

PROGRAM	Public Works – Pollution Control	DIVISION # 3252
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Program Explanation:

The Pollution Control Division of the Public Works Department is responsible for the collection, treatment, and discharge of wastewater. Activities include wastewater treatment, sludge disposal, laboratory analysis, sewer line and pump station maintenance. Program authorization is in accordance with Town Ordinances No. 50, No. 95, No. 102, and as amended by Ordinances No. 73, No. 70, No. 67, and No. 63; and as authorized under the Rules and Regulations promulgated by the Water Pollution Control Authority pursuant to authority conferred by Chapter 103 of the General Statutes, Revision of 1958, as amended and supplemented.

Budget Change Commentary:

Account 110 (Wages) will increase \$40,193 due to union wage increases and the addition of a new position –Operator I. The increase in staff is necessary to handle a corresponding increase in equipment maintenance work, and sewer line cleaning. The Overtime Account (110) was reduced by \$33,678 because of Plant improvements. Account 320 (Professional) was reduced by \$55,600 resulting from Plant improvements to remove nitrogen thereby reducing the number of nitrogen credits the Town would have to purchase. Account 360 (Utilities) increased due to increase costs for fuel, heating oil, and electricity (\$91,131). Contractor Services (Account 371) for HVAC, building, and equipment maintenance increased by \$46,700 because of the Plant upgrade. The Equipment Repair Account (373) increased by \$10,000 for the required Plant Power Center/MCC breaker and disconnection certification. The increase (\$208,000) in Capital Outlay (Account 442) is for replacement of the existing utility truck/plow and the closed circuit TV inspection equipment and associated truck

Program Objectives and Goals FY 2014:

- Complete Phase II Inflow/Infiltration Study
- Apply for Clean Water Fund Grant to remove/repair sources of inflow/infiltration of water into sewer system
- Clean 45 miles of sewer lines
- Complete Rights-of-Way sewer maintenance survey and prepare an annual budget for vegetation control
- Apply for a Clean Water Fund Planning Grant to complete a Rights-of-Way vegetation control plan

Program Accomplishments FY 2013:

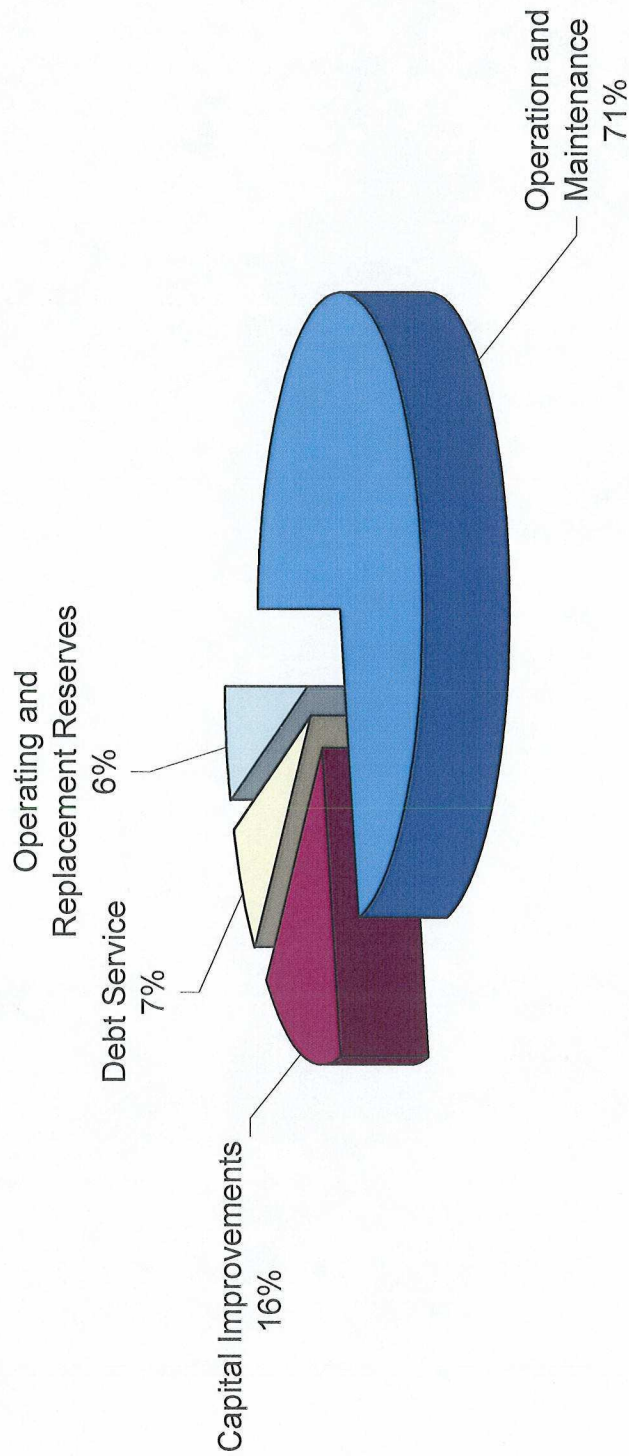
- Completed \$37 million Water Pollution Control Facility Upgrade Project
- Completed program to upgrade eleven pumping stations

