET		\$300,000	Historical	expenses		
2015 ANNUAL ESTIMATE		\$265,000	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		
<p>Work completed by utilizing Equipment rental has been:</p> <ol style="list-style-type: none"> 1) Off loading of equipment delivered to site (cranes & forklifts) 2) Cleaning of scum pits, scum and grit lines, centrate system at DWF 3) Storm sewer manhole maintenance 4) Trunk sewer maintenance 5) rental of 30 cubic yard containers <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 2016 bids will be received for emergency excavation services. The excavation services were used in 2015 for sewer excavations related to repairs, bypass pumping during sewer repairs and for on site excavations. The contract is awarded to the bidder who offered services for the lowest cumulative rates.</p>						
Equipment rental as bid	\$90,000	**				
additional excavating services	\$50,000	**				
Off loading & cranes	\$20,000					
30 yd containers	\$15,000					
Debris removal Millburn Crossing	\$25,000					
TOTAL	\$300,000		Sewers	TP	DWF	
BUDGET	\$300,000		\$180,000	\$90,000	\$30,000	

ITEM # 3-INSURANCE

2016 BUDGET		\$ 755,320			
2015 BUDGET		\$ 767,979			
2015 ANNUAL ESTIMATE		\$760,000			
COST DISTRIBUTION 2014 - 2015					
	Sewers	Plant	Dewat	Drying	Total
Boiler					-
Property		93,571	18,714	12,476	124,761
Gen Liability	847	42,374	8,475	4,802	56,498
Auto	138	6,884	1,377	780	9,179
LTD					
Inland Marine	-		-		-
Equip					27,040
Flood	-	25,515	5,985	-	31,500
Wk comp	4,403	220,149	44,030	24,950	293,532
Pollution	-	12,461	12,461		24,922
Umbrella	800	39,985	7,997	4,532	53,313
Public Officials	256	12,793	2,559	1,450	17,057
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
Total	7,320	463,268	103,738	50,710	\$ 652,076
	2016 estimate				Total Est. 2016
Months	4		8		
Boiler		INCL		-	
Property*	41,587		95,650	137,237	\$ 147,530
Gen Liability*	18,833		43,315	62,148	66,809
Auto*	3,059.67		7,037	10,097	10,854
LTD		INCL	-	-	-
Inland Marine*	-		-	-	-
Equip	9,013		20,731	29,744	31,975
Flood*	10,500		24,150	34,650	37,249
Wk Comp	97,844		225,041	322,885	332,572
Pollution*	8,307		19,107	27,414	29,470
Umbrella*	17,771		40,873	58,644	63,043
Public Officials*	5,686		13,077	18,763	19,326
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
					755,320
	Sewers	Plant	Dewat	Drying	Total
	3.00%	75.00%	15.0%	7.00%	100.00%
	22,659.61	\$ 566,490.16	113,298.03	52,872.41	755,320
TOTAL	217,359		499,925	\$ 717,284	\$ 755,320

ITEM #4- WATER SERVICE

2016 BUDGET		\$138,500							
2015 BUDGET		\$238,500							
2015 ANNUAL ESTIMATE		\$125,000							
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	7,096,534	\$0.0182	64.84%	35.16%		3.03%		
1999	\$168,631	7,764,332	\$0.0217	66.03%	33.97%		19.17%		
2000	\$173,323	7,519,362	\$0.0231	67.19%	32.81%		6.13%		
2001	\$187,266	8,516,441	\$0.0220	75.45%	24.55%		(4.61%)		
2002	\$193,902	7,449,304	\$0.0260	71.49%	27.78%	0.73%	18.38%		
2003	\$193,961	7,094,573	\$0.0273	72.08%	27.92%		5.03%		
2004	\$182,883	6,901,143	\$0.0265	73.04%	26.96%		(3.07%)		
2005	\$197,270	7,667,609	\$0.0257	74.90%	25.10%		(2.92%)		
2006	\$204,683	7,173,277	\$0.0285	73.70%	26.30%		10.91%		
2007	\$216,304	6,902,363	\$0.0313	75.98%	24.02%		9.83%		
2008	\$205,861	6,114,583	\$0.0337	73.08%	26.92%		7.43%		
2009	\$233,081	6,170,587	\$0.0378	69.06%	30.94%		12.19%		
2010	\$263,638	6,510,611	\$0.0405	74.33%	25.67%		7.20%		
2011	\$245,614	6,129,945	\$0.0401	74.87%	25.13%		(1.05%)		
2012	\$203,011	4,731,658	\$0.0429	70.59%	29.41%		7.08%		
2013	\$112,330	2,486,642	\$0.0452	68.42%	31.58%		4.41%	Avg last 3 years	
2014	\$89,325	2,154,294	\$0.0415	72.94%	27.06%		3.48%	Avg last 3 years	
Est 2015	\$121,009	2,120,000	\$0.0571	57.00%	43.00%		.		
2016 BUDGET	TRT PLT	DWF	DRYER	TOTAL CU FT	RATE				
	1,600,000	600,000	0	2,200,000	\$0.0591				
	\$94,524	\$35,447	\$0	\$129,971					
		Water Facility Charge		SAY					
TP	\$94,524		\$94,524	\$95,000					
DWF	\$35,447		\$35,447	\$40,000					
SDF	\$0	\$3,500	\$3,500	\$3,500					
				\$138,500					
BUDGET	\$138,500								

