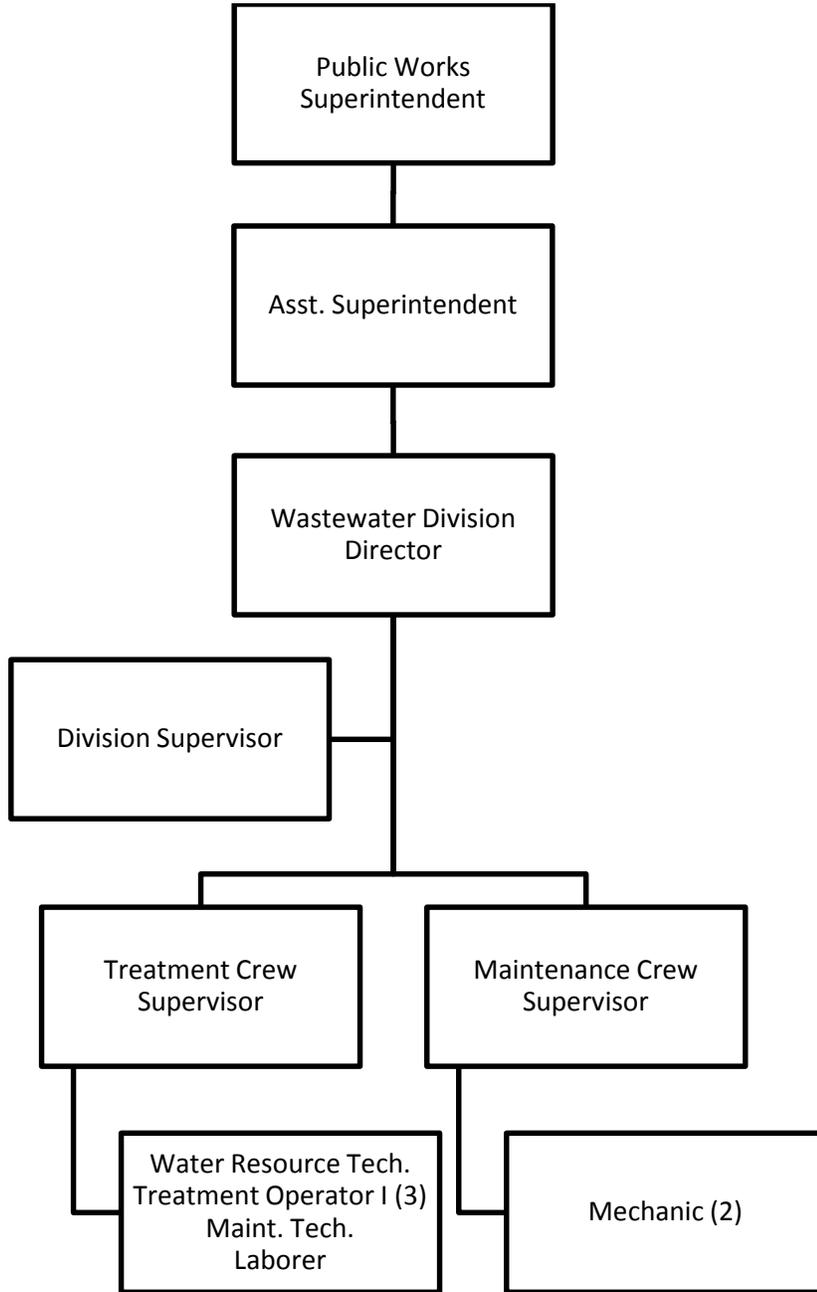


**SEWER
FUND**

SEWER FUND

MISSION STATEMENT: To provide an environmentally safe system for collection, treatment, and disposal of sewage and to do so through a user fee based revenue system.