- Completed Sewer Improvement Project to replace 1100 feet of corroded concrete pipe, and 80 feet of the Clark Street Pump Station forcemain, and rehabilitate five sewer manholes.
- Completed Phase I Inflow/Infiltration Study to identify sources of extraneous flows into sewer system
- Significantly reduced overtime expenditures (estimated at \$34,000) use the use of a computer alarm monitoring system
- Significant improvements in wastewater treatment to remove nitrogen will likely reduce nitrogen credits (\$60,000) the Town may have to purchase
- Significant improvements in wastewater treatment have achieved a quality of effluent discharge to the Connecticut River that is close to potable water quality standards in terms of turbidity and solids concentrations.

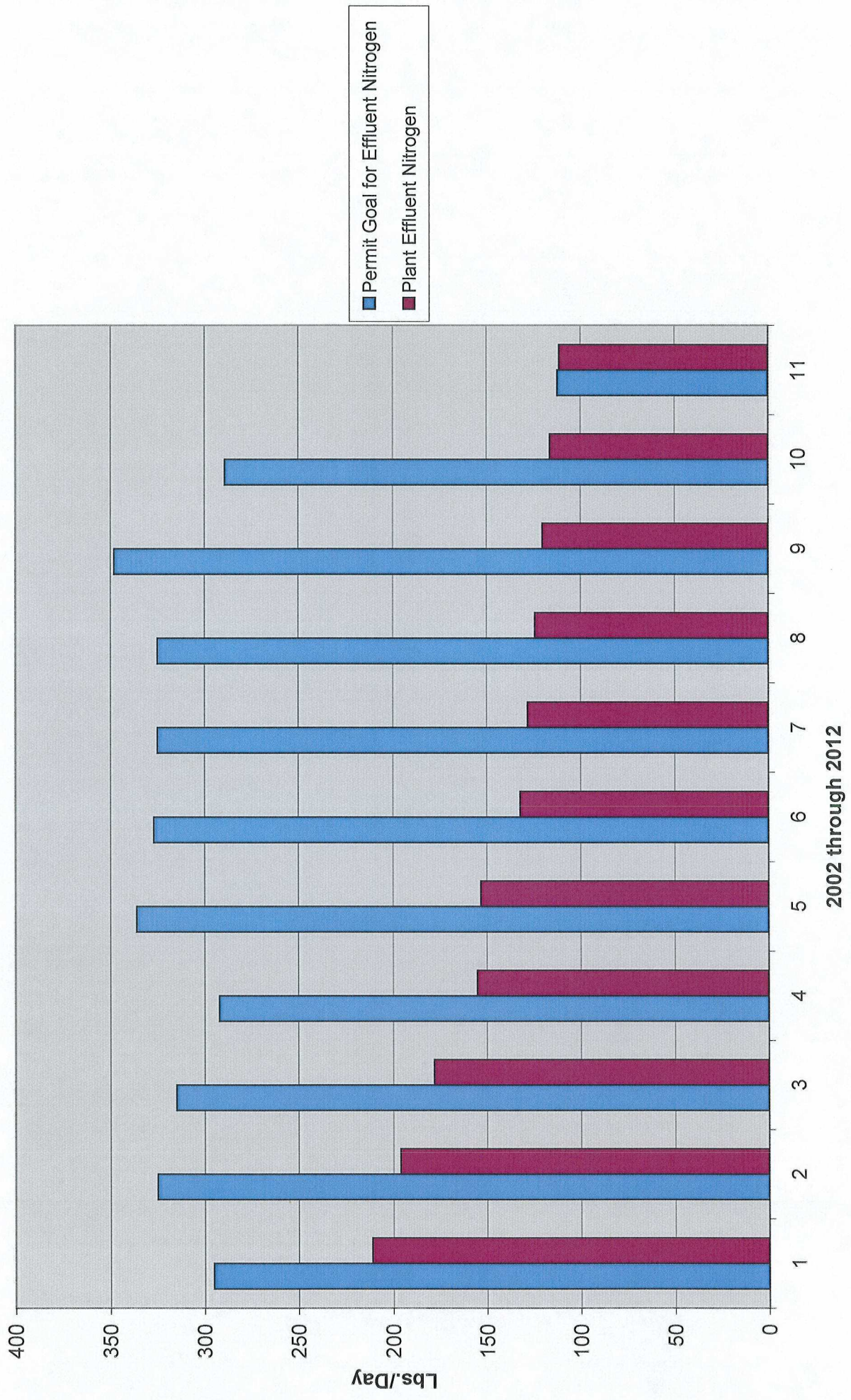
2011-2012		2012-2013		2013-2014	
Positions	FTE	Positions	FTE	Positions	FTE
1	.80	1	.80	1	1.0
1	1.00	1	1.00	1	1.0
1	1.0	1	1.0	1	1.0
1	1.0	1	1.0	1	1.0
1	1.0	1	1.0	1	1.0
4	1.0	4	1.0	4	1.0
2	1.0	2	1.0	3	1.0
1	0.25	1	0.25	1	0.25

