



Utilities

Goals

The goal of the Division of Environmental Services (Utilities) is to provide customers with the highest quality water and wastewater services possible while maintaining a competitive rate structure. The Division ensures that all regulatory agency requirements associated with the construction, operation, and maintenance of the utility system are met or exceeded.

Objectives

Ensure both treatment plants operate at maximum efficiency in order to provide high quality potable water, along with the environmentally sound disposal of wastewater, for the customers of Pembroke Pines 24 hours a day, 365 days per year, while maintaining one of the lowest utility rates in southeast Florida.

Maintain fire hydrant systems per City of Pembroke Pines Fire Department requirements, thereby retaining the best fire insurance rating in the State of Florida.

Identify and repair major sources of inflow and infiltration into the sanitary sewer system.

Continue to replace potable water meters annually on an as needed basis.

Inspect and maintain lift stations throughout the City, and upgrade or replace outdated parts, pumps, and stations as needed.

Continue to locate, clean, and pad strategic force main and water main valves throughout the City.

Major Functions and Activities

Six sections of responsibilities include:

- 1 - Environmental Services (Engineering)
- 2 - Technical Services
- 3 - Water Treatment
- 4 - Water Distribution
- 5 - Wastewater Collection
- 6 - Wastewater Treatment

These six sections work as an integrated team in a joint effort to provide the wide variety of services and support that are essential for the implementation of all operations. This includes pumping water from the ground, treating it, delivering it to our residents and collecting and treating wastewater, as well as collecting revenues for these services.

~ ENVIRONMENTAL SERVICES (ENGINEERING) - See Public Services Tab for details pertaining to Environmental Services (Engineering).

~ TECHNICAL SERVICES - The technical and regulatory requirements of the Water Treatment Plant and the Wastewater Treatment Plant are addressed by the Technical Services section. The fully certified laboratory continually monitors the water and wastewater systems, ensuring that all federal, state, and local standards for water quality are strictly adhered to. Additionally, the computerized control systems associated with the operation of both treatment plants, along with the computerized lift station telemetry Supervisory Control and Data Acquisition (SCADA) system are maintained and upgraded by the Technical Services section.

~ WATER TREATMENT - The City's Water Treatment Plant is staffed and operated 24 hours per day, providing our customers with approximately 13.5 million gallons of safe and reliable potable water daily. The water plant also provides water for firefighting purposes at pressures and flow rates that enable the City to maintain the highest fire insurance rating possible. Staff also provides the 24-hour communication link between customers and emergency repair crews. During plant operations, frequent inspections are performed, thereby ensuring all routine/preventative maintenance is performed to prevent degenerative performance.

~ WATER DISTRIBUTION - This section is responsible for the repair and preventative maintenance of more than 489 miles of water distribution lines, service lines, meters, and associated control valves and appurtenances. Additionally, the water distribution section provides repair and preventative maintenance and testing services to 4,121 fire hydrants.

~ WASTEWATER COLLECTION - This section is responsible for the operation, repair, and preventative maintenance of more than 30 miles of force mains and 399 miles of gravity sewer mains, as well as 7,288 associated manholes and 170 lift stations. In addition, the maintenance of over 226 miles of storm drains is provided via the Sewer Collection section.

~ WASTEWATER TREATMENT - The City's Wastewater Treatment Plant is staffed and operated 24 hours a day ensuring that approximately 7.0 million gallons/day of sanitary waste is treated and disposed of in an environmentally safe manner and in conformance with all applicable federal, state and local laws. The plant provides treatment capacity for



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those customers located west of Flamingo Road. The result of the treatment process is disposed of via deep well injection, while solids are land applied to serve the agricultural community. During plant operations, frequent inspections are performed, thereby ensuring all routine and preventative maintenance is performed in a timely manner to preclude any degenerative performance.

Budget Highlights

The budget provides funding for several important utility construction and maintenance projects.

The customer will continue to enjoy a very competitive rate structure and a high quality of service.

A significant number of mainline sanitary sewer mains will continue to be cleaned and inspected to ensure efficient system operation. Other segments of the existing gravity sewer system will undergo complete restoration utilizing trenchless repair technology that drastically reduces negative construction impact to the community. Existing sewer lift stations that are nearing the end of their effective service life are scheduled for replacement.

Plan for the design, permitting and installation of a new forcemain on Washington Street between the entrance to Hollybrook and lift station 34.

Provide approximately \$12.3 million dollars for phase one of the alternative water supply project. The project will treat more than a million gallons of raw sewage per day to drinking water standards. This project is a multi-year, multi-phase project that will extend through fiscal year 2015.

Continue to provide for the maintenance and repair of all existing fire hydrants within the City, helping to ensure that the City maintains the best fire insurance rating in the State of Florida.

Existing water meters will continue to be replaced on a regular schedule in order that the measuring of water utilized by the customers remains fair and accurate.

Provide the funding required to operate and maintain the existing utility infrastructure and customer service operations.