ITEM #5- ELECTRIC SERVICE

2016 BUDGET		\$1,065,500								
2015 BUDGET		\$1,245,000								
2015 ANNUAL ESTIMATE		\$1,060,000								
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	546,110	1,470,498	1,823,314	177,233	16,061	
Est 2015	490,000	\$70,239	0.143	2,065,000	489,909	1,575,000	1,839,833	212,631	12,536	*2
estimated savings from Cogen for 2015 MONTHLY				\$225,768		* DIGESTER #2 OUT OF SERVICE	***** DIGESTER #3 OUT OF SERVICE			
ANNUALLY				\$2,709,218.57		** 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 2016									
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						
Est 2015	1,839,833	212,631	12,536						
Avg 13, 14, 15	1,815,120	199,312	14,592						
Avg 13, 14	1,802,763	192,652	15,620						
Avg 14, 15	1,831,573	192,652	14,299						
Expected 2016	1,816,486	194,872	15,179						
say	1,820,000	200,000	15,000						
Total Demand per Month>					2,035,000				
FY 2016	24,420,000	KWH							
Generator production				Monthly Avg					
1998	626,200		2004	649,227	2010	1,389,860			
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			
			for 2016	1,575,000					
PSE&G= total demand - (Cogen production-production loss)									
	24,420,000	18,900,000	2,900,000	>>>>>>>>>	8,420,000				
8,420,000	say:	8,420,000	@	0.095	\$/KwH				
cost		\$799,900							
add area lighting & partial lab:		\$13,000							
Add PSE&G Dist Chgs:		\$252,600		88.9%	10.4%	0.8%	100.0%		
Sales Taxes									
EST	\$1,065,500		Sewers	TP	DWF	SDF			
			\$0	\$946,887	\$110,548	\$8,065	\$1,065,500		
BUDGET	\$1,065,500								

ITEM #6-GAS SERVICE

2016 BUDGET		\$435,200	This item includes gas utilized at:					
2015 BUDGET		\$825,200	1) Treatment plant laboratory					
2015 ANNUAL ESTIMATE		\$650,000	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.					
HISTORY								
YEAR	\$	Avg.RATE/CU FT	TPLT	COGEN	DWF	SDF	TOTAL CU FT	
1999	\$70,464	0.0130	2,049,300	2,861,600	514,210	0	5,425,110	
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	
Est 2015	\$550,000			63,192,000	12,000,000	0	75,192,000	
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			
1999	37,117,872,900	31,421,507,400	5,696,365,500	0	\$0.005449			
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			
Est 2015	86,718,123,900	8,421,723,900	78,296,400,000	0	\$0.004151			
	NG cu ft	RATE	EXTENSION	Service Chg		SAY		
P&O/Treatment Plt./Lab	0		\$0	\$132	\$132	\$200		
Cogen	75,000,000	\$0.0041	\$307,500	\$26,540	\$334,040	\$350,000		
DWF	13,000,000	\$0.0053	\$68,900	\$16,540	\$85,440	\$85,000		
Dryer	0		\$0	\$0	\$0	\$0		
Total	88,000,000		\$376,400	\$43,212	\$419,612	\$435,200		
BUDGET	\$435,200							

ITEM #7- FUEL OIL AND KEROSENE

2016 BUDGET	\$391,500					
2015 BUDGET	\$489,000					
2015 ANNUAL ESTIMATE	\$126,900					
				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	
		Est 2015	59,225	\$126,900	\$2.14	