Performance Data	Actual 2009-2010	Actual 2010-2011	Actual 2011-2012	Estimated 2012-2013	Anticipated 2013-2014
	Wastewater Treated (million gallons)	701	684	808	800
Average Daily Effluent Suspended Solids (mg/l)	19	19	5	5	5
Average Daily Effluent Biochemical Oxygen Demand (mg/l)	16	12	4	4	4
Average Daily Effluent Total Nitrogen (lbs.)	325	342	277	111	100
Plant Maintenance per Million Gallons of Wastewater Treated (hrs.)	5.26	6.01	6.49	7.90	8.0
Number of Emergency Call-outs or Alarms	58	73	148	110	100
Miles of Sewer Line Cleaned	3.3	1.9	2.8	12	45

Pollution Control Budget FY 2013/2014 Expenditures



Treatment Plant Nitrogen Removal



PUBLIC WORKS DEPARTMENT

FY 2013/2014

PROGRAM: Pollution Control

ACCOUNT NUMBER	EXPLANATION OF ENHANCEMENT/CHANGE	BUDGET IMPACT
002-1337-3252-110	Increase due to union and management wage increases, and request for a new Operator I position	\$40,193
002-1337-3252-111	Decrease in overtime hours due to Plant Upgrade Improvements (SCADA)	(\$33,678)
002-1337-3252-130	.Increase in employee benefits due to increased costs for health insurance and defined benefit pensions	\$
002-1337-3252-320	Reduction in purchase of nitrogen credits due to Plant upgrade	(\$55,600)
002-1337-3252-360	Increase due to increase in fuel/heating oil costs, and electrical use due to Plant upgrade	\$91,131
002-1337-3252-371	Increase costs due to contractor services for HVAC, building maintenance, equipment maintenance due to Plant upgrade	\$46,700
002-1337-3252-373	Increase due to requirement for Plant Power Center/MCC breaker and disconnect certification	\$10,000
002-1337-3252-442	Increase due to replacement of a utility truck/plow, and closed circuit T.V. inspection equipment and associated truck	\$208,000
	Total	\$306,746

**ACTIVITY
PUBLIC WORKS**

**SEWAGE TREATMENT
AND DISPOSAL**

**ACCOUNT NO.
1337-3252**

BUREAU OF POLLUTION CONTROL STATEMENT OF ACTUAL AND ESTIMATED REVENUE:			
<u>Sources of Revenue</u>	<u>Actual 2012/2013</u>	<u>Estimated 2012/2013</u>	<u>Estimated 2013/2014</u>
Sewer User Charges	2,650,001	1,403,969	4,104,535
Industrial/Commercial Declaratory Judgement	0	0	0
Industrial Surcharges	0	0	0
Septic Dumping Fees	3,915	4,145	8,000
Subtotal	2,653,916	1,408,114	4,112,535
Permit Fees	1,500	1,620	3,000
Assessments	0	0	26,000
Interest & Lien Fees	25,810	52,190	75,000
Connection Charges	172,171	13,829	65,000
Grant Reimbursement/Loan	36,725	11,607	58,135
Internal Services	0	23,000	23,000
Investment Interest Earnings	198	208	400
Subtotal	236,404	102,454	250,535
Total	2,890,320	1,510,568	4,363,070
		338,852	
		4,400,882	

