



Utilities

Goals

The goal of the Division of Environmental Services (Utilities) is to provide customers with the highest possible quality of water and wastewater services 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 a 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Inspect and maintain lift stations throughout the City and upgrade or replace outdated parts, pumps, and stations as needed.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

The six sections of responsibilities are:
 Environmental Services (Engineering)
 Technical Services
 Water Treatment
 Water Distribution
 Wastewater Collection
 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 its separate 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 met. 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



Utilities

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 required to operate and maintain the existing utility infrastructure and customer service operations. Changes from the current budget include the following:

- \$4.0 million for Phase I of a multi-year program to replace the existing control odor scrubbers and existing biological odor filters, add redundant odor control scrubbers and add advance odor control equipment to the sewer treatment plant.
- \$2.6 million for the rehabilitation of treatment units two and three at the wastewater plant
- \$0.9 million for increased wastewater treatment charges paid to the City of Hollywood.
- \$0.5 million for the replacement of approximately 2,500 linear feet of waterline located immediately north of the water plant. This work was originally scheduled for fiscal year 2011-12 but had to be delayed because the funding for this waterline project was needed to pay for the replacement of some of the blowers at the wastewater plant.
- \$0.4 million to rehabilitate master lift station number four
- \$.03 million for replacement of the liner in the overflow basin at the waste water treatment plant

Phase II of the AWS project (Alternative Water System) is on hold pending a future City Commission workshop to discuss the rapidly changing regulatory environment and to determine whether the project could be delayed for 1-2 years without having a negative impact on the utility's ability to supply water and sewer services to its customers. Funds have not been appropriated for the AWS project in the fiscal year 2012-13 budget.

Accomplishments

- Replaced 6 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 and permits of wastewater treatment unit number one. The construction work on the rehabilitation of wastewater treatment unit number one was completed in April, 2012.
- Completed plans and permits of wastewater treatment unit number four. The construction work on the rehabilitation of wastewater treatment unit number four is scheduled to be completed in October, 2012.

Completed plans, permits, and construction for the replacement of waterlines on the following streets:

- NW 4 Street - SW 64 Way to SW 67 Avenue
- NW 78 Avenue - NW 11 Street to NW 13 Street
- NW 78 Terrace - NW 11 Street to NW 13 Street
- NW 11 Court - NW 78 Avenue to NW 78 Terrace
- NW 12 Street - NW 78 Avenue to NW 78 Terrace.

The construction and inspections on the replacement of waterlines on the streets began in April, 2012, and are scheduled to be completed in October, 2012.

9,800 linear feet of gravity sewer lines were rehabilitated (lined) during 2011-2012.

Completed the plans and permits for wastewater treatment unit numbers 2 and 3. The construction work is scheduled to start in November 2012.

Utilities Performance Measures

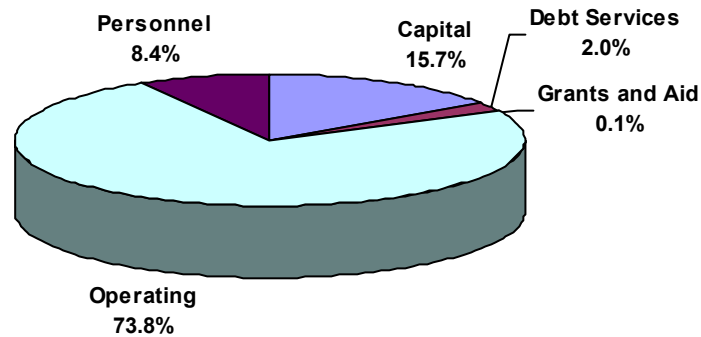
Indicator	2009-10		2010-11		2011-12	2012-13
	Actual	Goal	Actual	Goal	Goal	Goal
Outputs						
Number of potable water meters replaced *	1,601	2,700	1,792	2,500	2,000	2,500
Linear feet of gravity sewer mains rehabilitated, eliminating inflow and infiltration into the sanitary sewer system *	2,000	5,000	0 ^	5,000	5,000	5,000
Miles of water main maintained	521	521	521	521	521	521
Fire hydrants maintained	4,480	4,510	4,500	4,520	4,500	4,600
Lift stations maintained	186	187	187	187	186	190
Miles of sanitary sewer maintained	411	411	411	411	411	412
Miles of force main maintained	34	35	34	34	34	34
Effectiveness						
PH (County standard 6.5 - 9.1 or higher)	9.2	9.2	9.2	9.2	9.2	9.2
Total Residual Chlorine (County standard 4.0 or lower)	3.5	3.5	3.5	3.5	3.5	3.5
Color (County standard 15.0 or lower)	6.0	6.0	6.0	6.0	6.0	6.0
Fluoride ASF (County standard 0.8 or lower)	0.8	0.8	0.8	0.8	0.8	0.8
Turbidity NTU (County standard 1.0 or lower)	0.06	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)	5.20	5.20	5.20	5.25	5.20	5.20
TSS Effluent (County standard 20 or lower)	3.0	3.0	3.0	3.0	3.0	3.0
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.

^ The 5,000 linear feet of sewer rehabilitation was delayed and rebid due to lack of qualified bids received during 2010-11. Over 9,800 linear feet are projected to be rehabilitated during 2011-12.

