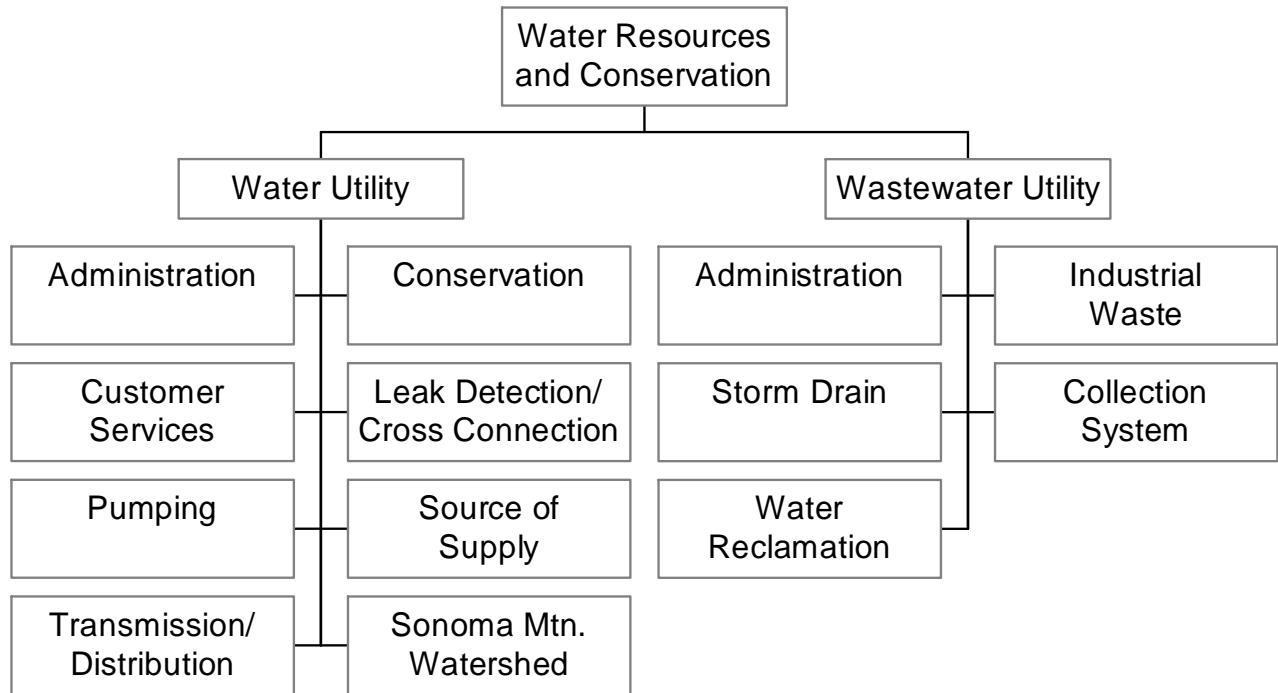


# WATER RESOURCES & CONSERVATION



## **WATER RESOURCES AND CONSERVATION**

The Department of Water Resources and Conservation provides comprehensive and integrated management of Petaluma's water resources. Delivery of a high quality, reliable supply of water, and collection and treatment of wastewater are conducted 24 hours a day, 365 days a year.

Water purchased from the Sonoma County Water Agency is distributed to the City's customers through 9 pump stations and 11 storage tanks/reservoirs. This Department continually monitors and adjusts the pressure and flow of water to meet customer demands.

After the water is used and discharged by the City's customers, it is collected through an underground network of over 200 miles of collection system pipeline. A system of nine collection system pump stations pumps the wastewater to the City's wastewater treatment facility. After receiving secondary treatment, the wastewater is released to the Petaluma River during the winter, and recycled during the summer for irrigation of 800 acres of agricultural land and one golf course. A second golf course will begin receiving recycled water during summer 2006.

Surface water management is achieved through a network of natural creeks, mechanized channels, storm drains and three (3) storm water pump stations which flow to the Petaluma River. During storm events, precipitation and water levels in major creeks are monitored using a computerized system of stream gauges and precipitation instruments.

For operation of the wastewater facilities, the Department administers and maintains four (4) National Pollutant Discharge Elimination System (NPDES) permits (a fifth permit is anticipated in FY 06-07 for operation of the collection system), and three (3) Bay Area Air Quality Management District permits. For the storm water system, the Department administers and maintains three (3) NPDES permits. For the water system, the Department administers and maintains a permit to operate from the California Department of Health Services, a permit from the Division of Dam Safety, and several permits with the Bay Area Air Quality Management District for operation of equipment.

The City's work to stretch water supplies through conservation reached a savings level of approximately 205 acre-feet per year (66 million gallons). This is approximately equivalent to the amount of water used by over 490 homes on an annual basis. Other accomplishments include:

- Completed over 200 water main repairs.
- Cleaned over 200,000 linear-feet of sewer main.
- Produced 600 million gallons of recycled water.
- Cleaned over 2,300 million gallons of wastewater.
- Replaced 145 water services.
- Completed construction of the Water Field Office.
- Completed engineering design of the second Paula Lane Storage Tank.
- Completed engineering design of the C Street Pump Station Upgrade Project.
- Completed engineering design of the North Water Street Sewer Main Replacement Project.
- Began construction of the Ellis Creek Water Recycling Facility Project.
- Procured new recycled water permit from the California Regional Water Quality Control Board.
- Completed removal of 1,300 tons of biosolids from oxidation pond no. 1.
- Prepared and approved ordinance addressing storm water management.

#### MISSION STATEMENT

To provide responsible and creative stewardship of our water resources.

## CHALLENGES FACING DEPARTMENT

The Department faces many new challenges in FY 06-07 that bring with them some unknowns and uncertainties. A few of these are discussed below.

Water Supply: Improving efficiency and stretching the City's water supply will continue to be a challenge for the Department.

Customer Service: As the Department serves approximately 200 to 300 new utility water customers each year, continues to expand maintenance construction projects to replace aging water resources infrastructure, and continues to face water supply issues, it is increasingly important for the Department to provide dedicated, focused and consistent customer service, education and communication.

Proactive Maintenance: The City has seen a substantial increase in the number and severity of maintenance issues associated with its aging water infrastructure. Many of these issues are related to the use of poor or incompatible construction materials used by developments in the 1970s and 1980s. Responding to and curing these issues has diminished the department's ability to conduct necessary preventative maintenance. To address this issue, the City will continue to substantially expand its water main and water service maintenance replacement program.