SEWER FUND SUMMARY

	FY 13 Actual	FY 14 Actual	FY 15 Actual	FY 16 Budget	FY 17 Manager	Change FY 16 - 17	Percent Change
Operating Revenues	\$ 3,855,848	4,011,759	4,045,916	4,191,650	4,130,158	(61,492)	-1.5%
Interest and Late Fees	\$ 26,919	32,556	26,493	20,000	20,000	0	0.0%
Grants	\$ 120,569	0	0	0	0	0	0.0%
SUBTOTAL REVENUES	\$ 4,003,336	4,044,315	4,072,410	4,211,650	4,150,158	(61,492)	-1.5%
Borrowing							
Authorizations	\$ 0	0	0	0	0	0	0.0%
Available Funds	\$ 0	0	0	0	0	0	0.0%
Surplus Funds	\$ 242,668	114,353	0	0	0	0	0.0%
TOTAL RESOURCES	\$ 4,246,004	4,158,668	4,072,410	4,211,650	4,150,158	(61,492)	-1.5%
Operating Budget	\$ 2,912,414	3,003,786	3,045,722	3,221,352	3,197,450	(23,902)	-0.7%
Debt Service	\$ 318,066	430,926	404,304	386,158	378,610	(7,548)	-2.0%
Capital Program	\$ 486,000	255,000	240,000	250,000	240,000	(10,000)	-4.0%
Interfund Transactions	\$ 0	0	0	0	0	0	0.0%
TOTAL APPROPRIATION	\$ 3,716,481	3,689,712	3,690,026	3,857,510	3,816,060	(41,450)	-1.1%
Indirect Costs Appropriated in General Fund	336,333	333,949	348,920	354,140	334,098	(20,042)	-5.7%
TOTAL EXPENDITURES	\$ 4,052,814	4,023,661	4,038,946	4,211,650	4,150,158	(61,492)	-1.5%

SEWER FUND

RESOURCES

GOAL STATEMENT: To provide an adequate amount and proper balance of revenue sources to ensure that the Sewer Fund is completely self-supporting.

LONG RANGE OBJECTIVES:

- To maintain projection models to facilitate rate setting.
- To plan rate increases to meet long term Fund objectives.

FY 17 OBJECTIVES:

- To continue to adequately fund operating and capital needs.
- To develop a more defined policy regarding an appropriate reserve level for Sewer Fund Surplus.

SERVICE LEVELS:

	<u>FY 11</u> <u>Actual</u>	<u>FY 12</u> <u>Actual</u>	<u>FY 13</u> <u>Actual</u>	<u>FY 14</u> <u>Actual</u>	<u>FY 15</u> <u>Actual</u>
Funding Composition (%)					
Operating Revenues	93	93	91	96	99
Interest	1	1	1	1	1
Grants	0	0	0	0	0
Surplus Funds	6	6	5	3	0
Borrowing	0	0	0	0	0

SEWER FUND

RESOURCES

	FY 13 Actual	FY 14 Actual	FY 15 Actual	FY 16 Budget	FY 17 Manager	Change FY 16 - 17	Percent Change
Sewer Rates	\$ 3,647,409	3,726,263	3,904,100	4,048,650	3,987,158	(61,492)	-1.5%
Sewer Liens	\$ 81,644	90,318	54,812	50,000	50,000	0	0.0%
Sewer Entrances	\$ 64,260	112,825	50,254	60,000	60,000	0	0.0%
Septic Disposal	\$ 37,185	32,160	31,815	33,000	33,000	0	0.0%
Sewer Miscellaneous	\$ 25,350	50,193	4,936	0	0	0	0.0%
Sewer Interest and Late Fees	\$ 26,919	32,556	26,493	20,000	20,000	0	0.0%
Sewer Grants	\$ 120,569	0	0	0	0	0	0.0%
	\$ 4,003,336	4,044,315	4,072,410	4,211,650	4,150,158	(61,492)	-1.5%

SIGNIFICANT BUDGET CHANGES:

The overall sewer budget of \$4,150,158 decreases by 1.5%, and sewer rates will remain level. The current sewer rate is \$3.75 per 100 CF. No funds will be appropriated from Sewer Fund Surplus to support this budget. The July 1, 2015 Sewer Fund Free Cash balance was \$2,090,447 (52% of operating revenues – this percent will decrease in coming years). The Town's water/sewer rates remain below state and regional averages.