Utilities - Budget Summary

Revenue Category	2009-10 Actual	2010-11 Actual	2011-12 Budget	2012-13 Budget
Federal Grants	192,400	-	-	-
Building Permits	7,536	37,664	30,000	20,000
General Government Charges	46,673	49,434	44,200	48,200
Physical Environment Charges	605,247	770,014	672,000	710,000
Water/Sewer Charges	36,150,822	40,303,087	41,511,584	41,740,000
Investment Income	665,360	-6,891,075	422,000	388,000
Disp of Fix Assets / Sale of Equip/ Sc	-	-	1,000	1,000
Miscellaneous Revenues	-	-	1,000	1,000
Other Miscellaneous Revenues	2,453	1,194	6,000	4,500
Private Gifts / Contributions	-	100,000	-	-
Interfund Transfers	-	7,775,118	-	-
Appropriated Retained Earnings	-	-	2,287,877	-
Prior Year Bond Proceeds	-	-	6,862,852	-
Water/Sewer Connection	574,813	814,432	450,000	550,000
Capital Contributed from Developer	105,740	580,229	-	-
Beginning Retained Earnings	-	-	1,805,160	8,187,851
Total	38,351,045	43,540,097	54,093,673	51,650,551



Utilities - Budget Summary

Expenditure Category	2009-10 Actual	2010-11 Actual	2011-12 Budget	2012-13 Budget
Personnel				
Salary	3,416,602	2,331,174	2,594,021	2,316,175
Benefits	2,161,584	1,777,520	1,929,600	2,031,833
Personnel Subtotal	5,578,185	4,108,694	4,523,621	4,348,008
Operating				
Contingency	-	-	-	-
Professional Services	108,710	137,845	126,317	183,200
Accounting and Auditing	71,754	52,436	72,068	56,054
Other Contractual Services	3,198,773	3,277,259	4,400,863	4,733,782
Travel Per Diem	1,379	1,112	550	950
Communication and Freight Services	216,302	212,174	213,828	242,800
Utility Services	7,895,067	8,757,063	8,911,000	10,800,000
Rentals and Leases	106,233	108,761	115,745	117,337
Insurance	877,308	1,120,132	2,305,945	1,765,856
Repair and Maintenance Services	1,161,270	1,227,762	1,220,789	2,172,551
Printing and Binding	9,836	13,168	11,250	16,250
Promotional Activities	-	2,070	750	-
Depreciation	5,497,480	5,320,900	2,120,000	2,160,000
Other Current Charges and Obligation	13,721,939	14,702,655	14,283,595	14,043,361
Office Supplies	12,207	14,080	14,150	15,650
Operating Supplies	1,553,489	1,740,959	1,902,875	1,777,707
Road Materials and Supplies	19,541	24,433	25,000	25,000
Publications and Memberships	-	347	250	2,000
Operating Subtotal	34,451,289	36,713,154	35,724,975	38,112,498
Capital				
Buildings	-	-	6,752,708	4,000,000
Improvements Other Than Buildings	-	-	3,598,762	3,322,817
Machinery and Equipment	-	-	2,422,103	762,500
Capital Subtotal	-	-	12,773,573	8,085,317
Debt Services				
Principal Payments	-	-	604,854	661,603
Interest Payments	-	83,525	412,859	390,034
Other Debt Service Costs	-	-	700	-
Debt Services Subtotal	-	83,525	1,018,413	1,051,637
Grants and Aid				
Aids to Government Agencies	-	-	53,091	53,091
Grants and Aid Subtotal	-	-	53,091	53,091
Other				
Other Uses	-	4,771	-	-
Other Subtotal	-	4,771	-	-
Total	40,029,474	40,910,145	54,093,673	51,650,551

Utilities - Personnel Summary

Position Title	2009-10 Actual	2010-11 Actual	2011-12 Adopted Budget	2012-13 Budget
12027 Utility Operations Manager	-	-	-	1
12055 Deputy Public Services Director	0.5	0.5	0.5	0.5
12109 Administrative Supervisor	2	2	2	2
12149 Division Director Utilities	1	1	-	-
12499 Deputy City Manager	-	-	-	0.5
12500 City Engineer	0.5	-	-	-
12513 Account Clerk III	1	1	1	1
12516 Assistant City Manager	0.5	0.5	0.5	0.5
12550 Backflow Specialist	1	1	1	-
12672 Chief Waste Water Operations	1	1	1	-
12673 Chief Water Operations	1	1	1	1
12753 Utility Service Worker II/Camera Oper	1	1	1	1
12767 Utility Maintenance Supervisor	1	1	1	-
12774 Engineer	-	0.5	-	0.5
12779 W-Utility Ser Worker II	6	6	6	4
12785 S-Utility Service Worker I	3	3	3	2
12786 S-Utility Service Worker II	2	2	2	2
12831 CADD Operator	1	1	1	1
12926 Water Plant Operator I	3	3	3	3
12928 Water Plant Operator III	4	4	4	3
12946 S-Treatment Plant Operator I	1	1	1	1
12947 S-Treatment Plant Operator II	4	4	4	2
12948 S-Treatment Plant Operator III	3	3	3	3
13001 Public Services Director	0.5	0.5	0.5	0.5
13160 Utility Special Project Manager	1	1	-	-
13163 Division Director of Utilities	-	-	1	1
13674 P/T Chief Chemist	1	1	1	1
13681 P/T Clerk Spec II	1	1	1	1
13926 P/T Water Plant Operator I	1	1	1	1
Total				
Full-time	38	38	36.5	29.5
Part-time	4	4	4	4