Storm Water Maintenance: With acceptance of the City's Storm Water Management Plan, the City is now permitted by the Regional Water Quality Control Board to operate and maintain its storm water system. In FY 04-05, the City staffed a dedicated crew for this operation for the first time. Future challenges include working with Sonoma County Water Agency for maintenance of creeks and channels that are funded through the Zone 2A assessment. In recent years, the Agency has been reluctant to conduct necessary maintenance.

Petaluma River: Regular dredging of the Petaluma River by the US Army Corps of Engineers is critical to the community. Continued maintenance and operation of the City's dredge reclamation site, which is surrounded by the Shollenberger Park trail, is critical for future dredging episodes. The FY 06-07 budget includes preparation of a management plan for the dredge reclamation site. The Department will also continue working with local legislators, governmental representatives, and the U.S. Army Corps of Engineers to fund the next dredging cycle, which is scheduled for summer 2007.

Water Recycling Facility: In FY 06-07, the City will make substantial progress on construction of the Ellis Creek Water Recycling Facility. The 36 month construction schedule will require a significant amount of City Staff time.

#### PERFORMANCE MEASURES – FY 05-06

- *Repair all water main breaks*  
Outcome – Repaired all water main breaks, totaling over 200 water main repairs during the fiscal year.
- *Produce and deliver over 1,800 acre feet of recycled water*  
Outcome – Produced and distributed over 1,840 acre feet of recycled water.
- *Procure all necessary permits and begin construction of the Ellis Creek water recycling facility*  
Outcome – Procured all necessary permits and began construction in October 2005.
- *Complete removal of biosolids from oxidation pond no. 1.*  
Outcome – Completed removal of 1,300 tons of biosolids from oxidation pond no. 1 in November 2005.
- *Procure new recycled water permit from California Regional Water Quality Control Board.*  
Outcome – Received new recycled water permit from California Regional Water Quality Control Board in October 2005.
- *Clean over 200,000 feet of sewer main.*  
Outcome – Cleaned approximately 230,000 feet of sewer main.

#### PERFORMANCE MEASURES FY 06-07

- Complete Phase 3 Biosolids Removal Project.
- Achieve substantial progress on construction of the Ellis Creek Water Recycling Facility.
- Assist Sonoma County Water Agency in procuring regulatory permits in support of maintenance of creeks and surface water channels.
- Complete construction of the North Water Street Sewer Main Replacement Project.
- Complete water resources element of the General Plan 2025.
- Prepare and submit Sanitary Sewer Management Plan to California Regional Water Quality Control Board.
- Continue to aggressively invest in maintenance of infrastructure by completing \$1 million in maintenance repairs to the water system.

Water Resources & Conservation

Summary of Expenses, Appropriations, Revenue and Transfers In - All Funds

Department/ Division	FY 2005-06 Funded Positions	FY 2006-07 Funded Positions	FY 2006-07 Total Budget
Administration	5.75	6.00	\$ 3,159,550
Conservation	1.20	1.20	\$ 439,700
Customer Services	3.00	3.00	\$ 377,400
Leak Detect/Cross Conn	0.90	0.90	\$ 84,850
Pumping	0.00	0.00	\$ 16,500
Source of Supply	0.00	0.00	\$ 4,612,550
Transmission/Distributor	13.00	13.00	\$ 2,875,750
Water Cap Projects	0.00	0.15	\$ 2,000,000
Administration	7.15	7.40	\$ 11,519,300
Industrial Waste	0.00	0.00	\$ 279,200
Storm Drain	4.50	4.50	\$ 816,550
Collection System	6.50	6.50	\$ 2,080,400
Water Reclamation	0.00	0.00	\$ 739,850
Customer Service	0.00	0.00	\$ 35,200
Wastewater Cap Project:	<u>0.00</u>	<u>0.15</u>	<u>\$ 83,948,550</u>
<b>Total Positions</b>	<b>42.00</b>	<b>42.80</b>	<b>Total Appropriations <u>\$112,985,350</u></b>
<b>Part Time</b>			
Full Time Equivalent	0.00	0.00	
Part Time Hours	0	0	

Water Resources & Conservation

Budget Comparison to Prior Years

Description	FY 2003-04 Actual	FY 2004-05 Actual	FY 2005-06 Budget	FY 2006-07 Budget	% Change From Budget
Salaries	\$ 2,136,584	\$ 2,363,568	\$ 2,554,550	\$ 3,016,450	18%
Benefits	346,185	819,965	1,026,300	1,125,250	10%
Services/Supplies	3,670,442	4,225,806	9,274,900	8,980,950	-3%
Capital Improvement Projects	12,373,077	9,192,481	41,417,000	85,948,550	108%
Capital Outlay	40,910	1,667,594	103,000	61,750	-40%
Plant Administration	1,600,296	1,377,188	1,950,000	1,110,000	-43%
Purchased Water	4,674,590	4,215,850	4,939,050	4,603,150	-7%
Debt Service Principal	525,000	539,678	570,000	590,000	4%
Debt Service Interest	<u>707,992</u>	<u>114,329</u>	<u>800,300</u>	<u>4,629,400</u>	478%
Sub-Total	26,075,077	24,516,459	62,635,100	110,065,500	76%
Intragovernmental Charges	<u>2,090,800</u>	<u>2,430,955</u>	<u>2,924,700</u>	<u>2,919,850</u>	0%
<b>Totals</b>	<b><u>\$ 28,165,877</u></b>	<b><u>\$ 26,947,414</u></b>	<b><u>\$ 65,559,800</u></b>	<b><u>\$112,985,350</u></b>	<b>72%</b>

Water Utility

Summary of Expenses, Appropriations, Revenue and Transfers In - Water Utility

Department/ Division	FY 2005-06 Funded Positions	FY 2006-07 Funded Positions	FY 2006-07 Total Budget
Administration	5.75	6.00	\$ 3,159,550
Conservation	1.20	1.20	\$ 439,700
Customer Services	3.00	3.00	\$ 377,400
Leak Detect/Cross Conn	0.90	0.90	\$ 84,850
Pumping	0.00	0.00	\$ 16,500
Source of Supply	0.00	0.00	\$ 4,612,550
Transmission/Distributior	13.00	13.00	\$ 2,875,750
Water Capital Projects	<u>0.00</u>	<u>0.15</u>	<u>\$ 2,000,000</u>
<b>Total Positions</b>	<b>23.85</b>	<b>24.25</b>	<b>Total Appropriations <u>\$ 13,566,300</u></b>
<b>Part Time</b>			
Full Time Equivalent	0.00	0.00	
Part Time Hours	0	0	

