

Water Pollution Control Division Budget Variances and Impact

FY 2017-2018

Cost Center 118-3014

The Water Pollution Control Division is nearing completion of its phosphorus treatment upgrade. The new system, mandated by the DEEP and EPA, will reduce the amount of phosphorus in the plant effluent. Phosphorus is a nutrient that promotes algae growth in the receiving waters, the Pequabuck River, the Farmington River and the Connecticut River as water flows to the Long Island Sound. As anticipated operation of the new process will increase annual operating cost in a number of cost centers. The proposed budget includes additional costs for chemicals, electricity, salaries, increased sludge disposal, maintenance, laboratory testing and heating fuels.

**Salaries and Health Benefits (7.5% increase)**

The Water Pollution Control infrastructure is aging and the requirements to operate and maintain the facilities are steadily increasing. In addition to the age of the existing facilities, we are currently overseeing a major addition to the treatment process that will also increase labor demands in the coming years. We proposed two additional positions for FY 17-18; one additional Process Operator and one additional Electro-Mechanic.

The proposed budget does not include any increase in health benefit premiums based on the preliminary guidance from the Comptroller's Office.

The salaries for BPSA members include a 5.4% increase over the original appropriation for FY 16-17 due to contractual increases over multiple years. Salary projections for members of 233 and 1338 remain unchanged pending the outcome of contract negotiations.

**Services and Supplies (20% increase overall)**

The Division is requesting additional funding in the following accounts to do the mandated phosphorus reduction treatment upgrades. All anticipated costs are based on engineering estimates for similar treatment processes and initial small scale pilot testing.

<b>Light and Power</b>	<b>\$ 25,000</b>
<b>Byproduct Disposal Fees</b>	<b>\$ 70,000</b>
<b>Maintenance (Chemical) Supplies</b>	<b>\$ 330,000</b>
<b>Natural Gas</b>	<b>\$ 2,000</b>
	<b>\$ 427,000</b>

\*Light and Power and Natural Gas costs are offset by current favorable utility prices.

**Collection System Maintenance and Rehab (\$90,000 increase)**

**Professional Fees (Police traffic control) (\$20,000 increase)**

The WPC Division maintains over 238 miles of sanitary sewer. Portions of the piping network are over 100 years old. The Division was able to rehabilitate portions of the collection system under various Infiltration and Inflow reduction contracts but that work was limited to deteriorated pipe and manholes that have active groundwater intrusion. Staff inspections performed as part of our ongoing grout sealing operation have found many aging manholes that require structural repair and general age related rehabilitation.

For a number of years the Division has been evaluating the option of purchasing a second sewer grout sealing vehicle and creating an additional vehicle operator position to address the rehabilitation needs of the City's sewers. The initial capital costs, annual salary and operation cost to expand the in house grouting operation are very high. Additionally, expanding the current operation would put a significant demands on the division staff. Given the work load and financial demands of the new phosphorus process it is not feasible to expand the grout rehabilitation operation at this time.

In order to meet the demand for system rehabilitations without incurring the capital, salary and benefit expenses the division is proposing to increase the funding allocated to outside contracted rehabilitation work. We are requesting an additional \$90,000 funding to this account. This is roughly equal to the annual cost of the salary, benefits and material costs that would be have been incurred expanding our in house operations, but avoids the initial capital equipment expense.

We are also requesting a \$20,000 increase in Professional Fees and Services to cover the anticipated cost of uniform police officer traffic control as need to support the increased work in the roadways.

### **Capital Equipment**

The items requested in Capital Equipment budget are explained elsewhere in the Expenditure Justification page.

### **Impact Statement**

As a Special Operating Fund the Division is required to maintain a balanced budget, fund its operating expenses, debt service obligations and capital upgrades and improvements from sewer usage revenues and Reserve fund.

As a Special Operating Fund our budgetary consideration and user rates are driven by Debt Service and projected Capital Improvement needs. The Division has been preparing for a major DEEP and EPA mandate to upgrade our facility to treat Phosphorus for a number of years. In the spring of 2017 we anticipate completion of a \$15,000,000 plant upgrade to meet the new treatment standards. The project has been approved for 50% grant funding and 50% funding through a Clean Water Fund loan. Future debt service costs for the loan repayment will be approximately \$400,000 per year beginning in fiscal year 2019. In preparation of the additional operating expenses included in this budget proposal and the upcoming debt service obligation, the Sewer Authority has adopted a program of annual rate increases. This year's budget proposed an additional 6% rate increase.

The proposed rate increase will increase the average residential sewer bill by \$4.46 per billing quarter.