SEWER FUND**4441: SEWER MAINTENANCE**

GOAL STATEMENT: To maintain sanitary sewers throughout the Town and provide a 24 hour a day response capability for emergency situations.

RECENT ACCOMPLISHMENTS & CURRENT CHALLENGES:

- Completed the Installation of the Harkness Road sewer and pump station.
- Completing the installation of the Amherst Woods Sewer phase I expansion.
- Worked with Conservation Department and Water Division to replace the Beaver Deceiver at Gull Pond. Updated the record information on this piping system in the GIS Sewer mapping information.
- Increased remote monitoring signal strength at Fort River Pump Station.
- Replaced variable frequency drive at Stanley St Pump Station.

LONG RANGE OBJECTIVES:

- To accelerate the repair and replacement of defective and undersized sewer lines throughout the collection system.
- To continue to improve sewer system mapping using the Town's geographic information system (GIS). To add photo references of manholes to GIS.
- To continue the review and updating of Town's sewer bylaws and bring them into agreement with new technology and regulations.
- To update and replace the sewer pumps at Southeast #4 pump station.
- To replace the Mill Valley pump station generator.
- To continue reducing the amount of leakage (infiltration) into the sewer collection system. To continue to modify and update annual sewer flushing schedule.
- To develop equipment operating guidelines that will optimize the cleaning efficiency of sewer flushing truck.
- To incorporate manhole inspections/assessments into flushing schedule.
- To verify locations of cross-country sewer line manholes.

FY 17 OBJECTIVES:

- To finalized the plans and bid the Amherst Woods/Station Road Sewer phase II project.
- To upgrade the air relief valves in the West Street pump station force main. This force main carries all the wastewater from South Amherst to the wastewater treatment facility. Failure of these valves could cause the force main to go down.
- To begin to add the sewer maintenance records to the sewer plans on the Town GIS.
- To begin discussions to upgrade the Sewer camera.

SERVICE LEVELS:

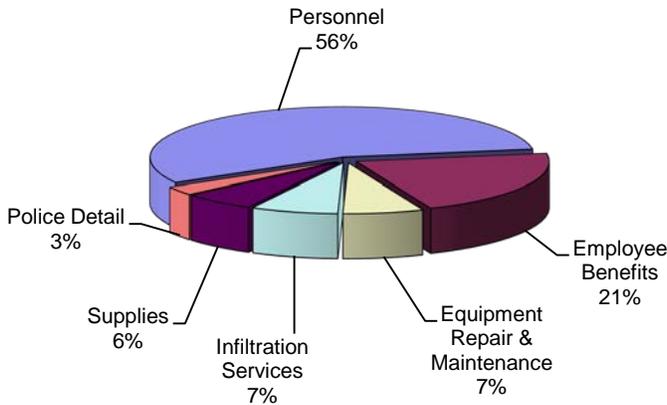
	FY 11	FY 12	FY 13	FY 14	FY 15
	<u>Actual</u>	<u>Actual</u>	<u>Actual</u>	<u>Actual</u>	<u>Actual</u>
Sanitary sewer complaints	79	47	46	42	41
Sewer main stoppages	12	8	4	7	5
Sewer main flushing (miles)	22	25	18	30	35
Sewer mains treated for roots (in linear feet)	5,041	5,597	5,421	5,540	5,500
Sewer maintained (miles)	121	121	121	122	122
T.V.'d sections of problem sewers (in linear feet)	33,927	15,125	12,896	11,042	5,000
Feet of sewer rehabilitated	20	12	1,691	0	0
Feet of sewer replaced	550	0	1,805	7,217	0
Feet of sewer extended	1,120	0	5,500	0	12,000