Water Utility

Budget Comparison to Prior Years

<b>Description</b>	FY 2003-04 Actual	FY 2004-05 Actual	FY 2005-06 Budget	FY 2006-07 Budget
Salaries	\$ 1,397,358	\$ 1,338,101	\$ 1,427,700	\$ 1,589,400
Benefits	280,387	500,295	636,200	668,250
Services/Supplies	957,056	1,135,490	2,508,400	2,445,450
Capital Improvement Projects	1,679,307	4,667,470	2,381,000	2,000,000
Capital Outlay	22,008	1,614,877	59,000	47,750
Purchased Water	4,674,590	4,215,850	4,939,050	4,603,150
Debt Service Principal	215,000	219,126	230,000	235,000
Debt Service Interest	<u>465,600</u>	<u>100,795</u>	<u>425,200</u>	<u>416,500</u>
Sub-Total	9,691,307	13,792,004	12,606,550	12,005,500
Intragovernmental Charges	<u>1,222,850</u>	<u>1,483,747</u>	<u>1,705,950</u>	<u>1,560,800</u>
<b>Totals</b>	<b><u>\$ 10,914,157</u></b>	<b><u>\$ 15,275,751</u></b>	<b><u>\$ 14,312,500</u></b>	<b><u>\$ 13,566,300</u></b>

## **WATER ADMINISTRATION**

The Water Administration Division provides general administration, long-range planning, resources management, employee development and project management for the water utility. This division provides funding for general fund administrative overhead, training, risk management, information services, and debt service on the Series 2000 Water Bonds. The water management and supervisory personnel in this division carry licenses from the State of California for water distribution and water treatment.

### **OBJECTIVES**

- Compile and distribute annual water quality and consumer confidence reports to all our customers.
- Compile and distribute monthly and annual reports to the Department of Health Services and the Department of Water Resources.
- Complete negotiations with Sonoma County Water Agency on new Restructured Agreement for Water Supply.

Water Utility Administration

Budget Comparison to Prior Years

Description	FY 2003-04 Actual	FY 2004-05 Actual	FY 2005-06 Budget	FY 2006-07 Budget
Salaries	\$ 482,297	\$ 440,992	\$ 423,900	\$ 504,050
Benefits	14,166	109,614	144,600	165,850
Services/Supplies	313,490	431,428	379,250	258,350
Capital Outlay	12,110	1,614,877	14,000	19,000
Debt Service Principal	215,000	219,126	230,000	235,000
Debt Service Interest	<u>465,600</u>	<u>100,795</u>	<u>425,200</u>	<u>416,500</u>
Sub-Total	1,502,663	2,916,832	1,616,950	1,598,750
Intragovernmental Charges	<u>993,050</u>	<u>1,249,797</u>	<u>1,705,950</u>	<u>1,560,800</u>
<b>Totals</b>	<b>\$ 2,495,713</b>	<b>\$ 4,166,629</b>	<b>\$ 3,322,900</b>	<b>\$ 3,159,550</b>

POSITIONS	FY 2005-06 Funded Positions	FY 2006-07 Funded Positions
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Admin Assistant	0.50	0.50
Associate Civil Engineer	0.75	0.75
City Manager	0.00	0.15
Dir. Of Water Resource/Conserv.	0.50	0.50
Engineering Manager	0.25	0.25
Engineering Tech II	0.50	0.50
Water Resources Specialist	0.00	0.00
Office Asst. I	0.50	0.50
Secretary	0.50	0.50
Senior Eng. Tech	0.50	0.50
Utility Manager	0.75	0.75
Utility Supervisor	1.00	1.00
Water Resources Control Tech	0.00	0.00
Dir. Admin Services	<u>0.00</u>	<u>0.10</u>

**Total Division Positions** **5.75** **6.00**

Full Time Equivalent	0.00	0.00
Part Time Hours	0	0

## **WATER CONSERVATION**

This division provides implementation of various water conservation measures and water demand management designed to improve efficiency to reduce the amount of water used by the customers of Petaluma's potable water system, including implementation of the California Urban Water Conservation Council's best management practices. Community awareness and support for conservation is promoted through a variety of incentive and rebate programs.

### **OBJECTIVES**

- Conduct 200 single-family home audits.
- Conduct 100 multi-family home audits.
- Measure landscape at irrigation only sites and assign water budget.
- Continue rebate program for toilets and washing machines. Convert program for High Efficiency Toilets (HET) only.
- Upgrade City Landscape to be water conserving at several sites.
- Expand Public Outreach Program.
- Complete Water Conservation Plan.

Water Utility

Conservation

Budget Comparison to Prior Years

Description	FY 2003-04 Actual	FY 2004-05 Actual	FY 2005-06 Budget	FY 2006-07 Budget
Salaries	\$ 5,665	\$ 16,527	\$ 77,050	\$ 83,950
Benefits	(1,437)	3,787	26,600	25,750
Services/Supplies	31,755	85,058	237,500	330,000
Capital Outlay	-	-	-	-
Sub-Total	35,983	105,372	341,150	439,700
Intragovernmental Charges	151,050	163,000	-	-
<b>Totals</b>	<b>\$ 187,033</b>	<b>\$ 268,372</b>	<b>\$ 341,150</b>	<b>\$ 439,700</b>

POSITIONS

	FY 2005-06 Funded Positions	FY 2006-07 Funded Positions
Utility Tech	0.10	0.10
Water Conservation Coordinator	1.00	1.00
Engineering Manager	<u>0.10</u>	<u>0.10</u>
<b>Total Division Positions</b>	<b><u>1.20</u></b>	<b><u>1.20</u></b>
Full Time Equivalent	0.00	0.00
Part Time Hours	0	0

## **WATER CUSTOMER SERVICE**

The Customer Service Division answers customer inquiries, questions regarding water billing, reads meters, coordinates and processes field service orders, conducts water turn-ons and shut-offs, and supports the utility billing system. The division also meets customers in the field to review meter and leak issues.

Specifically, this division is responsible for reading and recording the over 19,000 City water meters every 60 days, and for performing minor meter and leak repairs (larger repairs are turned over to the Transmission/Distribution repair crews). This division also works closely with the Administrative Services Department to receive, investigate and resolve customer billing inquiries. Three (3) Customer Service Representatives support this division. Each year the City adds approximately 200 to 300 new water utility customers.