PUBLIC WORKS / WATER POLLUTION CONTROL DIVISION  
FISCAL YEAR 2017-2018  
DEPARTMENTAL EXPENDITURE ESTIMATE SUMMARY

**FUND: 118 SEWER OPERATING FUND**

COST CENTER	OBJ	OBJECT CLASSIFICATION	PRIOR YR 6/30/2016	Approved Budget 07/01/16	AMENDED BUDGET 12/31/16	EXPENDED YTD 12/31/16	REVISED ESTIMATE 2016-17	BUDGET REQUEST 2017-18 (5)
3014		SALARIES & BENEFITS (1)	1,876,051	1,946,160	1,946,160	950,163	1,905,152	2,091,703
3014		CONTRACTUAL SERVICES	1,477,542	1,760,400	1,760,400	608,635	1,622,800	1,829,100
3014		MATERIALS & SUPPLIES	378,220	367,600	367,600	167,758	394,900	724,600
3014		CAPITAL OUTLAY Capital Equipment	309,000	485,000	485,000	221,500	Budgeted ↓ 485,000	538,000
3014	520400	OTHER / MISCELLANEOUS Work Comp Fund Contribution (1)	151,000	90,000	90,000		90,000	90,000
3014	552100	Liability Insurance (1)	56,199	60,000	60,000	48,337	60,000	61,500
3014	589000	Contingency (2)	0	200,000	200,000	0	50,000	<b>215,000</b>
3014	589120	Authorized Refunds	0	2,500	2,500	0	2,500	2,500
		Pension Fund Contribution	2,895	5,430	5,430	5,426	5,426	5,430
1183014	591001	TRANS. OUT GENERAL FUND Past Assessments Collections		3,000	3,000	0	3,000	3,000
1183014	591100	TRANS. OUT SPECIAL REVENUE WPC Cap fund contr (3)	966,400	1,166,900	1,166,900	0	1,166,900	<b>813,762</b>
1183014	591300	TRANS. OUT CAPITAL PROJECTS Bonded Project Debt Service	115,275	115,275	115,275	57,638	115,275	115,275
		DEEP CWF Debt Service (4)	356,630	394,630	394,630	197,315	394,630	394,630
<b>TOTAL OPERATING FUND EXPENSE</b>			<b>5,689,212</b>	<b>6,596,895</b>	<b>6,596,895</b>	<b>2,256,772</b>	<b>6,295,583</b>	<b>6,884,500</b>

	FY17 Est.	FY18 Budget
Revenue budget =	6,518,500	6,884,500
Deficit/Surplus =	<b>\$222,917</b>	<b>\$0</b>

- (1) Health Benefits - 8%; Liability Ins 3% pending further guidance from the Comptroller 3.4%
- (2) Additional funds are included in Contingency to account for contractual salary negotiations and to accommodate position succession planning
- (3) The Division overseeing the design and constr. of the mandated Phosphorus treatment system. When the system is brought online at the beginning of FY 17-18 the annual operating costs will increase by an est. \$400,000 for Electricity and Chemical. Labor demands for the new system will require 1 additional staff member at a salary and benefit cost of \$68,000. Repayment of project loans will add \$470,000 to the Division's annual debit service cost in FY 2018-19
- (4) Debt Service payments are paid from annual user fees revenues
- (5) The Proposed budget includes a 6% increase in the proposed Sewer Usage Rate.**