SEWER FUND

4441: SEWER MAINTENANCE

	FY 13 Actual	FY 14 Actual	FY 15 Actual	FY 16 Budget	FY 17 Manager	Change FY 16 - 17	Percent Change
Personnel Services	\$ 76,623	108,680	109,680	104,641	99,149	(5,492)	-5.2%
Operating Expenses	\$ 87,610	91,246	98,538	81,711	78,583	(3,128)	-3.8%
Capital Outlay	\$ 0	0	0	0	0	0	0.0%
TOTAL APPROPRIATION	\$ 164,233	199,925	208,218	186,352	177,732	(8,620)	-4.6%
SOURCES OF FUNDS							
Sewer Revenues	\$ 164,233	199,925	208,218	186,352	177,732	(8,620)	-4.6%
POSITIONS							
Full Time	2.00	2.00	2.00	2.00	2.00	0.00	
Part Time with Benefits	0.00	0.00	0.00	0.00	0.00	0.00	
Full Time Equivalents	2.00	2.00	2.00	2.00	2.00	0.00	

MAJOR COMPONENTS:



Personnel Services include funds for one maintenance worker and two laborer/truck drivers shared with the Highway budget in the General Fund.

\$37,783 is budgeted for health, retirement, life insurance, and other employee benefits.

Equipment Repair and Maintenance includes funds for renting equipment to pump sewers.

Infiltration Services provide funds for root control and video inspections.

Departmental Supplies provide miscellaneous sewer materials such as pipes, elbows, caps, etc.

Police Detail provides for traffic control.

SIGNIFICANT BUDGET CHANGES:

Personnel Services are in accordance with the current collective bargaining agreement and reflect recent staff turnover. Operating expenses decrease slightly because changes in the health insurance costs because of staff turnover.

SEWER FUND

4440: WASTEWATER TREATMENT PLANT

GOAL STATEMENT: To treat all wastewater discharges to the Connecticut River within Environmental Protection Agency Standards.

RECENT ACCOMPLISHMENTS & CURRENT CHALLENGES:

- Completed the preliminary electrical upgrades to the main electrical panel. This added the aeration controls to the emergency power side of the main electrical panel.
- Upgraded the Wastewater Treatment Plant (WWTP) heating boiler.
- Rebuilt the gear drives on Final Clarifiers #2 and #3.
- Replaced the tank drain on effluent pump #2.
- Rebuilt return activated sludge pump #2.
- Installed a new auger and gear box for the "Auger Monster" grinder pumps.
- Installed new flow measuring devices at the headworks.
- Entered into a Memorandum of Understanding with the University of Massachusetts for a pilot project to conduct research on nitrogen removal in wastewater.
- Met all permit requirements concerning nitrogen restrictions in the waste water treatment facility permit.
- Passed EPA mandated quality control testing for our laboratory.
- The WWTP passed Whole Effluent Testing requirements on the plants final effluent.
- The WWTP laboratory has also incorporated a daily microscopic inspection of the biological process.

Challenges:

- Maximizing nitrogen removal with the current WWTP equipment setup to avoid costly system upgrades.
- The DPW continues to look at the possible additions of reuse water technology, de-nitrification requirements.
- Maintaining equipment that is now 45 years and often hard to find replacement parts.

LONG RANGE OBJECTIVES:

- Continue to provide lab analysis services to UMass to test the Reuse Water it produces on campus for boiler water.
- Replace the 24 inch diameter in line plant water basket strainers.
- Replace or install a backup Gravity Belt Thickener.
- Install flow measuring device on the effluent discharge line.
- Swap the West Street pump station over to a flow matching system.
- To continue the development of capital improvement projects at the main treatment plant and 20 pumping stations.
 - Specifically:
 1. Final clarifier drive upgrades.
 2. WWTP generator upgrades.
 3. Mechanical aerator upgrades.
 4. AC unit upgrades.