This division funds the utility billing system.

### **OBJECTIVES**

- Provide efficient, accurate, timely and courteous service in a professional manner to the City's water customers.
- Implement a paperless work order system.
- Begin implementation of a phased Automated Meter Reading (AMR) program to improve reading information and support eventual conversion to monthly billing.
- Procure new billing service contract and provide more information on utility bills.

Water Utility

Customer Services

Budget Comparison to Prior Years

Description	FY 2003-04 Actual	FY 2004-05 Actual	FY 2005-06 Budget	FY 2006-07 Budget
Salaries	\$ 173,885	\$ 179,131	\$ 170,050	\$ 179,800
Benefits	46,086	70,165	76,950	79,450
Services/Supplies	117,501	80,862	121,650	104,400
Capital Outlay	<u>695</u>	<u>-</u>	<u>25,000</u>	<u>13,750</u>
Sub-Total	338,166	330,158	393,650	377,400
Intragovernmental Charges	<u>59,700</u>	<u>53,750</u>	<u>-</u>	<u>-</u>
<b>Totals</b>	<b>\$ 397,866</b>	<b>\$ 383,908</b>	<b>\$ 393,650</b>	<b>\$ 377,400</b>
POSITIONS			FY 2005-06 Funded Positions	FY 2006-07 Funded Positions
Water Service Rep			3.00	2.00
Water Service Rep Lead Worker			<u>0.00</u>	<u>1.00</u>
<b>Total Division Positions</b>			<b><u>3.00</u></b>	<b><u>3.00</u></b>
Full Time Equivalent			0.00	0.00
Part Time Hours			0	0

## **WATER LEAK DETECTION/CROSS CONNECTION**

The Water Leak Detection/Cross Connection Division is responsible for preventing outside contamination from entering the City's water system from cross connections (any potential or actual connection between an untreated source of water and the City's potable water system). Cross connection control supports protection of our water system and is a priority since operation of our system must comply with codes for cross connection control established by the California Department of Health Services and the United States Environmental Protection Agency.

### **OBJECTIVES**

- Administer compliance and testing of over 1,600 backflow prevention devices.
- Administer the repair of backflow devices that may fail yearly inspection/test.
- Perform initial testing, inspection and meter sets for all commercial, irrigation and fire services.
- Administer certification and listing of City approved device testers.

Water Utility

Leak Detect/Cross Connect

Budget Comparison to Prior Years

Description	FY 2003-04 Actual	FY 2004-05 Actual	FY 2005-06 Budget	FY 2006-07 Budget
Salaries	\$ 50,983	\$ 53,509	\$ 56,700	\$ 59,950
Benefits	14,081	20,315	17,950	18,600
Services/Supplies	7,801	1,997	5,850	6,300
Capital Outlay	-	-	-	-
Sub-Total	72,866	75,821	80,500	84,850
Intragovernmental Charges	50	50	-	-
<b>Totals</b>	<b>\$ 72,916</b>	<b>\$ 75,871</b>	<b>\$ 80,500</b>	<b>\$ 84,850</b>

POSITIONS

	FY 2005-06 Funded Positions	FY 2006-07 Funded Positions
Utility Tech	<u>0.90</u>	<u>0.90</u>
<b>Total Division Positions</b>	<b><u>0.90</u></b>	<b><u>0.90</u></b>
Full Time Equivalent	0.00	0.00
Part Time Hours	0	0

## WATER PUMPING

The Water Pumping Division is responsible for the proper operation and maintenance of the City's inventory of 17 wells and related equipment. Personnel take water quality samples and make changes to the treatment equipment to insure the water meets all regulatory standards.

### OBJECTIVES

- Make any necessary repairs to pumps and/or motors.
- Increase frequency of water distribution facilities surveys and upgrade security locks at all sites.

Water Utility Pumping

#### Budget Comparison to Prior Years

Description	FY 2003-04 Actual	FY 2004-05 Actual	FY 2005-06 Budget	FY 2006-07 Budget
Salaries	\$ -	\$ 659	\$ -	\$ -
Benefits	-	72	-	-
Services/Supplies	20,944	19,808	16,700	16,500
Capital Outlay	-	-	-	-
Sub-Total	20,944	20,539	16,700	16,500
Intragovernmental Charges	600	550	-	-
<b>Totals</b>	<b>\$ 21,544</b>	<b>\$ 21,089</b>	<b>\$ 16,700</b>	<b>\$ 16,500</b>

## WATER SOURCE OF SUPPLY

The Water Source of Supply Division includes the purchase of water from the Sonoma County Water Agency. This year's budget anticipates purchasing approximately 10,200 acre-feet.

### OBJECTIVES

- Purchase approximately 10,200 acre-feet of water from the Sonoma County Water Agency.

Water Utility Source of Supply

Budget Comparison to Prior Years

Description	FY 2003-04 Actual	FY 2004-05 Actual	FY 2005-06 Budget	FY 2006-07 Budget
Salaries	\$ 14,450	\$ 107	\$ -	\$ -
Benefits	172	33	-	-
Services/Supplies	14,340	11,107	11,550	9,400
Capital Outlay	-	-	-	-
Purchased Water	<u>4,674,590</u>	<u>4,215,850</u>	<u>4,939,050</u>	<u>4,603,150</u>
Sub-Total	4,703,552	4,227,097	4,950,600	4,612,550
Intragovernmental Charges	<u>16,800</u>	<u>15,150</u>	-	-
<b>Totals</b>	<b>\$ 4,720,352</b>	<b>\$ 4,242,247</b>	<b>\$ 4,950,600</b>	<b>\$ 4,612,550</b>

POSITIONS	FY 2005-06 Funded Positions	FY 2006-07 Funded Positions
<b>Total Division Positions</b>	<b><u>0.00</u></b>	<b><u>0.00</u></b>
Full Time Equivalent	0.00	0.00
Part Time Hours	0	0

## **WATER TRANSMISSION/DISTRIBUTION**

The Water Transmission/Distribution Division is responsible for operation, maintenance and repair of over 232 miles of transmission and distribution pipeline, nine (9) booster pump stations, eleven (11) storage reservoirs (capacity totaling 13.1 million gallons), 19,300 services with meters, and over 7,000 valves and various apparatuses which direct water from the sources to the City's consumers. Aging and deteriorated water mains and services are replaced to improve fire flows and overall system efficiency. Operations personnel in this division are licensed by the State of California. Personnel assigned to this Division monitor and adjust pressure and flows into the system on a daily basis to match consumer demands and also maintain system storage levels necessary for peaking and fire flows. They also maintain and test all the equipment necessary for the connections with the Sonoma County Water Agency's aqueduct.