PUBLIC WORKS / WATER POLLUTION CONTROL DIVISION  
**FISCAL YEAR 2017-2018**  
**SERVICES & SUPPLIES - WPC**

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FUND/COST CENTER: 1183014

SEWER OPER FUND

OBJ	OBJECT CLASSIFICATION	PRIOR YR 6/30/2016	Approved Budget 7/1/2016	AMENDED BUDGET 12/31/16	EXPENDED YTD 12/31/16	REVISED ESTIMATE 2016-17	BUDGET REQUEST 2017-18	% Incr FY17 Appr to Req.
531000	PROFESSIONAL FEES & SERVICES (1)	62,576	45,000	45,000	26,244	45,000	65,000	44.4%
531150	WATER DEPT ADM FEES (2)	63,670	67,000	67,000	16,215	67,000	67,000	0.0%
541000	LIGHT & POWER P	<b>522,863</b>	780,000	774,300	231,208	650,000	<b>675,000</b>	-13.5%
541100	WATER & SEWER	11,036	11,500	11,500	4,778	11,500	11,500	0.0%
542120	BYPRODUCT DISP. TIPPING FEES P	467,932	487,000	487,000	166,523	480,000	550,000	12.9%
542140	REFUSE	945	500	500	160	500	500	0.0%
543000	REPAIRS & MAINTENANCE (3)	69,722	80,000	82,056	26,382	80,000	80,000	0.0%
543011	<b>COLL SYSTEM MAINT &amp; REHAB (4)</b>	11,884	70,000	73,600	10,929	<b>70,000</b>	<b>160,000</b>	128.6%
543100	MOTOR VEHICLE SERVICE	9,951	10,000	10,000	5,694	10,000	10,000	0.0%
543110	MAJOR REPAIRS TO EQUIP	228,115	180,000	174,000	106,789	180,000	180,000	0.0%
544400	RENTS & LEASES	1,782	3,500	3,500	1,785	3,500	3,500	0.0%
553000	TELEPHONE	2,644	3,000	3,000	1,107	2,800	2,800	-6.7%
553100	POSTAGE	294	400	400	108	350	400	0.0%
554000	TRAVEL	93	100	100	54	100	100	0.0%
555000	PRINTING & BINDING	96	150	150	37	100	150	0.0%
557700	ADVERTISING	171	800	800	0	500	800	0.0%
581120	CONFERENCE & MEMBERSHIPS	0	150	150	0	150	350	133.3%
581135	SCHOOLING & EDUCATION	3,468	1,800	1,800	758	1,800	2,500	38.9%
581280	LIEN FEES COSTS	12,300	11,000	11,000	3,355	11,000	11,000	0.0%
589100	MISC - Intertown Sewer Agreements (5)	8,003	8,500	8,500	6,509	8,500	8,500	0.0%
		<b>1,477,542</b>	<b>1,760,400</b>	<b>1,754,356</b>	<b>608,635</b>	<b>1,622,800</b>	<b>1,829,100</b>	<b>3.9%</b>
561150	LABORATORY SUPPLIES	12,015	10,500	10,500	5,140	10,500	10,500	0.0%
561400	MAINTENANCE SUPPLIES P (6)	264,385	240,000	240,000	109,276	265,000	595,000	147.9%
561800	PROGRAM SUPPLIES	53,111	55,000	55,000	34,461	56,000	55,000	0.0%
562200	NATURAL GAS (HEATING FUELS) P	23,616	35,000	35,000	4,288	35,000	35,000	0.0%
562600	MOTOR FUELS	16,894	18,000	18,000	7,643	18,000	18,000	0.0%
563000	M.V. PARTS & SUPPLIES	4,957	3,500	3,500	3,219	5,000	5,500	57.1%
563100	TIRES, TUBES, CHAINS	1,917	4,000	4,000	2,776	4,000	4,000	0.0%
569000	OFFICE SUPPLIES	1,324	1,600	1,600	955	1,400	1,600	0.0%
		<b>378,220</b>	<b>367,600</b>	<b>367,600</b>	<b>167,758</b>	<b>394,900</b>	<b>724,600</b>	<b>97.1%</b>
<b>TOTAL SERVICES &amp; SUPPLIES</b>		<b>1,855,762</b>	<b>2,128,000</b>	<b>2,121,956</b>	<b>776,393</b>	<b>2,017,700</b>	<b>2,553,700</b>	<b>20.0%</b>

(1) incl. DEEP Nitrogen credit costs \$10k, Annual DEEP permit fee \$3,000, Police traffic control services and other professional services

(2) Billing services admin fee (\$60,500) plus lien handling fees

(3) Includes contract laboratory services (\$11,000), Generator (\$5,000) and HVAC Maint (\$5,000), Motor and Machine Shop and Welding services Vibration Analysis and generator load testing (\$5,000)

(4) **Account increase to include contract grout sealing operations to supplement the City's program**

(5) Intertown User Fees (Ply \$4,845, Plainville \$3,440)

(6) Treatment and cleaning chemicals, Ultraviolet disinfection system lamps, lubricants, manhole rings - sewer pipe sealing grout and contractual requirement for uniforms