FY 17 OBJECTIVES:

- To continue the investigation of water reuse options at the WWTP to replace processes that use potable water.
- Install a second factory rebuilt Channel Monster.
- Replace Pump Station #2's programmable logic controller.
- To continue investigating alternate control strategies to provide stability to the plant's biological process while maintaining effluent quality.
- Seal the elevator shaft from water intrusion.

SEWER FUND**4440: WASTEWATER TREATMENT PLANT**

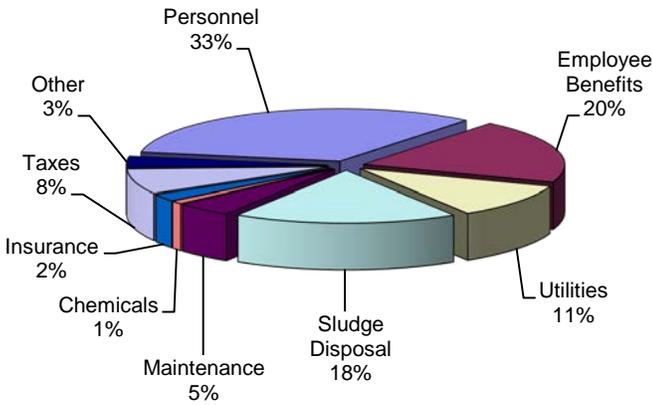
SERVICE LEVELS:	FY 11 <u>Actual</u>	FY 12 <u>Actual</u>	FY 13 <u>Actual</u>	FY 14 <u>Actual</u>	FY 15 <u>Actual</u>
Flow totals (billion gals)	1.45	1.66	1.49	1.41	1.37
Chlorine (lbs)	11,100	9,775	10,570	8,935	9,857
Polymer (lbs)	3,130	3,448	3,068	3,223	3,762
Mass WPC Reports & Federal Reports	12	12	12	12	12
% of tests achieving EPA standards:					
Main Plant	99.9%	99.9%	99.9%	99.9%	99.9%
Pumping stations operated	20	20	20	20	20
Grit & screenings deposited at sanitary landfill (cu.yd)	69	52	55	56	40
Septic waste delivered to plant (loads)	247	308	263	254	209
Gallons of liquid sludge disposed	3,856,100	4,086,000	4,974,300	4,216,300	4,120,884
Tons of dry sludge produced	1,074	1,106	1,034	1,035	1,038

SEWER FUND

4440: WASTEWATER TREATMENT PLANT

	FY 13 Actual	FY 14 Actual	FY 15 Actual	FY 16 Budget	FY 17 Manager	Change FY 16 - 17	Percent Change
Personnel Services	\$ 900,907	875,348	937,889	1,035,762	996,310	(39,452)	-3.8%
Operating Expenses	\$ 1,839,477	1,921,796	1,898,427	1,985,238	2,009,408	24,170	1.2%
Capital Outlay	\$ 7,798	6,716	1,188	14,000	14,000	0	0.0%
TOTAL APPROPRIATION	\$ 2,748,181	2,803,861	2,837,504	3,035,000	3,019,718	(15,282)	-0.5%
SOURCES OF FUNDS							
Sewer Revenues	\$ 2,748,181	2,803,861	2,837,504	3,035,000	3,019,718	(15,282)	-0.5%
Surplus Funds	\$ 0	0	0	0	0	0	0.0%
POSITIONS							
Full Time	15.83	16.33	16.33	16.33	16.33	0.00	
Part Time with Benefits	0.00	0.00	0.00	0.00	0.00	0.00	
Full Time Equivalents	15.83	16.33	16.33	16.48	16.48	0.00	

MAJOR COMPONENTS:



Personnel Services include salaries for the Assistant Superintendent (shared with the Water Fund and the General Fund), a division director, a division supervisor, a supervisor/mechanic, a senior crew supervisor, a Water Resources technician, three treatment operators, two mechanics, a laborer and a maintenance worker. The Town Engineer, the Assistant Town Engineer, a secretary, an administrative analyst, and an engineer technician are shared with the General Fund and the Water Fund. A utility technician, an environmental scientist, a GIS Administrator, a secretary, a division director and an electrician are shared with the Water Fund. Also included is \$36,000 for overtime.