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 2 year contract FY 2015-2016

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 2016		@	\$3.00	PER GAL		
				Fuel oil	Kerosene	BUDGET
Treatment Plant	100,000		\$300,000	\$300,000	\$1,000	\$301,000
DWF	30,000		\$90,000	\$90,000	\$500	\$90,500
SDF	0		\$0	\$0	\$0	\$0
	130,000	gallons	\$390,000			\$391,500
		kerosene	\$1,500			
		TOTAL	\$391,500			
		BUDGET	\$391,500			\$391,500

ITEM #8 - SEWER MAINTENANCE

2016 BUDGET	\$60,000					
2015 BUDGET	\$60,000					
2015 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				
	BUDGET		\$60,000			

ITEM #9- METER REPAIRS

2016 BUDGET	\$317,000						
2015 BUDGET	\$317,000						
2015 ANNUAL ESTIMATE	\$237,750						
<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 2016 the budget includes maintenance agreements to maintain the 32 flow meter sites and repairs outside the scope of the maintenance agreement.</p>							
		SEWERS					
METERS	\$317,000						

ITEM #11- CHEMICALS

2016 BUDGET		\$2,828,263	This item is comprised of:					
2015 BUDGET		\$2,969,400		1) Chlorine (Trt Plt)		7) Potassium Permanganate (Trt Plt & DWF)		
2015 ANNUAL ESTIMATE		\$2,125,000		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)		
BUDGET						13) Digester Additive		
Sodium Hypochlorite	(Treatment Plant) chlorination of wastewater effluent prior to discharge							
	Contract for 2016 use \$0.67/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				
	Est 2015	1,146,000	\$767,820	\$0.67				
BUDGET 2016: 1,500,000 gal		\$1,005,000	1,500,000	\$1,005,000				
Polymer	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							
	Contract to supply liquid polymer for year 2016 use \$0.11/lb. For 2016: 125,000 #/mo X 12 mo X \$0.11/# = \$165,000							
					SAY \$170,000			
	Contract for Dry polymer for 2016: use @ \$ 1.52/# For 2016 : 30,000#/mo X 12 mo X \$ 1.52/# = \$547,200							
					SAY \$550,000			
POLYMER								
Trt. Plt		\$170,000						
DWF		\$550,000						
BUDGET 2016		\$720,000		2015 Budget	\$720,000			
Struvite Treatment								
DWF 2016		\$40,000		2015	\$40,000	Used to retard the deposition of struvite in the centrate		
Potassium Permanganate								
		cost/lb						
	est	\$2.25						
PERMANGANATE				lbs	EST			
Trt. Plt		\$33,750		15,000	\$33,750			
DWF		\$0		0	\$0			
BUDGET 2016		\$33,750				2015	\$31,800	

ITEM #11- CHEMICALS

Lime	Required at DWF for pH adjustment and control and stabilization. LIME USE HAS BEEN SUSPENDED AS A RESULT OF AN ALTERNATE DISPOSAL METHOD				
BUDGET 2016	\$0	2015 Budget	\$0		
SODIUM BISULFITE	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				
BUDGET 2016	\$297,913	2015 Budget	\$241,125		
MISCELLANEOUS CHEMICALS					
	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
MISC CHEM					
BUDGET 2016	\$211,600	2015 Budget	\$191,600		
Boiler Water Treatment					
BUDGET 2016	\$5,000	2015 Budget	\$5,000		
Carbon Dioxide System					
BUDGET 2016	\$0	2015 budget	\$0		
Digester Treatment					
Budget 2016	\$480,000	2015 Budget	\$480,000		
Water Filter Chemicals					
Budget 2016	\$35,000	2015 Budget	\$25,000		
BUDGET 2016 Summary					
	SEWERS	TREATMENT PLANT	DEWATER	DRYING	TOTAL
SODIUM HYPOCHLORITE		\$1,005,000			\$1,005,000
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
TOTAL	\$2,200	\$2,225,363	\$593,900	\$6,800	\$2,828,263

ITEM #12- SLUDGE DISPOSAL

2016 BUDGET		\$2,992,116				
2015 BUDGET		\$2,171,808				
2015 ANNUAL ESTIMATE		\$2,765,341				
			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		
Est 2015		\$2,320,914	2161	\$89.50		
2016		PER MONTH				
		\$249,343	2300	\$108.41		
2016	\$2,992,116					
DWF						
	DWF					
BUDGET	\$2,992,116					