### **OBJECTIVES**

- Respond to all emergency water main and service breaks.
- Change and replace approximately 200 water meters as part of annual water meter replacement program.
- Continue performing valve control on the systems gate valves.
- Complete annual maintenance of all City owned fire hydrants.
- Initiate automatic meter installation program.
- Complete \$1 million in replacement of deteriorated and worn water mains.
- Complete laboratory analysis of 780 water samples to confirm water quality.

Water Utility

Transmission/Distribution

Budget Comparison to Prior Years

Description	FY 2003-04 Actual	FY 2004-05 Actual	FY 2005-06 Budget	FY 2006-07 Budget
Salaries	\$ 670,079	\$ 647,176	\$ 700,000	\$ 761,650
Benefits	207,320	296,309	370,100	378,600
Services/Supplies	451,225	500,761	1,732,900	1,720,500
Capital Outlay	<u>9,203</u>	<u>-</u>	<u>20,000</u>	<u>15,000</u>
Sub-Total	1,337,827	1,444,246	2,823,000	2,875,750
Intragovernmental Charges	<u>1,550</u>	<u>1,400</u>	<u>-</u>	<u>-</u>
<b>Totals</b>	<b>\$ 1,339,377</b>	<b>\$ 1,445,646</b>	<b>\$ 2,823,000</b>	<b>\$ 2,875,750</b>

POSITIONS

	FY 2005-06 Funded Positions	FY 2006-07 Funded Positions
Utility Service Lead Worker	2.00	2.00
Utility Service Worker II	6.00	6.00
Utility Tech	1.00	1.00
Utility Systems Operator II	1.00	1.00
Utility Service Worker	1.00	1.00
Electrical Maint Worker II	1.00	1.00
Engineering Tech II	0.00	0.00
Senior Eng. Tech	<u>1.00</u>	<u>1.00</u>
<b>Total Division Positions</b>	<b><u>13.00</u></b>	<b><u>13.00</u></b>
Full Time Equivalent	0.00	0.00
Part Time Hours	0	0

## SONOMA MOUNTAIN WATERSHED

The Sonoma Mountain Watershed Division provides maintenance of roads and fences associated with Lafferty Ranch and Lawler Reservoir.

### OBJECTIVES

- Maintain roads and fences associated with Lafferty Ranch and Lawler Reservoir as necessary.

Water Utility

Sonoma Mtn. Watershed

Budget Comparison to Prior Years

Description	FY 2003-04 Actual	FY 2004-05 Actual	FY 2005-06 Budget	FY 2006-07 Budget
Salaries	\$ -	\$ -	\$ -	\$ -
Benefits	-	-	-	-
Services/Supplies	-	4,469	3,000	-
Capital Outlay	-	-	-	-
Sub-Total	-	4,469	3,000	-
Intragovernmental Charges	50	50	-	-
<b>Totals</b>	<b>\$ 50</b>	<b>\$ 4,519</b>	<b>\$ 3,000</b>	<b>\$ -</b>



City staff checking pressure on a large water valve.

Wastewater Utility

Summary of Expenses, Appropriations, Revenue and Transfers In

Department/ Division	FY 2005-06 Funded Positions	FY 2006-07 Funded Positions	FY 2006-07 Total Budget
Administration	7.15	7.40	\$ 11,519,300
Industrial Waste	0.00	0.00	\$ 279,200
Storm Drain	4.50	4.50	\$ 816,550
Collection System	6.50	6.50	\$ 2,080,400
Water Reclamation	0.00	0.00	\$ 739,850
Customer Service	0.00	0.00	\$ 35,200
Wastewater Cap Project:	<u>0.00</u>	<u>0.15</u>	<u>\$ 83,948,550</u>
<b>Total Positions</b>	<b>18.15</b>	<b>18.55</b>	<b>Total Appropriations \$ 99,419,050</b>
<b>Part Time</b>			
Full Time Equivalent	0.00	0.00	
Part Time Hours	0	0	

Wastewater Utility

Budget Comparison to Prior Years

<b>Description</b>	FY 2003-04 Actual	FY 2004-05 Actual	FY 2005-06 Budget	FY 2006-07 Budget
Salaries	\$ 739,226	\$ 1,025,467	\$ 1,126,850	\$ 1,427,050
Benefits	65,798	319,670	390,100	457,000
Services/Supplies	2,713,386	3,090,316	6,766,500	6,535,500
Capital Improvement Projects	10,693,770	4,525,011	39,036,000	83,948,550
Capital Outlay	18,902	52,717	44,000	14,000
Plant Administration	1,600,296	1,377,188	1,950,000	1,110,000
Debt Service Principal	310,000	320,552	340,000	355,000
Debt Service Interest	<u>242,392</u>	<u>13,534</u>	<u>375,100</u>	<u>4,212,900</u>
Sub-Total	16,383,770	10,724,455	50,028,550	98,060,000
Intragovernmental Charges	<u>867,950</u>	<u>947,208</u>	<u>1,218,750</u>	<u>1,359,050</u>
<b>Totals</b>	<b><u>\$ 17,251,720</u></b>	<b><u>\$ 11,671,663</u></b>	<b><u>\$ 51,247,300</u></b>	<b><u>\$ 99,419,050</u></b>

## **WASTEWATER ADMINISTRATION**

Petaluma's wastewater utility provides 24-hour collection, treatment, disposal and reuse of domestic, commercial and industrial wastewater generated by Petaluma and the unincorporated Sonoma County community of Penngrove. Secondary treatment of the wastewater is divided between the wastewater treatment plant at 950 Hopper Street and the oxidation ponds at 4400 Lakeville Highway. The City contracts with Veolia Water North America (formerly US Filter) to operate and maintain the wastewater treatment plant at 950 Hopper Street and the oxidation ponds, the City's water recycling system, and the industrial pretreatment program.

The wastewater treatment facility has an average dry weather design capacity of 5.2 million gallons per day (mgd), and currently treats an average dry weather flow of 4.9 mgd. A staff of seven operators and three maintenance personnel support operation and maintenance of the wastewater treatment facility and the collection system pump stations. Plant operators are certified by the State of California for wastewater treatment plant operation.