2009-10 Accomplishments

- Replaced 5 Lift Stations.

- Continued the meter replacement program throughout the city.
- Continued the valve location and lift station inspection programs and repaired/replaced parts and/or stations as needed.
- Completed plans, permits and construction inspection for forcemain replacement on SW 178 Avenue between Pines Boulevard and SW 12 Street.
- Completed the inflow and infiltration program for lift station 16.
- Completed the tv and inspection portion of the inflow and infiltration program for lift station 17 and Hollybrook (lift Stations 23 and 32).

Utilities Performance Measures

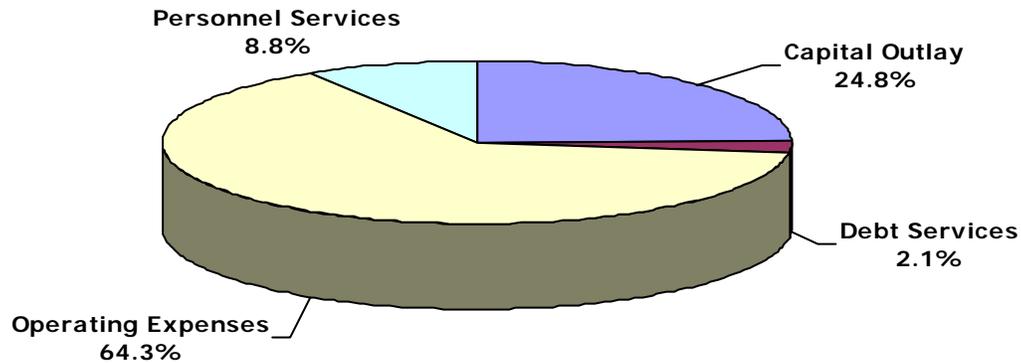
Indicator	2007-08		2008-09		2009-10	2010-11
	Actual	Goal	Actual	Goal	Goal	Goal
Outputs						
Number of potable water meters replaced *	2,090	1,450	1,932	1,450	2,700	2,500
Linear feet of gravity sewer mains rehabilitated eliminating inflow and infiltration into the sanitary sewer system *	4,600~	12,000	5,250	5,000 ~	5,000~	5,000~
Miles of water main maintained	521	503	521	510	521	521
Fire hydrants maintained	4,504	4,450	4,500	4,470	4,510	4,520
Lift stations maintained	187	180	187	185	187	187
Miles of sanitary sewer maintained	410	403	411	420	411	411
Miles of force main maintained	35	31	34	34	35	34
Effectiveness						
PH (County standard 6.5 - 9.1 or higher)	9.20	9.10	9.20	9.20	9.20	9.20
Total Residual Chlorine (County standard 4.0 or lower)	3.26	3.50	3.50	3.50	3.50	3.50
Color (County standard 15.0 or lower)	5.53	6.00	6.00	6.00	6.00	6.00
Fluoride ASF (County standard 0.8 or lower)	0.79	0.80	0.80	0.80	0.80	0.80
Turbidity NTU (County standard 1.0 or lower)	0.05	0.06	0.06	0.06	0.06	0.06
Iron Fe- (County standard 0.3 or lower)	0.02	0.02	0.02	0.02	0.02	0.02
CBOD5 Effluent (County standard 20 or lower)	4.70	5.50	5.25	5.20	5.20	5.25
TSS Effluent (County standard 20 or lower)	3.26	3.00	3.00	3.00	3.00	3.00
Efficiency						
Number of hours required to repair a pressure main break	4	4	4	4	4	4
Number of hours required to respond to after-hours emergency situations	1	1	1	1	1	1

* Once the goal is met the resources are directed to other needs within the City.

~ Marks the start of a smaller infiltration program due to a reduction in resource availability.

Utilities - Budget Summary

Revenue Category	2007-08 Actual	2008-09 Actual	2009-10 Budget	2010-11 Budget
Building Permits	63,032	14,416	20,000	20,000
General Government Charges	41,707	40,913	39,200	39,200
Physical Environment Charges	2,026,044	715,017	620,000	670,000
Water/Sewer Charges	29,738,003	36,532,568	36,676,037	40,850,770
Investment Income	2,488,373	665,177	828,975	386,605
Disp of Fix Assets / Sale of Equip/ Sc	-338,017	-2,573	1,000	1,000
Miscellaneous Revenues	-	-	1,000	1,000
Other Miscellaneous Revenues	10,476	11,723	11,000	11,000
Debt Proceeds	-	-	20,000,000	12,300,000
Water/Sewer Connection	1,875,956	355,884	415,000	370,000
Capital Contributed from Developer	5,431,048	361,261	-	-
Total	41,336,622	38,694,386	58,612,212	54,649,575