EXPENDITURE CLASSIFICATION	2009/2010 ACTUAL	2008/2009 ACTUAL	2010/2011 ACTUAL	2011/2012 ACTUAL	2012/2013 ADOPTED	2013/2014 REQUESTED	MANAGER PROPOSED	COUNCIL APPROVED
PERSONAL SERVICES								
110 Full-time Salaries				\$ 744,597	\$ 771,259	\$ 811,452		
111 Overtime				\$ 126,400	\$ 71,727	\$ 38,049		
112 Longevity				\$ 1,263	\$ 1,820	\$ 1,820		
113 Part Time				\$ -	\$ -	\$ -		
130 Employee Benefits				\$ 468,203	\$ 502,827	\$ 504,477		
SUBTOTAL:	\$ -	\$ -	\$ -	\$ 1,340,463	\$ 1,347,633	\$ 1,355,798	\$ -	\$ -
MATERIALS & EXPENSES								
210 Office Supplies				\$ 728	\$ 1,000	\$ 1,000		
221 Operating Materials				\$ 59,272	\$ 60,000	\$ 64,000		
222 Vehicle & Equip Supp				\$ 23,706	\$ 19,703	\$ 20,990		
223 Uniforms & Clothing				\$ 7,003	\$ 6,450	\$ 7,500		
228 Small Tools								
232 Fleet & Equip Repair				\$ 63,647	\$ 54,150	\$ 48,450		
SUBTOTAL:	\$ -	\$ -	\$ -	\$ 154,356	\$ 141,303	\$ 141,940	\$ -	\$ -
CONTRACTUAL SERVICES								
310 Advertising				\$ -	\$ -	\$ -		
320 Professional				\$ 246,907	\$ 211,388	\$ 155,788		
330 Rentals & Leases				\$ 6,125	\$ 9,120	\$ 17,520		
350 Printing				\$ -	\$ -	\$ -		
360 Utilities				\$ 462,590	\$ 433,569	\$ 524,700		
371 Maintenance Contracts				\$ 136,014	\$ 272,200	\$ 318,900		
373 Repair Maint Equip				\$ 7,107	\$ 10,000	\$ 29,700		
374 Fees & Memberships				\$ -	\$ 1,395	\$ 1,395		
375 Recruitment & Train				\$ 4,164	\$ 4,480	\$ 8,880		

390 Other Purchase Serv	\$	396,597	\$	334,500	\$	300,000
393 Internal Service Cha	\$	<u>37,240</u>	\$	<u>37,240</u>	\$	<u>37,240</u>
SUBTOTAL:	\$	1,296,744	\$	1,313,892	\$	1,394,123

CAPITAL OUTLAY

441 Office Equipment	\$	-	\$	-
442 Department Equipment	\$	-	\$	<u>17,000</u>
SUBTOTAL	\$	-	\$	17,000

DEPARTMENT TOTAL:	\$	2,791,563	\$	2,819,828	\$	3,116,861
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FUNCTION PUBLIC WORKS	FUNCTION PUBLIC WORKS	ACTIVITY	ACCOUNT NO.
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CODE NO. & OBJECT DESCRIPTION	PROGRAM	COST
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200 MATERIALS AND SUPPLIES		\$ 141,940
210 - OFFICE SUPPLIES		\$ 1,000
Paper, pens, fax and printer cartridges		
 221 - OPERATING SUPPLIES		
Description of supply		\$
221.1 Plant Supplies		1,000
221.2 Publications		-
221.3 Shop Supplies		4,000
221.4 Signs		250
221.5 Emergency		1,500
221.6 Custodial Supplies		3,500
221.7 Line Cleaning Supplies		3,500
221.8 Safety Supplies		3,000
221.9 Chemicals		20,000
221.10 Building Supplies		1,750
221.11 Plumbing Supplies		2,000
221.12 Laboratory Supplies		13,000
221.13 Hardware Supplies		3,500
221.14 Sludge Disposal		500
221.15 Lubricants		3,000
221.16 Electrical Supplies		3,500
		\$ 64,000