ITEM #13-SALARIES & WAGES

2016 BUDGET		\$3,204,541		
2015 BUDGET		\$3,204,541		
Covers non-union employees who do not qualify for overtime				
		2015	2016	Budget
Plant/Dewatering				
30 employees		\$2,603,463	\$2,603,463	\$2,603,463
Pretreatment/ Sewers				
7 employees		\$601,078	\$601,078	\$601,078
Total 37		\$3,204,541	\$3,204,541	\$3,204,541
Sewer and pretreatment costs split				
Estimated annual cost is _____				
For 2016				
10% Supv	Sewers	\$217,824	\$217,824	Paluch/Kofman
	Pretreatment	\$383,254	\$383,254	
	Total	\$601,078	\$601,078	
Summary				
Plant/Dewat.		2,603,463	2,603,463	
Sewers		217,824	217,824	
Pretreat.		383,254	383,254	
Total 2016		\$3,204,541	\$3,204,541	
ALLOCATION				
Sewers		224,318	224,318	7%
Dewatering				
50% of Plant/Dewat.		1,185,680	1,185,680	37%
Plant		1,794,543	1,794,543	56%
100% of pretreat. Plus 50% of Plant/Dewat.				
	Total	\$3,204,541	\$3,204,541	
2016 BUDGET				
		\$3,204,541		

ITEM #14- TECH-PROFESSIONAL SVC

2016 BUDGET		\$877,500				
2015 BUDGET		\$877,500				
2015 ANNUAL ESTIMATE		\$757,668				
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		\$757,668	est		
<p>In 2016 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)					
\$125,000	NJPDES Permit issues					
\$10,000	NJHDG - PCB, Toxics track downs, SWEM, metals					
\$15,000	Auditing Services					
\$20,000	Sewers					
\$10,000	Electrical Consulting					
\$3,000	Medical Exams					
\$2,500	Bioassays					
\$17,000	Lab Testing					
\$10,000	Public Relations & Education					
\$10,000	Technical support Instrumentation/controls					
\$10,000	Technical support Air Emissions					
\$60,000	Local Limits Study					
\$877,500	TOTAL					
			Sewers	TP	DWF	SDF
for 2016 Budget use	\$877,500	\$25,000	\$802,500	\$50,000	\$0	

ITEM #15-LABOR

2016 BUDGET			\$6,584,097		
2015 BUDGET			\$6,584,097		
				2015	2016
Dewatering					
14 employees				\$1,002,290	\$1,002,290
Pretreatment					
4 employees (Jantas/Heminghause/Surman/Kofman)				\$305,929	\$305,929
Breakdown of sewer hours					
150 hours divided by 4160 hrs. (2 staff)				2015	2015
		Sewer 5%		\$15,296	\$15,296
		Pretreatment 95%		\$290,632	\$290,632
		Total		\$305,929	\$305,929
Main Plant					
83 employees			79*	\$4,986,246	\$4,986,246
Dryer					
2 employees				\$134,258	\$134,258
Summary					
Dewat				\$1,002,290	\$1,002,290
Sewers				\$15,296	\$15,296
Plant				\$5,276,878	\$5,276,878
Dryer				\$134,258	\$134,258
Total				\$6,428,721	\$6,428,721
On Call Pay					
		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.					
				2016	\$68,340
Overtime	Estimate at 6%			2016	2016 OT
Dewat				1,002,290	\$60,137
Sewers				15,296	\$918
Plant				5,276,878	\$316,613
Dryer				134,258	\$5,611
				6,428,721	\$383,279
Summary 2016					
	Plant	Dewat	Sewers	Dryer	Total
Reg	4,986,246	1,002,290	15,296	134,258	6,138,089
O.T.	316,613	60,137	\$918		377,668
On Call	68,340	0	0	0	68,340
Total	5,371,198	1,062,427	16,214	134,258	6,584,097
Budget	5,371,198	1,062,427	16,214	134,258	6,584,097
Total for 2015					\$6,584,097