Utilities - Budget Summary

Expenditure Category	2007-08 Actual	2008-09 Actual	2009-10 Budget	2010-11 Budget
Personnel Services				
Salary	4,670,503	4,366,070	3,805,287	3,048,479
Benefits	3,418,571	3,203,075	2,277,335	1,754,697
Personnel Services Subtotal	8,089,074	7,569,145	6,082,622	4,803,176
Operating Expenses				
Contingency	-	-	-	105,361
Professional Services	256,962	183,427	171,293	183,000
Accounting and Auditing	68,496	71,862	72,194	73,780
Other Contractual Services	2,537,863	2,343,318	3,407,642	3,845,446
Travel Per Diem	697	126	1,200	950
Communication and Freight Services	212,423	212,047	218,000	218,000
Utility Services	9,194,547	7,603,862	7,753,093	8,937,000
Rentals and Leases	101,524	108,297	110,850	110,994
Insurance	1,248,170	771,648	2,055,174	2,293,730
Repair and Maintenance Services	1,082,939	931,304	1,340,858	2,797,300
Printing and Binding	12,287	10,900	15,500	15,500
Promotional Activities	-	1,060	-	1,100
Depreciation	5,750,018	5,784,962	-	-
Other Current Charges and Obligation	12,695,553	14,106,782	13,847,044	14,782,597
Office Supplies	14,614	13,990	15,750	15,750
Operating Supplies	1,585,744	1,554,846	1,633,350	1,679,350
Road Materials and Supplies	20,972	19,674	25,000	25,000
Publications and Memberships	2,424	375	4,250	2,750
Operating Expenses Subtotal	34,785,233	33,718,483	30,671,198	35,087,608
Capital Outlay				
Buildings	-	-	20,082,141	13,300,000
Improvements Other Than Buildings	-	-	1,758,497	255,000
Machinery and Equipment	-	-	17,054	-
Capital Outlay Subtotal	-	-	21,857,692	13,555,000
Debt Services				
Principal Payments	-	-	-	650,000
Interest Payments	-	-	-	500,000
Other Debt Service Costs	-	-	700	700
Debt Services Subtotal	-	-	700	1,150,700
Grants and Aid				
Aids to Government Agencies	-	-	-	53,091
Grants and Aid Subtotal	-	-	-	53,091
Total	42,874,308	41,287,628	58,612,212	54,649,575

Utilities - Personnel Summary

Position Title	2007-08 Actual	2008-09 Actual	2009-10 Budget	2010-11 Budget
12051 Public Services Director	0.5	-	-	-
12052 Controller/Internal Auditor	0.5	0.5	-	-
12055 Deputy Public Services Director	0.5	0.5	0.5	0.5
12109 Administrative Supervisor	3	3	2	2
12149 Division Director Utilities	1	1	1	1
12187 Laboratory Technician II	1	1	-	-
12188 Laboratory Technician I	1	1	-	-
12279 Meter Reader	1	-	-	-
12500 City Engineer	0.5	0.5	0.5	-
12513 Account Clerk III	1	1	1	1
12515 Accounting Clerk II	1	1	-	-
12516 Assistant City Manager	0.5	-	0.5	0.5
12523 Accountant	2	2	-	-
12533 Electrician II	1	-	-	-
12550 Backflow Specialist	1	1	1	1
12552 Budget Analyst	1	1	-	-
12672 Chief Waste Water Operations	1	1	1	1
12673 Chief Water Operations	1	1	1	1
12674 Chief Chemist	1	-	-	-
12684 Clerical Spec II	4	2	-	-
12685 Clerical Aide	1	-	-	-
12740 Custodian	-	1	-	-
12753 Utility Service Worker II/Camera Oper	1	1	1	1
12767 Utility Maintenance Supervisor	4	4	1	1
12770 Engineer Inspector	4	2	-	-
12774 Engineer	-	-	-	0.5
12778 W-Utility Ser Worker I	1	1	-	-
12779 W-Utility Ser Worker II	11	8	6	6
12785 S-Utility Service Worker I	3	3	3	3
12786 S-Utility Service Worker II	9	6	2	2
12831 CADD Operator	1	1	1	1
12926 Water Plant Operator I	3	3	3	3
12927 Water Plant Operator II	1	-	-	-
12928 Water Plant Operator III	9	6	4	4
12946 S-Treatment Plant Operator I	2	2	1	1
12947 S-Treatment Plant Operator II	5	4	4	4
12948 S-Treatment Plant Operator III	5	3	3	3
13001 Public Services Director	0.5	0.5	0.5	0.5
13160 Utility Special Project Manager	-	1	1	1
13475 P/T Courier	2	-	-	-
13502 P/T Meter Reader	1	-	-	-
13674 P/T Chief Chemist	-	1	1	1
13681 P/T Clerk Spec II	-	1	1	1
13926 P/T Water Plant Operator I	-	1	1	1

Utilities - Personnel Summary

Position Title		2007-08 Actual	2008-09 Actual	2009-10 Budget	2010-11 Budget
Total	Full-time	84	63	38	38
	Part-time	3	4	4	4