Operation of the wastewater utility is supported by charges to residential, commercial and industrial users, and from connection fees. The Finance Department manages the bimonthly utility billing and fee collection. This division provides funding for general fund administrative overhead, risk management, and information services, and serves the debt on the Series 2000 Wastewater Revenue bonds.

The Regional Water Quality Control Board (RWQCB) regulates operation and maintenance of the City's wastewater treatment facility through the City's National Pollutant Discharge Elimination System (NPDES) permit. To monitor the quality of the treated wastewater, it is analyzed for the presence of over 100 chemical constituents. The City regularly informs the Regional Board on the facility through preparation and submittal of monthly monitoring reports.

### **OBJECTIVES**

- Clean over 2,000 million gallons of wastewater.
- Obtain commitment from State Water Resources Control Board for State Revolving Fund for construction of the Ellis Creek Water Recycling Facility.
- Prepare and submit Annual Self-Monitoring Report to Regional Water Quality Control Board.
- Prepare and submit monthly self-monitoring reports to RWQCB.
- Complete maintenance removal and disposal/reuse of biosolids in the aerated lagoon (Phase 3 Biosolids Removal) to improve treatment performance.

Wastewater Utility

Administration

Budget Comparison to Prior Years

Description	FY 2003-04 Actual	FY 2004-05 Actual	FY 2005-06 Budget	FY 2006-07 Budget
Salaries	\$ 393,385	\$ 431,961	\$ 443,050	\$ 684,200
Benefits	222	100,478	106,200	161,000
Services/Supplies	1,092,983	1,594,412	3,703,150	3,628,150
Capital Outlay	12,110	52,717	24,000	9,000
Plant Administration	1,600,296	1,377,188	1,950,000	1,110,000
Debt Service Principal	310,000	320,552	340,000	355,000
Debt Service Interest	<u>242,392</u>	<u>13,534</u>	<u>375,100</u>	<u>4,212,900</u>
Sub-Total	3,651,388	3,890,842	6,941,500	10,160,250
Intragovernmental Charges	<u>857,800</u>	<u>937,908</u>	<u>1,218,750</u>	<u>1,359,050</u>
<b>Totals</b>	<b>\$ 4,509,188</b>	<b>\$ 4,828,750</b>	<b>\$ 8,160,250</b>	<b>\$ 11,519,300</b>

POSITIONS

	FY 2005-06 Funded Positions	FY 2006-07 Funded Positions
Dir. Of Water Resources/Conserv.	0.50	0.50
City Manager	0.00	0.15
Secretary	0.50	0.50
Admin Assistant	0.50	0.50
Associate Civil Engineer	0.75	0.75
Engineering Tech II	0.50	0.50
Senior Eng. Tech	0.50	0.50
Utility Manager	0.25	0.25
Engineering Manager	1.15	1.15
Office Asst. II	0.50	0.50
Water Resources Specialist	1.00	1.00
Water Rescourses Control Tech	1.00	1.00
Dir. Admin Services	<u>0.00</u>	<u>0.10</u>
<b>Total Division Positions</b>	<b><u>7.15</u></b>	<b><u>7.40</u></b>
Full Time Equivalent	0.00	0.00
Part Time Hours	0	0

## **WASTEWATER INDUSTRIAL WASTE**

The Wastewater Industrial Waste Division's primary objective is the continued development and implementation of programs that reduce pollutants discharged to the City's sanitary collection system from the service area, therefore maximizing treatment efficiency and minimizing costs. These programs include Industrial Pretreatment Program (IPP) and the Pollution Prevention Program (PPP). The IPP includes issuance of discharge permits to local industries and discharges to the Petaluma wastewater treatment plant; monitoring, inspection and reporting on local industries and dischargers; and preparation of reports for submittal to the Regional Water Quality Control Board. The PPP focuses on the promotion of a pollution prevention and control ethic by providing information and education pertaining to household wastes, wastewater treatment and water pollution control measures to the community and local industry.

This Department also coordinates wastewater monitoring and sampling, performs a variety of wastewater analyses following testing procedures in accordance with the Code of Federal Regulations for wastewater, provides reports for both internal and external use.

Through Veolia Water, an Industrial Waste Technician and a Compliance Supervisor support this program under the management and direction of the City's Engineering Manager.

### **OBJECTIVES**

- Inspect and/or sample local industries over 100 times during the year.
- Prepare and submit the Semi-Annual and Annual Pretreatment and Pollution Prevent Reports to the California Regional Water Quality Control Board.
- Renew laboratory certification.
- Update the sewer use ordinance.

Wastewater Utility

Industrial Waste

Budget Comparison to Prior Years

Description	FY 2003-04 Actual	FY 2004-05 Actual	FY 2005-06 Budget	FY 2006-07 Budget
Salaries	\$ -	\$ -	\$ -	\$ -
Benefits	-	-	-	-
Services/Supplies	199,625	220,261	256,700	279,200
Capital Outlay	-	-	-	-
Sub-Total	199,625	220,261	256,700	279,200
Intragovernmental Charges	750	700	-	-
<b>Totals</b>	<b>\$ 200,375</b>	<b>\$ 220,961</b>	<b>\$ 256,700</b>	<b>\$ 279,200</b>

## **WASTEWATER STORM DRAINS**

This Division's duties are the clearing/cleaning and maintenance of the storm water drainage system, which is a complex system of approximately 780 storm drain catch basins and related pipeline, culverts and open channels (ditches). A properly maintained storm water system benefits the wastewater utility by preventing storm water from entering the sewer collection system. Included in the storm drain Division is maintenance and operation of the City's flood alert system, and storm water pump stations located at Payran and Vallejo streets. The system consists of rain sensors located within the Petaluma river watershed area and stations along the river that monitor the rivers water level, along its course through the City. Because of increasing infrastructure maintenance needs and regulatory requirements of the Phase II storm water rule, the scope of this program will increase.

FY 06-07 will be the fourth year of our first five-year permit. We will continue our public education and outreach activities by implementing a creek signage program to promote public awareness and proximity of our local creeks. We will also develop educational materials for distribution at the marina and airport to inform the boating and flying communities of the appropriate BMP's to reduce/eliminate surface water pollutants at these facilities. We also plan to ramp up our student education activities to promote awareness of potential sources of pollutants and instill good stewardship of our surface water resources. In the public involvement/participation element, we will begin development of a monitoring program using volunteers to collect data regarding water quality. This program will be instrumental in documenting the effectiveness of our storm water management plan into the second permit cycle. In the illicit discharge detection and elimination element, we will implement our enforcement response plan to ensure compliance with the storm water ordinance adopted last year.