PUBLIC WORKS / WATER POLLUTION CONTROL DIVISION

FISCAL YEAR 2017-2018  
SALARIES ANALYSIS - WPC

FUND/COST CENTER: 1183014-514000

SEWER OPER FUND

ACCT OBJ CODE	PAY CODE	PAY STEP	BARG UNIT	# OF POS	POSITION CLASSIFICATION	ANN. HRS	2016-17 BUDGET	2016-17 EST.	CODE & STEP @ 7/1	RATE ANN/HR 7/1/2017	INCR 7/1/2017 6/30/2018	2017-18 REQUEST
514000	11	6	BPSA	1	ASST. DIR. WPC	S	102,650	104,000	11-4	97,670		97,670
517000					contractual bonus		1,000	1,000				
517000					Vac buy back (1 week)		1,974	1,974				
514000	9	6	BPSA	1	ASST. CHIEF/MAINT AND COLL	S	81,426	86,000				90,484
514000	9	4	BPSA	1	ASST. CHIEF OPERATOR/LAB SUPER	S	71,705	80,763	9-4	80,763	2,315	83,078
					Vac buy back (1 week)		0	0				0
514000	9	3	1338	1	COLL SYS CREW LEADER	2088	54,935	54,935	9-3	26.31		54,935
517000					ADJUST TO HIGHER CODE	160	8,000	8,000				8,000
515100					OVERTIME		15,000	14,000				14,000
<b>TOTAL</b>							<b>336,689</b>	<b>350,672</b>				<b>348,168</b>
514000	6	3	233	1	ADMIN. ASST/ACCT	1,955.4	41,473	41,473	6-3	21.21		41,473
515100					OVERTIME		200	200				200
<b>TOTAL</b>							<b>41,673</b>	<b>41,673</b>				<b>41,673</b>
514000	8	3	1338	1	LAB TECHNICIAN	2088	52,304	52,304	8-3	25.05		52,304
517000					ADJUST TO HIGHER CODE	200	1,000	1,000				1,000
515100					OVERTIME		500	500				500
<b>TOTAL</b>							<b>53,804</b>	<b>53,804</b>				<b>53,804</b>
514000	10	3	1338	1	SENIOR PROCESS OPER.	2088	57,671	57,671	10-3	27.62		57,671
514000	10	3	1338	2	PROCESS OPER - Class 3	2088	115,341	115,341	10-3	27.62		115,341
514000	7	3	1338	5	PROCESS OPER.	2088	248,576	248,576	7-3	23.81		248,576
				1	<b>Transitional Process Operator (P)</b>	2088			6-2	22.17		46,291
515100					OVERTIME		30,500	30,000				30,500
517000					12% NIGHT DIFF		20,000	20,000				20,300
<b>TOTAL</b>							<b>472,088</b>	<b>471,588</b>				<b>518,679</b>
514000	8	3	1338	1	SEWER REHAB & MAINT OPER.	2088	52,304	52,304	8-3	25.05		52,304
517000					ADJUST TO HIGHER CODE	240	2,600	2,600				2,600
514000	7	3	1338	2	TRUCK DRIVERS	2088	99,431	99,431	7-3	23.81		99,431
515100					OVERTIME		4,600	5,000				5,000
<b>TOTAL</b>							<b>158,935</b>	<b>159,335</b>				<b>159,335</b>
514000	10	3	1338	2	ELECTRO-MECH. TECH	2088	115,341	115,341	10-3	27.62		115,341
				1	<b>ELECTRO-MECH. TECH - NEW</b>	2088	0	0	10-2	27.16		56,710
515100					OVERTIME		4,000	4,000				4,000
<b>TOTAL</b>							<b>119,341</b>	<b>119,341</b>				<b>176,051</b>
514000	6	3	1338	3	SEMI-SKILLED CRAFTSMEN	2088	140,877	140,723	6-3	22.49		140,877
514000	5	3	1338	0	LABORER HELPER (Transitional)	2088	0	0	5-3	21.89		0
				1	SKILLED CRAFTSMAN		49,715	49,715	7-3	23.81		49,715
515100					OVERTIME		6,000	6,000				6,000
<b>TOTAL</b>							<b>196,593</b>	<b>196,438</b>				<b>196,593</b>

514000					<b>TOTAL REGULAR WAGES</b>		<b>1,283,750</b>	<b>1,298,578</b>				<b>1,402,203</b>
515100					<b>TOTAL OVERTIME WAGES</b>		<b>60,800</b>	<b>59,700</b>				<b>60,200</b>
517000					<b>TOTAL OTHER WAGES</b>		<b>34,574</b>	<b>34,574</b>				<b>31,900</b>
				25	<b>TOTAL WPC SALARIES</b>		<b>1,379,124</b>	<b>1,392,852</b>				<b>1,494,303</b>
					<b>HEALTH BENEFITS</b>		398,130	406,130				483,086
					<b>FICA DEDUCTIONS</b>		84,135	86,047				92,647
520000					<b>MEDICARE INS</b>		19,675	20,122				21,667

<b>TOTAL SALARY REQUEST</b>							<b>1,881,064</b>	<b>1,905,152</b>				<b>2,091,703</b>
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**Note 1:** Budget includes two new positions, an additional Process Operator and Electro Mechanical Maint Technician

**Note 2:** Salaries do not include contractual rate increase for the 233 or 1338 bargaining units

**Note 3:** Laborer Helper (Temp) will be promoted to Semi-Skilled Craftsman upon certification  
Process Operators will be promoted to Senior Process Operator pay code upon certification

**FISCAL YEAR 2017 - 2018  
Employee Benefits Worksheet**

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<b>HEALTH PLAN:</b>						<b>Antic Incr 0.0%</b>	
# Empl	Provider	SINGLE PLAN	DOUBLE PLAN	FAMILY PLAN	Premium Cost/Yr	Annual Amt. Current Yr	Annual Amt. Budget Yr
<b>HEALTH PLANS</b>							
3	BPSA Med&Dental incl. Dental	(-copay) = 1	14.25%  0	(assumes wellness)  2	8,664.08 18,163.08 23,600.73	8,664 0 47,201	8,664 0 47,201
1	233 Med&Dental	(-copay) =	9.50% 1		19,169.20	19,169	19,169
19	Med - Hospital incl. Dental	(-copay) = 6	9.50%  2	11	9,144.01 19,169.20 24,908.06	54,864 38,338 273,989	54,864 38,338 273,989
<b>2</b>	<b>ElectroMech and Operator (P)</b>		<b>2</b>		<b>19,169.20</b>	<b>38,338</b>	<b>38,338</b>
+ _____ Proposed positions						+ _____	+ _____
<b>25</b>	<b>Funded Division positions insured</b>					<b>480,564</b>	<b>480,564</b>