222 - MOTOR VEHICLE SUPPLIES		\$ 20,990
Assumptions: Gasoline \$3.40 gal., Diesel \$ 3.75 gal		
<u>Equipment No.</u>	<u>Usage (gallons)</u>	
Diesel Generators - Pump Stations	600	\$ 2,250
81SW - 1997 Ford F-250	400	\$ 1,360
82SW - 1995 GMC Cube Van	250	\$ 850
83SW - 2005 F450 Utility Truck	800	\$ 2,720

FUNCTION **FUNCTION** **ACTIVITY** **ACCOUNT NO.**
PUBLIC WORKS **PUBLIC WORKS**

CODE NO. & OBJECT DESCRIPTION	PROGRAM	COST
84SW - 1995 Ford LN9000 Vacuum Truck	300	\$ 1,125
80SW - 2009 Ford Explorer	300	\$ 1,020
86SW - 2008 Combination Truck	1500	\$ 5,625
Pumps/Misc Equipment	100	\$ 340
		\$ 15,290
Repair Parts		
Portable Equipment		\$ 400
81SW - 1997 Ford F-250		\$ 500
82SW - 1995 GMC Cube Van		\$ 500
83SW - 2005 F450 Utility Truck		\$ 600
84SW - 1995 Ford LN9000 Vacuum Truck		\$ 2,000
80SW - 2009 Ford Explorer		\$ 200
86SW - 2008 Combination Truck		\$ 1,500
		\$ 5,700
223 - UNIFORMS		
Uniform rental program - 10 employees		\$ 3,400
Safety Shoes		\$ 1,800
Replacement Clothes		\$ 2,300
		\$ 7,500
232 - EQUIPMENT REPAIR		
Materials for repair & maintenance of Treatment Plant equipment and pump stations:		
Plant Equipment		\$ 11,500
UV System Bulbs		\$ 12,100
UV System Ballasts		\$ 5,350
UV System Miscellaneous Parts		\$ 2,500
Pump Station Equipment		\$ 17,000
		\$ -
		\$ -
		\$ 48,450

FUNCTION **FUNCTION** **ACTIVITY** **ACCOUNT NO.**
PUBLIC WORKS **PUBLIC WORKS**

CODE NO. & OBJECT DESCRIPTION	PROGRAM	COST
300 - CONTRACTUAL SERVICES		
320 - PROFESSIONAL		
SCADA Support		\$ 1,394,123
JobCal Support		\$ 8,500
Rockwell Support		\$ 900
WIMS Support		\$ 2,000
Water Consumption Reports		\$ 2,900
Insurance Premiums		\$ 1,200
NPDES Compliance Testing		\$ 126,788
NPDES Permit		\$ 8,000
Nitrogen Credits		\$ 2,500
Random Drug Testing and Innoculations		\$ 2,000
		\$ 1,000
		\$ 155,788
330 - RENTAL & LEASES		
Cell Phone Services		\$ 15,600
Copier		\$ 1,920
		\$ 17,520
360 - UTILITIES		
360.1 Electricity FY 2012 Estimate		\$ 335,000
Plant and UV System		
<u>Pump Stations</u>		
Avery		\$ 3,900
Barrington		\$ 2,500
Benedict		\$ 29,580
Clark		\$ 43,900
Ellington		\$ 2,900
Pleasant Valley		\$ 9,200
Quarry Brook		\$ 3,100
Route 5		\$ 2,600
Rye		\$ 3,570

FUNCTION PUBLIC WORKS FUNCTION PUBLIC WORKS ACTIVITY ACCOUNT NO.