### **OBJECTIVES**

- Continue dedicated, proactive maintenance of the storm water system.
- Submit Storm Water Management Program annual report to the California Regional Water Quality Control Board.
- Complete construction of the Industrial Lead Railroad project.
- Continue implementing the public education and outreach plan for the Storm Water Management Program.
- Continue training City employees on various elements of the Storm Water Management Program, including: Illicit Discharge Detection and Elimination, Construction Site Storm Water Runoff Controls, and Pollution Prevention for Municipal Operations.
- Work to obtain regulatory permits in support of SCWA's maintenance of creeks and channels.

Wastewater Utility

Storm Drain

Budget Comparison to Prior Years

Description	FY 2003-04 Actual	FY 2004-05 Actual	FY 2005-06 Budget	FY 2006-07 Budget
Salaries	\$ 34,084	\$ 247,983	\$ 272,750	\$ 342,200
Benefits	18,296	100,023	100,600	134,350
Services/Supplies	167,662	117,083	336,300	335,000
Capital Outlay	<u>6,792</u>	<u>-</u>	<u>-</u>	<u>5,000</u>
Sub-Total	226,834	465,089	709,650	816,550
Intragovernmental Charges	<u>1,750</u>	<u>1,600</u>	<u>-</u>	<u>-</u>
<b>Totals</b>	<b>\$ 228,584</b>	<b>\$ 466,689</b>	<b>\$ 709,650</b>	<b>\$ 816,550</b>

POSITIONS

	FY 2005-06 Funded Positions	FY 2006-07 Funded Positions
Associate Civil Engineer	0.50	0.50
Engineering Manager	0.50	0.50
Utility Supervisor	0.50	0.50
Utility Service Worker II	2.00	2.00
Utility Service Lead Worker	<u>1.00</u>	<u>1.00</u>
<b>Total Division Positions</b>	<b><u>4.50</u></b>	<b><u>4.50</u></b>
Full Time Equivalent	0.00	0.00
Part Time Hours	0	0

## **WASTEWATER COLLECTION SYSTEM**

The wastewater collection system is the underground piping system that transports raw wastewater from businesses and residences to the treatment plant. Personnel assigned from the Water Resources and Conservation Department maintains this system. The system consists of more than 200 miles of sewer collection lines. Through a continuous inspection program, problem areas are discovered using two (2) remote control TV cameras that are inserted through the pipeline mains, and repairs or cleaning is then initiated. Cleaning is done with the use of high pressure water jet vacuum trucks. Personnel in this Division also reconstruct existing lines and install new manholes on existing lines. As with the water system, weekend emergencies are handled by Division personnel on a standby basis.

### **OBJECTIVES**

- Continue inspection and condition assessment of collection system.
- Begin construction of the of C Street Pump Station Upgrade project, pending procurement of State Revolving Fund loan.
- Complete construction of the North Water Street Sewer Project..
- Submit Sanitary Sewer Management Plan to California Regional Water Quality Control Board.
- Clean over 200,000 feet of sewer pipeline.
- Invest in infrastructure by completing over \$500,000 in maintenance repairs to collection system.

Wastewater Utility

Collection System

Budget Comparison to Prior Years

Description	FY 2003-04 Actual	FY 2004-05 Actual	FY 2005-06 Budget	FY 2006-07 Budget
Salaries	\$ 228,999	\$ 345,523	\$ 411,050	\$ 400,650
Benefits	23,640	119,169	183,300	161,650
Services/Supplies	174,049	187,667	1,425,450	1,518,100
Capital Outlay	-	-	-	-
Sub-Total	426,688	652,359	2,019,800	2,080,400
Intragovernmental Charges	700	650	-	-
<b>Totals</b>	<b>\$ 427,388</b>	<b>\$ 653,009</b>	<b>\$ 2,019,800</b>	<b>\$ 2,080,400</b>
POSITIONS			FY 2005-06 Funded Positions	FY 2006-07 Funded Positions
Utility Service Lead Worker			1.00	1.00
Utility Service Worker II			4.00	4.00
Utility Service Worker III			1.00	1.00
Utility Supervisor			<u>0.50</u>	<u>0.50</u>
<b>Total Division Positions</b>			<b><u>6.50</u></b>	<b><u>6.50</u></b>
Full Time Equivalent			0.00	0.00
Part Time Hours			0	0

## **WASTEWATER WATER RECLAMATION**

This Division implements the water recycling program. This effort includes operation and maintenance of the water recycling facilities (pump stations, pipelines and hydrants). This Division also manages the program that provides Secondary 23 Recycled Water produced by the wastewater treatment plant to seven privately owned ranches comprising approximately 800 acres of agricultural land and the Adobe Creek Golf Course. Management includes coordination with users of the recycled water, monitoring irrigation, and preparation of regulatory reports. This Division also plans, schedules and manages capital improvements to the water recycling facilities. The City contracts with Veolia for operation and maintenance of the water recycling facilities.

### **OBJECTIVES**

- Produce over 600 million gallons of recycled water for irrigation of agricultural lands and a golf course.
- Complete environmental documentation in support of Phase II of the Recycled Water Program.