Employee Benefits include \$595,665 for health, retirement, life insurance, OPEB and other employee benefits.

Utilities include \$280,000 for electricity, \$35,000 for fuel, and \$5,200 for water.

Maintenance includes funds for repair of facilities, vehicles, and equipment.

Insurance includes building, vehicle, and liability coverage.

<p>SIGNIFICANT BUDGET CHANGES: Personnel Services decrease due to staff turnover. Operating expenses increase by 1% because of an increase in health benefit costs due to employee plan selection.</p>

SEWER FUND**GENERAL FUND SERVICES**

GOAL STATEMENT: To compensate the General Fund for services provided by various departments.

LONG RANGE OBJECTIVES:**FY 17 OBJECTIVES:**

- To ensure that all costs related to sewer services are identified and appropriately charged through evaluation and modification of the indirect cost model used to assess charges for General Fund administrative support.
- To charge the General Fund for services provided.

SERVICE LEVELS:

	<u>FY 11</u> <u>Actual</u>	<u>FY 12</u> <u>Actual</u>	<u>FY 13</u> <u>Actual</u>	<u>FY 14</u> <u>Actual</u>	<u>FY 15</u> <u>Actual</u>
Number of departments reimbursed	6	6	6	6	6
Percentage of total Fund expenses paid to the General Fund	9	9	8	8	9

SEWER FUND**GENERAL FUND SERVICES**

		FY 13 Actual	FY 14 Actual	FY 15 Actual	FY 16 Budget	FY 17 Manager	Change FY 16 - 17	Percent Change
General Fund Services	\$	336,333	333,949	348,920	354,140	334,098	(20,042)	-5.7%
Transfers to Other Funds	\$	0	0	0	0	0	0	0.0%
TOTAL APPROPRIATION	\$	336,333	333,949	348,920	354,140	334,098	(20,042)	-5.7%
SOURCES OF FUNDS								
Sewer Revenues	\$	336,333	333,949	348,920	354,140	334,098	(20,042)	-5.7%

MAJOR COMPONENTS:

General Fund Services: The General Fund provides services which are used by the Sewer Fund. Transfers are made from the Sewer Fund to the General Fund to compensate for the cost of these services. Additionally, the General Fund uses resources of the Sewer Fund and pays for that use. These payments are netted against amounts owed to the General Fund. Charges for FY 16 are as follows:

Select Board/Town Manager	7% of budget	\$ 30,299
Finance Department	9% of budget	124,357
Human Resources/ Human Rights	7% of budget	16,583
Information Technology	6% of budget	43,070
Public Works Administration	31% of budget	110,514
Equipment Maintenance	10% of budget	34,275
Rental of Garage at Wastewater Treatment Facility		(15,000)
Rental of Equipment for Catch Basin Cleaning		<u>(10,000)</u>
TOTAL		<u>\$ 334,098</u>

SIGNIFICANT BUDGET CHANGES:

The administrative overhead paid to the General Fund decreases in FY 17, because the Sewer Fund no longer pays part of the debt service on repairs to Town Hall. That bond has been paid.

SEWER FUND**DEBT SERVICE**

GOAL STATEMENT: To provide funds for principal and interest payments for temporary and long-term debt.

LONG RANGE OBJECTIVES:**FY 17 OBJECTIVES:**

- To make payments on debt incurred for the Pine Street Project.
- To make payments on debt incurred for the 2012 Harkness Road and Amherst Woods sewer extension projects.