<b>LIFE INS. &amp; DISABILITY</b>	BPSA	3	\$10.88	<b>392</b>	<b>392</b>
	233 & 1338	22	\$8.08 /mo	<b>2,133</b>	<b>2,133</b>
<b>EMPLOYEE ASSIST. PROGRAM</b>				<b>0</b>	<b>0</b>
(est. \$2,000 to be covered by savings of benefits for temp vacancies)					
<b>FICA DEDUCTIONS</b>	6.20% x payroll		\$1,494,303	<b>92,647</b>	<b>92,647</b>
<b>MEDICARE INS</b>	1.45% x payroll		\$1,494,303	<b>21,667</b>	<b>21,667</b>
7.65% for salaries up to 118,500/yr for individual					

<b>TOTAL EMPLOYEE PAYROLL BENEFITS =</b>				<b>\$597,400</b>	<b>\$597,400</b>
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Assumes a 0% increase in health benefits based on preliminary guidance from Comptroller's Staff

**2017-2018 BUDGET ESTIMATE**

**8**

**PRELIMINARY CAPITAL OUTLAY DETAIL WORKSHEET**

1/9/17 12:00 AM

**FUND: 118**  
**DEPART: 3014**  
**CC:**

QUANTITY	DESCRIPTION	UNIT COST	REQUEST	PROJECT EVALUATION*
1	Replace Generator alternator and control panel at the Broad St pump station	60,000	60,000	A
1	Replace WP- 2 with Pick up Truck (1996 SUV)	25,000	25,000	A
1	Replace control computers at Cross St, Middle St and Boivin St Pump Stations	75,000	75,000	A
1	Replace Pick up truck WP-7 (outfit with crane) (1999 2 ton, 78,700 miles)	70,000	70,000	A
1	Replace sludge aeration blower #1	16,000	16,000	A
1	Middle Str Pump Station - Remove UST and install bypass	60,000	60,000	A
1	Replace riding mower	12,000	12,000	A
1	Replace Generators at Julia Rd	50,000	50,000	A
1	Air Handling and Odor Control Broad St pump station	60,000	60,000	A
1	Replace grit seperator #1	75,000	75,000	A
1	Install Air Relief valve and manhole Ronzo Road	35,000	35,000	A
<b><u>CIP - WPC FACILITY RENOVATIONS</u></b>				
<b>(NOTE: Projects to be fund by WPC Fund, not bonded)</b>				
1	Repair deteriorated concrete in treatment tanks	200,000	CIP	A
1	Manhole rehabilitations and frame replacement	200,000	CIP	A
		<b>400,000</b>		
<b><u>Future Annual Captial Outlay Projects</u></b>				
	Replace 2nd Grit seperator	\$75,000		
	Bypass tap Boivin Str pump station	\$30,000		
	Replace WP-12, 2002 small dump truck	\$85,000		
	Pump replacements	\$50,000		
	Replace WP-3 3/4 ton pickup with plow	\$40,000		
	Repl pump station controls - 3 stations	\$70,000		
	Replace Minor Street PS Generator	\$60,000		
	Belt Filter Press - partition wall	TBD		
		<u>\$410,000</u>		
<b><u>Future 10 Yr CIP Projects</u></b>				
	Renovation to Ivy Drive Pump Station	\$230,000		
<b>CAPITAL OUTLAY REQUEST</b>			<b>\$538,000</b>	

**WPC CAPITAL EXPENDITURE JUSTIFICATIONS FY18****CAPITAL OUTLAY REQUEST****Replace Generator alternator and control panel at Broad Street pump station**

The Broad Street pump station pumps between 3 million to 20 million gallons of waste water every day. It is fitted with two emergency electric generators to power the station's pump in the event of a power outage. The larger of the two generators was installed in 1987. It has required numerous service calls in recent years to maintain the generator in working condition. The control panel components are obsolete and replacement parts are not readily available. The unit no longer provides the dependable operation required for such a critical pieces of equipment. It is the same make and age as the generator at the treatment plant. The treatment plant generator failed three years ago and required an emergency replacement of its electrical components, as well as incurring rental charges for a temporary generator. We are proposing to replace the 575 KW alternator and control panel.

**Replace WP-2 with a standard pick up truck**

WP-2 is a 1996 SUV used for basic transportation. The vehicle is at the end of its useful life. We propose replacing the vehicle with a standard ¼ ton pick up truck. The truck will be used by the road crew, mechanics and operators.