Wastewater Utility

Water Reclamation

Budget Comparison to Prior Years

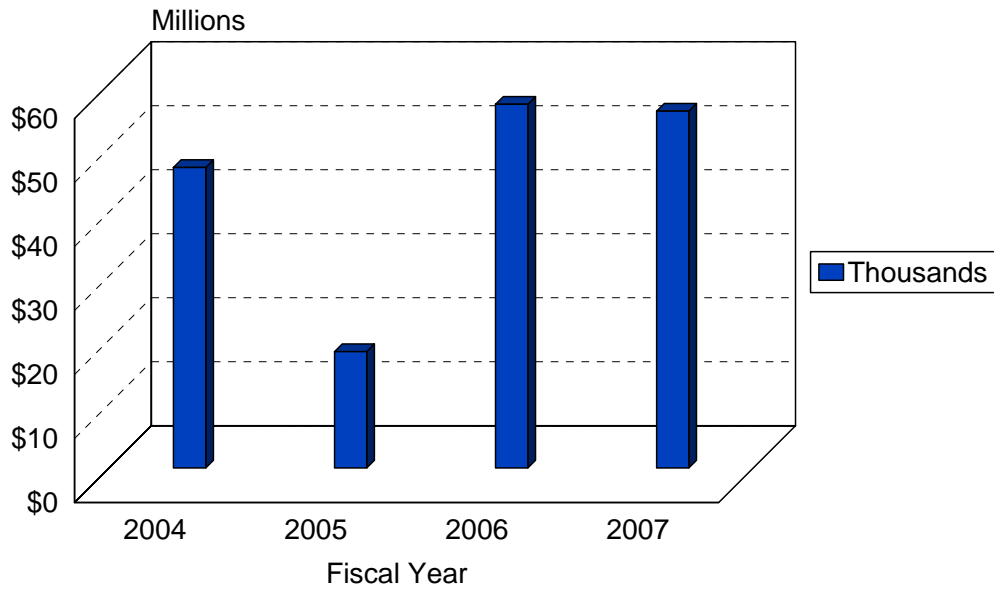
Description	FY 2003-04 Actual	FY 2004-05 Actual	FY 2005-06 Budget	FY 2006-07 Budget
Salaries	\$ 82,758	\$ -	\$ -	\$ -
Benefits	23,640	-	-	-
Services/Supplies	1,079,067	969,120	947,450	739,850
Capital Outlay	-	-	-	-
Sub-Total	1,185,465	969,120	947,450	739,850
Intragovernmental Charges	6,950	6,300	-	-
<b>Totals</b>	<b>\$ 1,192,415</b>	<b>\$ 975,420</b>	<b>\$ 947,450</b>	<b>\$ 739,850</b>

## WATER RESOURCES AND CONSERVATION

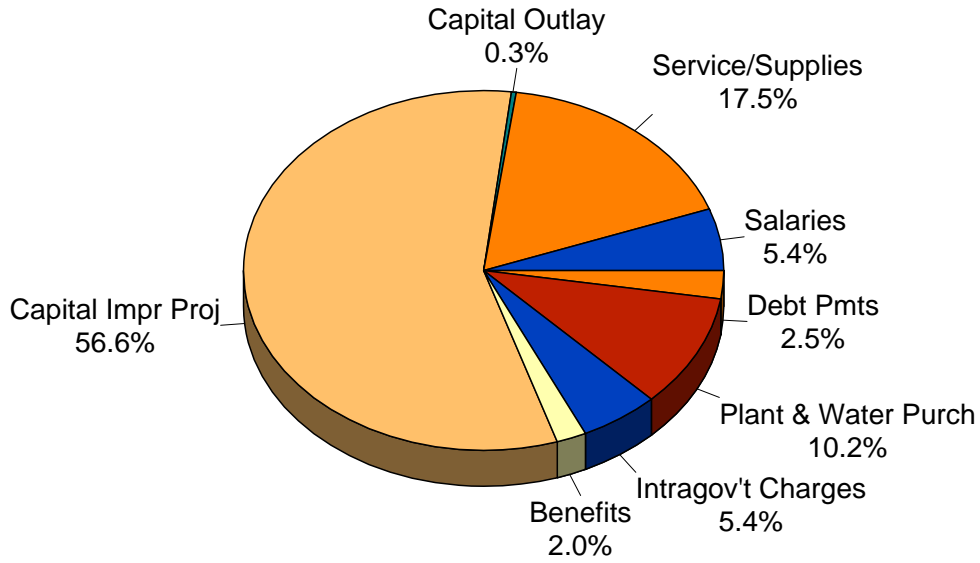
### FULL TIME POSITION ALLOCATION BY FUND FY 06-07

DEPARTMENT POSITION	FY 03-04	FY 04-05	FY 05-06	FY 06-07	General	OTHER FUNDS		
	Positions	Positions	Positions	Positions	Fund	Water	Sewer	Others
<b>WATER RESOURCES/CONSERVATION</b>								
Administrative Assistant	1.00	1.00	1.00	1.00		0.50	0.50	
Assoc. Civil Engineer	2.00	2.00	2.00	2.00		0.75	1.25	
City Manager	0.00	0.00	0.00	0.30		0.15	0.15	
Dir. Of Admin Services	0.00	0.00	0.00	0.20		0.10	0.10	
Dir. Water Resource/Conserv.	1.00	1.00	1.00	1.00		0.50	0.50	
Electrical Maintenance Worker II	1.00	1.00	1.00	1.00		1.00		
Engineering Manager	2.00	2.00	2.00	2.00		0.35	1.65	
Engineering Tech I	1.00	0.00	0.00	0.00				
Engineering Tech II	1.00	1.00	1.00	1.00		0.50	0.50	
Financial Analyst CIP	0.00	0.00	0.00	0.30		0.15	0.15	
Office Asst. II	0.00	0.00	1.00	1.00		0.50	0.50	
Secretary	1.00	1.00	1.00	1.00		0.50	0.50	
Sr. Engineering Tech	1.00	2.00	2.00	2.00		1.50	0.50	
Utility Manager	1.00	1.00	1.00	1.00		0.75	0.25	
Utility Service Lead Worker	4.00	4.00	4.00	4.00		2.00	2.00	
Utility Service Worker I	0.00	0.00	0.00	1.00		1.00		
Utility Service Worker II	12.00	12.00	12.00	11.00		5.00	6.00	
Utility Service Worker III	1.00	1.00	1.00	1.00			1.00	
Utility Supervisor	1.00	1.00	1.00	1.00			1.00	
Water Conservation Coordinator	1.00	1.00	1.00	1.00		1.00		
Water Resources Control Tech	0.00	0.00	1.00	1.00			1.00	
Water Resources Specialist	0.00	0.00	1.00	1.00			1.00	
Water Service Representative	3.00	3.00	3.00	2.00		2.00		
Water Service Rep Lead Worker	0.00	0.00	0.00	1.00		1.00		
Water Service Worker	1.00	0.00	0.00	0.00				
Water System Op I/II	1.00	2.00	2.00	2.00		2.00		
Water Systems Supervisor	1.00	1.00	1.00	1.00		1.00		
Water Utility Technician	2.00	2.00	2.00	2.00		2.00		
<b>Total Water Res./Conserv.</b>	<b>39.00</b>	<b>39.00</b>	<b>42.00</b>	<b>42.80</b>	<b>0.00</b>	<b>24.25</b>	<b>18.55</b>	<b>0.00</b>

### WATER RESOURCES & CONSERVATION ANNUAL BUDGET COMPARISON



### WATER RESOURCES APPROPRIATIONS





This is an aerial shot of early construction on the City's new \$140 million sewer treatment plant.