CODE NO. & OBJECT DESCRIPTION	PROGRAM	COST
	Scantic I	\$ 2,040
	Scantic II	\$ 3,060
		<u>\$ 441,350</u>
360.2 Fuel		\$ 72,450
21000 gallons fuel oil at \$ 3.45 gal.		
360.3 Telephone		\$ 6,000
360.4 Water		
Treatment Plant		
Clark Sreet Pump Station		\$ 4,500
		<u>\$ 400</u>
		<u>\$ 524,700</u>
371 - MAINTENANCE CONTRACTS		
Pest control at treatment plant		\$ 1,200
Container Rental and Trash Collection at the Treatment Plant:		\$ 17,900
Sludge Transportation and Disposal		\$ 228,000
Custodial Building Maintenance at Treatment Plant		\$ 21,000
Analyzer Maintenance		\$ 9,800
HVAC System Maintenance at Treatment Plant		\$ 41,000
		<u>\$ 318,900</u>
373 - REPAIR MAINTENANCE EQUIPMENT		
Service calls		\$ 2,000
Hoist Certification		\$ 3,500
Fire Extinguisher Testing and Certifications		\$ 1,000
Retrieval and Fall Protection Certification		\$ 1,200
Backflow Preventer Certifications		\$ 750
Power Center/MCC Breaker and Disconnect Certification		\$ 17,000
Boiler Certifications		\$ 750
Equipment Calibrations/Certifications		\$ 3,500
		<u>\$ 29,700</u>

FUNCTION **FUNCTION** **ACTIVITY** **ACCOUNT NO.**
PUBLIC WORKS **PUBLIC WORKS**

CODE NO. & OBJECT DESCRIPTION	PROGRAM	COST
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374 - FEES & MEMBERSHIPS

Water Environment Federation	\$	975
Annual Meetings	\$	200
C.W.P.A.A.	\$	220
	\$	<u>1,395</u>

375 - RECRUITMENT & TRAINING

Training materials, technical seminars and conferences	\$	8,000
DEEP Licensing Exams	\$	<u>880</u>
	\$	8,880

390 - OTHER PURCHASE SERVICES

Vernon Sanitary Sewer Service (469 Units)	\$	250,000
MDC Sanitary Sewer Service	\$	12,000
Manchester Sanitary Sewer Service 85 units	\$	<u>38,000</u>
	\$	300,000

393 - INTERNAL SERVICE CHARGE

Sewer billing, collection, and engineering inspections	\$	37,240
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FUNCTION PUBLIC WORKS	FUNCTION PUBLIC WORKS	ACCOUNT NO.
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CODE NO. & DESCRIPTION	PROGRAM	COST
400 - CAPITAL OUTLAY		\$ 225,000.00
430 - CAPITAL PROJECTS		\$ -
		\$ -
		\$ -
441 - OFFICE EQUIPMENT		\$ -
		\$ -
442 - DEPARTMENT EQUIPMENT		\$ 160,000.00
	CCTV Equipment and Truck	\$ 65,000.00
	4 Wheel Drive Utility/Plow Truck	\$ -
		\$ -
		\$ -
		\$ -
		\$ 225,000.00

**ACTIVITY
PUBLIC WORKS**

**SEWAGE TREATMENT
AND DISPOSAL**

**ACCOUNT NO.
1337-3252**

SPECIAL REVENUE POLLUTION CONTROL & WASTEWATER TREATMENT FUND

DEBT SERVICE - PRINCIPAL & INTEREST

TOWN OF VERNON:

Principal
Interest

Subtotal

Department
Request

Manager
Proposed

Council
Approved

21,899
7,093
28,992

State Grant UV System:

Principal
Interest

Subtotal

Pleasant Val. Pump Station Upgrade

Principal
Interest

Subtotal

Submersible Pump Station Upgrade

Principal
Interest

Subtotal

16,749
7,472
24,221

66,309
27,994
94,303

Dry Pit Pump Station Upgrades

Total Debt Service

118,180
313,810

CAPITAL IMPROVEMENTS

TREATMENT SYSTEM:

Subtotal

0

COLLECTION SYSTEM:

Manhole Rehab., I/I Removal (Reserve for Capital Projects) 55,000
Replace Reserve for Plant Debt Service Payments FY 2012/2013 560,000

**ACTIVITY
PUBLIC WORKS**

Reserve for Right-of-Way Maintenance Study
Subtotal

**SEWAGE TREATMENT
AND DISPOSAL**

65,000
680,000

**ACCOUNT NO.
1337-3252**

**ACTIVITY
PUBLIC WORKS**

**SEWAGE TREATMENT
AND DISPOSAL**

**ACCOUNT NO.
1337-3252**

TOTAL CAPITAL IMPROVEMENTS:

680,000

CONTRIBUTIONS TO RESERVE FUNDS

Operating Reserve

180,200

Replacement Reserve

72,199

Total

252,399