**Control System upgrades Cross St, Middle St and Boivin St Pump Stations**

The Division operates and maintains 16 pump stations throughout the City. Each station is outfitted with a computerized control and alarm system, called a Programmable Logic Controller, or PLC, that operates over a radio telemetry link to the main treatment facility. The computer controls at the oldest station have been in service for over 17 years. The manufacturer stopped production of those PLC over five years ago and the vender that wrote the custom programming retired and closed his business three years ago. The system have function dependably but have become obsolete and the programming cannot readily be modified to accommodate changes at the stations. Under the coming budget we are proposing replacements and upgrades at three stations. We anticipate upgrading two to three stations per year until all the obsolete controls have been replaced.

**Replace Pickup truck, (WP-7 1999)**

WP-7 is a 2 ton pickup with a hydraulic dump bed. The truck is used for transporting heavier items and a portable water tank used in street operations. The Truck is now 17 years old and show significant wear with age. We proposed to replace the truck with a new 2 ton pick up, replacing the hydraulic dump feature with a truck mounted crane.

**Sludge aeration blower replacement**

The WPC Facility was built in 1987, the facility is outfitted with two aeration blowers that are alternated to aerate the sludge holding tanks. The first of the two blower was replaced in FY 14-15, the second blower is now 29 years old and showing signs of wear and limited capacity for the current need. We are proposing to replace the second unit in the coming fiscal year.

**Middle St Pump Station – Remove UST and install bypass tap**

The division's FY 15-16 budget included a project to install a bypass tap in forcemain leaving the station. In the event of a significant station failure the division can connect a trailer mounted pump to the forcemain to maintain sewer flows and prevent a system overflow. Due to site constraints and a conflict with the location of the underground fuel storage tank (UST) the tap was not able to be installed as planned. The City approved the budgeted funds to be used to replace the aging generator at the station and install a new above ground fuel tank under the new generator. That will allow the underground tank to be removed and enable the installation of the desired bypass tap in the forcemain. The division is request that funds be approved to remove the old tank and install the tap.

**Replacement riding mower**

The division maintains a large grass lawn area around the treatment facility. Its old riding mower failed near the end of the previous summer. Repairs to the old unit are cost prohibitive and the require drive train parts are no longer available. We are proposing to replace the old unit.



**Replace generator at Julia Road pump station**

The City's pump station located on Julia Road was installed in 1968 and underwent a significant upgrade in 2006. The electrical generator was not replaced in the last upgrade and is now due for replacement. The generator is obsolete and replacement part are limited if available at all. We propose to replace the generator with a new unit that has a fuel tank built into the base pedestal. This will allow us to eliminate the outside fuel tank and the inside day tank.

**Replace grit separator #1**

The WPCF operates two grit separators, they remove heavy, abrasive grit from the flow entering the plant. The units are showing significant signs of wear and corrosion. We propose to replace the worst of the two unit in the coming fiscal year.

**Air Relief valve Middle Street Pump Station Forcemain**

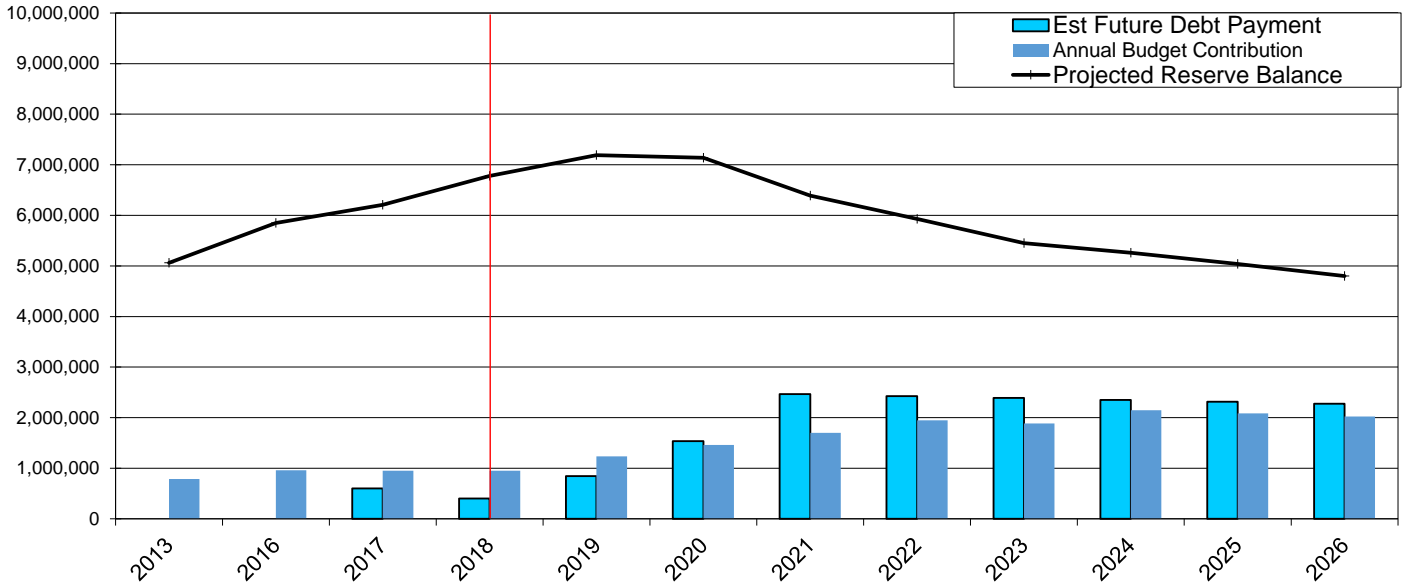
The Middle Street pump station was originally installed in 1978. The station conveys wastewater from the station through a 4,300 foot long that runs along Middle St, Ronzo Road and Emmett Street. The forcemain has an elevation high point on Ronzo Road. Pockets of sewer gases to accumulate at such high points in a forcemain. The gases can become more acidic and accelerate corrosion in the pipe leading to a premature pipe failure. Under normal design standards an air relief valve in a manhole should be installed in such high points to vent gases before they can accumulate. The original pipeline included an air relief valve near Ronzo Road but that section of the pipeline was abandoned when the pipeline was rerouted around the ESPN complex a number of years ago.