ITEM #16- PRINTING & STATIONERY

2016 BUDGET		\$24,000					
2015 BUDGET		\$24,000					
2015 ANNUAL ESTIMATE		\$15,000					
<p>This item consists of printing of monthly minutes, binding of annual minutes (including preparation of index), stationery, operation/personnel/maintenance/lab forms, copying blueprints, etc. Requests for quotes for printing and binding minutes were sent out.</p>							
Historical	2000	\$27,782					
	2001	\$14,708					
	2002	\$13,897					
	2003	\$19,272					
	2004	\$11,805					
	2005	\$14,712					
	2006	\$21,962					
	2007	\$15,753					
	2008	\$28,074					
	2009	\$13,213					
	2010	\$39,034					
	2011	\$18,935					
	2012	\$34,698					
	2013	\$20,005					
	2014	\$3,716					
		Sewers	TP	DWF	SDF		
BUDGET		\$1,000	\$21,000	\$2,000	\$0	\$24,000	

ITEM #18- GENERAL MAINTENANCE

2016 BUDGET		\$1,918,000			
2015 BUDGET		\$1,718,000			
2015 ANNUAL ESTIMATE		\$1,692,340			
<p>This item includes items necessary for the general maintenance of the entire facility (Treatment Plant, DWF, SDF) such as repair parts, hardware, supplies (janitorial, lab, electrical, boiler service, powerhouse service, etc. The expense history reflects as an indication, the age of the facilities.</p>					
HISTORICAL		Expended	Budgeted		
	2000	\$969,295	\$928,000		
	2001	\$1,148,269	\$930,000		
	2002	\$957,918	\$1,097,000		
	2003	\$1,004,829	\$1,050,500		
	2004	\$896,915	\$1,000,000		
	2005	\$1,037,000	\$1,170,068		
	2006	\$1,136,000	\$1,071,326		
	2007	\$1,264,014	\$1,125,100		
	2008	\$1,087,100	\$1,282,241		
	2009	\$1,192,044	\$1,232,600		
	2010	\$1,390,600	\$1,511,850		
	2011	\$1,495,645	\$1,320,000		
	2012	\$1,872,156	\$1,446,500		
	2013	\$1,421,500	\$2,708,336		
	2014	\$1,466,500	\$2,333,100		
Projects anticipated for 2016					
					\$12,000
					\$5,000
					\$14,000
					\$10,000
					\$32,000
					\$30,000
					\$40,000
					\$8,000
					\$8,000
					\$240,000
					\$20,000
					\$35,000
					\$210,000
					\$50,000
					\$25,000
					\$12,000
					\$60,000
					\$130,000
					\$32,000
					\$70,000
				TOTAL	\$1,043,000
		TP	DWF	SDF	
	Routine Maint & Repair	\$610,000	\$260,000	\$5,000	\$875,000
	Major Projects	\$650,000	\$393,000	\$0	\$1,043,000
		\$1,260,000	\$653,000	\$5,000	\$1,918,000

ITEM #19-RESERVE CONTINGENCY

2016 BUDGET		\$125,000			
2015 BUDGET		\$125,000			
2015 ANNUAL ESTIMATE		\$85,000			
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	
4 potential retirees		35,000	45,000	80,000	
age & yrs of service					
			Budget	\$80,000	
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	
Summary					
Plant				125,000	
Dewat				0	
Sewer				0	
Dryer				0	
Total					
2016 BUDGET				\$125,000	

ITEM #20- BUILDING MAINTENANCE

2016 BUDGET	\$70,000					
2015 BUDGET	\$70,000					
2015 ANNUAL ESTIMATE	\$97,000					
<p>This item cover those items associated with repairs to buildings and grounds facilities such as windows, locks, doors, roof inspections & repairs, elevators and plant roads. Also anticipated are repairs to concrete walkways and painting of gallery piping.</p>						
HISTORY						
	1996	\$58,872				
	1997	\$80,000				
	1998	\$121,036				
	1999	\$39,141				
	2000	\$28,732				
	2001	\$29,204				
	2002	\$61,735				
	2003	\$36,489				
	2004	\$80,651				
	2005	\$101,968				
	2006	\$133,589				
	2007	\$98,618				
	2008	\$78,711				
	2009	\$46,804				
	2010	\$93,979				
	2011	\$28,374				
	2012	\$39,902				
	2013	\$120,054				
	2014	\$80,016				
		Sewers	TP	DWF	SDF	
BUDGET		\$0	\$55,000	\$15,000	\$0	\$70,000