SERVICE LEVELS:

	<u>FY 11</u> <u>Actual</u>	<u>FY 12</u> <u>Actual</u>	<u>FY 13</u> <u>Actual</u>	<u>FY 14</u> <u>Actual</u>	<u>FY 15</u> <u>Actual</u>
Number of issues outstanding	2	2	3	3	3
Number of new issues	0	1	1	1	0

SEWER FUND**DEBT SERVICE**

		FY 13 Actual	FY 14 Actual	FY 15 Actual	FY 16 Budget	FY 17 Manager	Change FY 16 - 17	Percent Change
Principal	\$	308,000	322,400	282,090	267,200	267,200	0	0.0%
Interest	\$	10,066	108,526	122,214	118,958	111,410	(7,548)	-6.3%
TOTAL APPROPRIATION	\$	318,066	430,926	404,304	386,158	378,610	(7,548)	-2.0%
SOURCES OF FUNDS								
Sewer Revenues	\$	318,066	430,926	404,304	386,158	378,610	(7,548)	-2.0%

MAJOR COMPONENTS:	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
Sewer Extension	\$210,400	\$83,392	\$293,792
Pine Street Extension	46,800	26,418	73,218
Sewer Extension, Harkness Design	<u>10,000</u>	<u>1,600</u>	<u>11,600</u>
	<u>\$267,200</u>	<u>\$111,410</u>	<u>\$378,610</u>

SIGNIFICANT BUDGET CHANGES:
None.

SEWER FUND**CAPITAL PROGRAM SUMMARY**

GOAL STATEMENT: To provide for the maintenance and improvement of the Town's sewer system.

LONG RANGE OBJECTIVES:

- To implement a long range Sewer Extension Master Plan consistent with economic development goals of the Town.

FY 17 OBJECTIVES:

- To complete the following:
 - Replacement Vehicle
 - Collection System Improvements
 - To upgrade pumps and generators at several of the waste water pump stations
 - Sewer upgrade to Fisher Street and Harris Streets
 - Shumway Street improvements
 - DPW Facility Improvements
 - Treatment System Improvements
 - Rebuild second grinder pump
 - New effluent pump meter.

SERVICE LEVELS:

	<u>FY 11 Actual</u>	<u>FY 12 Actual</u>	<u>FY 13 Actual</u>	<u>FY 14 Actual</u>	<u>FY 15 Actual</u>
Number of Projects:					
Departmental Equipment	0	1	2	0	2
Existing Facilities	3	3	3	3	3
New Facilities	0	0	0	0	0

SEWER FUND

CAPITAL PROGRAM SUMMARY

	FY 13 Actual	FY 14 Actual	FY 15 Actual	FY 16 Budget	FY 17 Manager	Change FY 16 - 17	Percent Change
Departmental Equip.	\$ 411,000	0	35,000	45,000	35,000	(10,000)	-22.2%
Existing Facilities	\$ 75,000	255,000	205,000	205,000	205,000	0	0.0%
New Facilities	\$ 0	0	0	0		0	0.0%
TOTAL APPROPRIATION	\$ 486,000	255,000	240,000	250,000	240,000	(10,000)	-4.0%
SOURCES OF FUNDS							
Sewer Revenues	\$ 243,332	140,647	240,000	250,000	240,000	(10,000)	-4.0%
Other Available Funds	\$ 0	0	0	0	0	0	0.0%
Surplus Funds	\$ 242,668	114,353	0	0	0	0	0.0%
Borrowing	\$ 0	0	0	0	0	0	0.0%
Grants	\$ 0	0	0	0	0	0	0.0%

MAJOR COMPONENTS:			
	Facilities	\$100,000	WWTP improvements
		\$100,000	Collection System Improvements
		\$5,000	DPW Facility Improvements
	Equipment	\$35,000	Pickup Replacement

SIGNIFICANT BUDGET CHANGES:
Budget reduction is to meet anticipated expenses.