1	2	3	4	5	6	7	8
COST CENTER CODE	REVENUE CLASSIFICATION	ACTUAL COLLECT 2015-16	BUDGET 2016-17	MUNIS 1st 5 mos 12/3/2016	REVISED ESTIMATE 2016-17	no incr 2017-2018	FY 18 Budget Request <b>6.0%</b>
080001	410003 ASSESSMENT INTEREST & LIENS	7,547	3,000	10,062	3,000	3,000	3,000
080002	402000 SEWER ASSEM. & ADJ (incl. Spec Connection Fees)		20,000		20,000	20,000	20,000
	442015 SEWER CONNECTION PERMITS	82,453	40,000	39,077	55,000	40,000	40,000
080004	404101 INVESTMENT INCOME		10,000	0	10,000	10,000	10,000
080006	454001 MISC. - OTHER SEWER REVENUES (inter town users)	10,778	8,500	8,214	8,500	8,500	8,500
	ISO-NE Demand Response	11,098	4,000	825	1,000	0	0
	<b>OPERATING REVENUES</b>	<b>111,876</b>	<b>85,500</b>	<b>58,178</b>	<b>97,500</b>	<b>81,500</b>	<b>81,500</b>
080400	<b>SEWER USER FEES:</b>			<b>4 Months only</b>			
	422005 CUSTOMER DUMPING FEES	65,209	60,000	27,752	60,000	60,000	60,000
	422006 COMMERCIAL SEWER USER FEE	1,470,487	1,590,000	545,378	1,570,000	1,570,000	1,664,000
	422007 DOMESTIC SEWER USER FEE	4,009,370	4,293,000	1,423,852	4,250,000	4,250,000	4,505,000
	422008 FACTORY SEWER USER FEE	180,938	207,000	52,188	191,000	191,000	202,000
	422009 PUBLIC SEWER USER FEE	272,372	291,000	117,325	290,000	290,000	307,000
	<b>TOTAL USER FEES (Billed)</b>	<b>5,998,376</b>	<b>6,441,000</b>	<b>2,166,495</b>	<b>6,361,000</b>	<b>6,361,000</b>	<b>6,738,000</b>
080400	<b>OTHER RECEIPTS:</b>						
	480014 PENALTIES - SEWER USAGE	67,246	60,000	23,063	55,000	60,000	60,000
	480013 LIENS - SEWER USAGE	-	5,000	1,220	5,000	5,000	5,000
	<b>TOTAL OTHER RECEIPTS</b>	<b>67,246</b>	<b>65,000</b>	<b>24,283</b>	<b>60,000</b>	<b>65,000</b>	<b>65,000</b>
<b>TOTAL FUND 118 REVENUES</b>		<b>6,177,499</b>	<b>6,591,500</b>	<b>2,248,956</b>	<b>6,518,500</b>	<b>6,507,500</b>	<b>6,884,500</b>

Projected Rev Surplus = -1.11%

A proposed 6% increase is included in the User Rates and Permit Fees

# WPC Total Reserve Balance Vs. Payment Schedule



## CAPITAL PROJECT AND DEBT SERVICE SCHEDULE

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DEEP LOAN TERMS: 20 years  
2%  
CITY BOND TERMS: 17 years  
3.75%