ITEM #22-SOCIAL SECURITY

2016 BUDGET		\$765,219					
2015 BUDGET		\$765,219					
2015 ANNUAL ESTIMATE		\$760,000					
The rate of 7.65% appears to be unchanged for 2016							
Budget #		Sewers	Plant	Dewat	Dryer	Total	
13	Salaries	224,318	1,794,543	1,185,680		3,204,541	
15	Labor	16,214	5,371,198	1,062,427	134,258	6,584,097	
19	Contingencies	0	125,000	0	0	125,000	
27	Board	0	89,221	0	0	89,221	
Total		240,532	7,379,962	2,248,107	134,258	10,002,859	
	7.65%	18,401	564,567	171,980	10,271	765,219	
	Budget						
2016 BUDGET						\$765,219	

ITEM #23 HOSPITAL PLAN

2016 BUDGET	\$3,425,031					
2015 BUDGET	\$2,973,279					
2015 ANNUAL ESTIMATE						
Hospitalization and major medical group health insurance for all employees Also covered under this category is the employee assistance program.						
Increase of avg 8% for active employees						
			2015	2016		
<u>Retiree health insurance premiums</u>						
	Non Medicare		\$400,459	\$432,496		
	Medicare		\$171,556	\$185,281		
			\$574,030	\$619,793		
<u>Hospitalization/Major medical</u>			2015	2016	8% increase	
	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					
	138		\$2,594,295	\$2,801,839		
			\$2,594,295	\$2,801,839		
<u>Employee Assistance Plan</u>		2 year contract thru 2016				
St. Barnabas Behavioral Health E.A.P.						
Price is set for 2 years.						
			Annual Cost			
	2015		3,400			
	2016		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		619,793			619,793
	Total		3,043,475	319,939	61,618	3,425,031
BUDGET						\$3,425,031

ITEM #26-UNEMPLOYMENT & DISAB

2016 BUDGET	\$50,000					
2015 BUDGET	\$49,126					
2015 ANNUAL ESTIMATE						
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	34400	4800	400	400		40000
BUDGET	\$42,800	\$6,000	\$600	\$600		\$50,000

ITEM #33-PERMIT FEES

2016 BUDGET	\$568,700					
2015 BUDGET	\$568,700					
2015 ANNUAL ESTIMATE	\$568,700					
<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		est 2015		\$568,700
	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
		2016 BUDGET	2016 BUDGET	2016 BUDGET	2016 BUDGET	2016 BUDGET
1	VEHICLES	\$16,250	\$67,000	\$13,750		\$97,000
2	EQUIP RENTAL	\$180,000	\$90,000	\$30,000		\$300,000
3	INSURANCE	22,659.61	\$ 566,490.16	113,298.03	52,872.41	\$755,320
4	WATER		\$95,000	\$40,000	\$3,500	\$138,500
5	ELECTRIC		\$946,887	\$110,548	\$8,065	\$1,065,500
6	GAS		\$350,200	\$85,000	\$0	\$435,200
7	FUEL OIL		\$301,000	\$90,500		\$391,500
8	SEWER REPAIR	\$60,000				\$60,000
9	METER REPAIRS	\$317,000				\$317,000
10	EQUIP		\$400,000	\$168,500		\$568,500
11	CHEMICALS	\$2,200	\$2,225,363	\$593,900	\$6,800	\$2,828,263
12	SLUDGE DISP			\$2,992,116		\$2,992,116
13	SALARIES & WAGES	\$224,318	\$1,794,543	\$1,185,680		\$3,204,541
14	TECHNICAL PROF. SERV.	\$25,000	\$802,500	\$50,000	\$0	\$877,500
15	LABOR	\$16,214	\$5,371,198	\$1,062,427	\$134,258	\$6,584,097
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		\$1,260,000	\$653,000	\$5,000	\$1,918,000
19	RESERVE CONTINGENCY		\$125,000			\$125,000
20	BUILDING MAINT		\$55,000	\$15,000		\$70,000
21	PENSION	\$21,081	\$801,071	\$210,808	\$21,081	\$1,054,041
22	SOCIAL SECURITY	\$18,401	\$564,567	\$171,980	\$10,271	\$765,219
23	HOSPITAL PLAN	\$0	\$3,043,475	\$319,939	\$61,618	\$3,425,031
24	UNIFORMS	\$2,000	\$81,000	\$17,000		\$100,000
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	\$12,546	\$243,941	\$22,303		\$278,789
31	UNION WELFARE FUND	\$2,000	\$61,000	\$10,000	\$3,000	\$76,000
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	\$1,060,969	\$21,990,707	\$8,083,250	\$317,064	\$31,451,990