### Santiary Sewer Capacity Upgrades

### Major Upgrades to Treatment Facility

Proj. Total Princ FY	Relief Sewer Frederick to Artisan		Relief Sewer Artisan to Farmington Ave		Replace 100 yr old 24" Mainline-Memorial Boul -WPCF \$4M		San Sewer Replacements	Pump Station Renovations (HVAC, structural, SCADA control system, pumps, bypass connections)		FY 2017-18 CIP Proposal		Phorphorus Red. Upgr DEEP mandate (50% DEEP Funding)		PLANT UPGRADE (Nitrogen treatment) (35 yr old) (Note 2)		ANN. DEBT SERVICE PAYMENT
	princ	Interest	princ	Interest	princ	Interest		princ	Interest	princ	Interest	princ	Int	princ	Int	
2013																0
2016	4,180,000		3,190,000		4,000,000		2,000,000		1,000,000	440,000		15,500,000		12,000,000		0
2017	4,180,000		3,190,000		4,000,000		2,000,000		1,000,000	440,000		7,750,000		9,600,000		600,000
2018							600,000									400,000
2019											400,000					842,500
2020	200,000						200,000		100,000			387,500	155,000			1,537,154
2021	245,882	149,250	187,647	119,625			200,000	100,000	100,000			387,500	139,500	480,000	192,000	2,465,147
2022	245,882	140,029	187,647	112,588	200,000	80,000	200,000	100,000	100,000			387,500	131,750	480,000	182,400	2,427,540
2023	245,882	130,809	187,647	105,551	200,000	76,000	200,000	100,000	100,000			387,500	124,000	480,000	172,800	2,389,932
2024	245,882	121,588	187,647	98,515	200,000	72,000	200,000	100,000	100,000			387,500	116,250	480,000	163,200	2,352,325
2025	245,882	112,368	187,647	91,478	200,000	68,000	200,000	100,000	100,000			387,500	108,500	480,000	153,600	2,314,718
2026	245,882	103,147	187,647	84,441	200,000	64,000	200,000	100,000	100,000			387,500	100,750	480,000	144,000	2,277,110
	245,882	93,926	187,647	77,404	200,000	60,000	200,000	100,000	100,000							17,606,426

**NOTE 1:** The proposed budget includes an annual Contribution to the WPC Capital and Non Recurring Account, or reserve fund. The CNR Account is used to fund the WPC 10 Year CIP projects either by direct funding or bond debit repayment.

**NOTE 2:** Plant Upgrade - the treatment facility was designed for a 20 year life cycle and went into service in 1987 at a cost of \$24 million dollars. Periodic upgrades and unit process renovations have extended the facility's life cycle but we anticipate a major overhaul will eventually be required as DEEP implements and mandates additional treatment standards.

**DEBT PAYMENT SCHEDULE AND TOTAL RESERVE BALANCE**

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566,000 = WPC Capital & Nonrecurring & Interest Funds (est.)  
 Past Spreadsheet for EOY 2016 3,408,250 = Undes Sewer Operating Fund  
 5,850,000 3,970,000 **Undesig & Capital Funds**

17-18 Salary (incl Benefits) = 2,130,000  
 Materials and Service Expenses = 2,476,000

#1 FISCAL YEAR	#2 ANN. DEBT SERVICE PAYMENT + 5 Yr Cap	#3 Annual Budget Contrib	#4 WPC CAP & Undes Funds Balance <b>0.30%</b>	#5 <b>% Rate Increase Required</b>	#6 Ann. Salary Incr (deduct from contrib) 1.50%	#7 Ann. Material Inflation Incr (deduct from contrib) 1.00%	Proj. Usage Revenue
2013		785,000	5,060,000	6.0%			5,185,000
2016	0	960,000	5,850,000	6.0%			6,072,000
2017	600,000	1,200,000	6,210,000	6.0%	32,000	24,800	6,436,300
2018	400,000	950,000	6,780,000	6.0%	32,400	25,000	6,822,500
2019	842,500	1,233,000	7,190,000	5.0%	32,900	25,300	7,163,600
2020	1,537,154	1,461,000	7,140,000	4.0%	33,400	25,500	7,450,100
2021	2,465,147	1,699,000	6,390,000	4.0%	33,900	25,800	7,748,100
2022	2,427,540	1,948,000	5,930,000	4.0%	34,400	26,000	8,058,000
2023	2,389,932	1,887,000	5,450,000		34,900	26,300	8,058,000
2024	2,352,325	2,148,000	5,260,000	4.0%	35,500	26,500	8,380,300
2025	2,314,718	2,085,000	5,040,000		36,000	26,800	8,380,300
2026	2,277,110	2,021,000	4,800,000		36,500	27,100	8,380,300
<b>17,606,426</b>		<b>\$1,531,417 = Average</b>					

Total Operating Reserves should not be allowed to fall below 50% of annual operating budget, approximately \$3,000,000. CNR Fund Balance requirements are based on anticipated major project expenses and are not based on annual operation and maintenance costs.

As represented in column #5, periodic rate increase must be implemented to meet Debt Service Obligations, sustain inflationary operating expenses, and maintain a fiscally responsible funding level for the WPC Capital and Non-recurring Fund as a contingency.

Column #7 indicates the impact of a modest Inflationary cost of materials and services required for operation.