

Fund: <b>WATERWORKS and SEWERAGE</b>
Department: <b>PUBLIC WORKS</b>
Division: <b>WATER TREATMENT PLANT</b>
Division No.: <b>47011</b>

**MISSION:**

The mission of the Water Treatment Plant is to process water from Cedar Lake and provide high quality drinking water for use by the City's water customers.

**SERVICES:**

The Water Treatment Plant supplies potable water to residents and businesses of Carbondale, Southern Illinois University and three outlying water districts.

**SIGNIFICANT GOALS AND OBJECTIVES:**

**GOAL:**

- A. Produce a safe and adequate supply of water to meet the needs of the community

**Objective:**

- 1. Treat water to meet or exceed state and federal regulatory standards

**Strategies:**

- a. Test water at various stages of the treatment process on a continuous basis
- b. Adjust chemical dosages based on laboratory data to maintain optimal finished water quality

**GOAL:**

- B. Operate in a cost effective manner

**Objective:**

- 1. Emphasize efficiency in the water treatment process

**Strategies:**

- a. Preserve equipment and energy by preventive maintenance on electric motors, pumps, valves and other equipment
- b. Conserve water by maximizing the clarification process and minimizing filter backwashes
- c. Review operational procedures and compare with emerging technologies to maintain best practices

**GOAL:**

- C. Operate in a consistent manner through all shifts to ensure the stability of the treatment process

**Objective:**

- 1. Ensure effective communication among staff

**Strategies:**

- a. Promote communication between operators of different shifts and maintenance operators
- b. Encourage all operators to share ideas for improvement and areas of concern with the Water Operations Manager
- c. Hold meetings of all operators and the Water Operations Manager periodically

**PROGRAM HIGHLIGHTS:**

During FY 2016, Water Treatment Plant operators provided a 24-hour emergency customer service line for all water and sewer issues. This will continue in FY 2017.

Also during FY 2016, Water Treatment Plant operators were responsible for performing tests multiple times each shift and ensured the high quality of the finished water and the efficiency of the operations. In FY 2017, these services will continue.

In FY 2016, maintenance operators were responsible for all repairs of all equipment throughout the Water Treatment Plant, the Central Lab, the Distribution Building, as well as preventive and routine maintenance. Maintenance operators are also responsible for maintaining all remote operations sites, including water towers and pumping stations. These activities will also continue throughout FY 2017.

In FY 2013 through FY 2015, Water Treatment Plant personnel installed new vents and repainted the exteriors of both of the 1,000,000 gallon clear well storage tanks at the Water Treatment Plant. Restoration of these storage tanks continued in FY 2016 with sandblasting and repainting of the interior of one tank thru the City's Community Investment Program (WS1601). The interior of the second tank will be sandblasted and repainted in FY 2017, which will conclude the rehabilitation of these tanks.

The Water Treatment Plant sludge lagoons were completely rebuilt and returned to service in FY 2016 (WS1201).

In FY 2017, through the Community Investment Program funds are budgeted to sandblast and repaint the interiors of 2 of the 6 welded steel filters inside the Water Treatment Plant. The other 4 will be completed in FY 2018 and FY 2019. The exteriors of all 6 filters were repainted in recent years by Water Treatment Plant staff.

In FY 2017 the City will begin supplying Bumcombe Public Water District (BPWD) with water directly from our system, currently they are supplied our water through South Highway Water District.

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***PERFORMANCE MEASUREMENTS:***

<b>Performance Measurements</b>	<b>Division Goal/ Objective</b>	<b>Actual FY 2015</b>	<b>Authorized Budget FY 2016</b>	<b>Estimated Actual FY 2016</b>	<b>Budget FY 2017</b>
Raw Water Treated per Year (Million Gallons)	A-1	1,431	1,500	1,443	1,500
Average Raw Water Treated per Day (Million Gallons Per Day, MGD)	A-1	3.921	4.000	3.955	4.000
Finished Water Pumped per Year (Million Gallons)	A-1, B-1	1,404	1,450	1,416	1,450
Cost Per Thousand Gallons of Finished Water Pumped	A-1, B-1	\$0.927	\$0.907	\$0.894	\$0.915

***NUMBER OF FULL-TIME EQUIVALENT EMPLOYEES:***

<b>POSITION TITLE</b>	<b>ACTUAL FY 2015</b>	<b>AUTHORIZED BUDGET FY 2016</b>	<b>ESTIMATED ACTUAL FY 2016</b>	<b>BUDGET FY 2017</b>	<b>\$ AMOUNT BUDGET FY 2017</b>
Plant Operator	7.00	7.00	7.00	7.00	\$362,246
<b>TOTAL</b>	7.00	7.00	7.00	7.00	\$362,246

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EXPENDITURE CLASSIFICATION	ACTUAL FY2015	AUTHORIZED	ESTIMATED	BUDGET FY2017
		BUDGET FY2016	ACTUAL FY2016	
<b>PERSONAL SERVICES</b>				
100 Employee Salary and Wages	337,917	350,002	350,002	362,246
110 Employee Overtime	21,682	26,573	22,445	18,719
112 Employee Preimum Payments	17,575	18,097	19,382	21,821
130 Employee Health Ins. Benefits	60,849	56,169	56,768	63,138
131 Employee Retirement Benefits	80,321	75,155	74,133	75,434
140 Employee Work. Comp. Benefits	23,561	22,869	20,442	22,437
150 Special Contractual Benefits	5,950	5,950	5,950	5,100
<b>TOTAL PERSONAL SERVICES</b>	<b>547,855</b>	<b>554,815</b>	<b>549,122</b>	<b>568,895</b>
<b>DIRECT OPERATING CHARGES &amp; SERVICES</b>				
222 Communications-Postage	11	0	0	0
230 Utilities-Electric	306,760	304,821	307,000	310,816
240 Travel, Conferences, Training	228	700	250	500
250 Repairs & Maint.-Equip.	33,382	63,600	40,000	56,000
251 Repairs & Maint.-Bldg & Struc.	42,945	27,534	36,000	64,584
252 Repairs & Maint.-Other Improv.	3,590	4,500	4,315	4,500
260 Rental Charges	1,764	2,000	500	1,800
271 Other Outside Services	23,384	25,000	24,000	25,950
273 Operating Supplies & Materials	298,141	312,210	300,000	285,030
275 Motor Fuels and Lubricants	2,514	4,212	2,022	3,780
299 Operating Equipment	7,042	9,000	0	0
<b>TOTAL DIR. OPER. CHRGS. &amp; SRVCS.</b>	<b>719,761</b>	<b>753,577</b>	<b>714,087</b>	<b>752,960</b>
<b>SERVICES AND CHARGES TRANSFERRED IN</b>				
310 Veh. & Equip.-Labor & Overhead	2,906	2,842	2,131	2,189
311 Vehicle & Equipment-Parts	2,041	1,500	1,200	1,200
315 Building & Structure Maint.	516	2,130	452	2,181
316 Street Maintenance Services	927	0	0	0
360 Property Management Services	875	0	0	0
361 Forestry Services	183	192	184	266
<b>TOTAL SRVCS. &amp; CHRGS. TRANS IN</b>	<b>7,448</b>	<b>6,664</b>	<b>3,967</b>	<b>5,836</b>
<b>CAPITAL OUTLAY</b>				
503 Machinery and Equipment	27,000	0	0	0
<b>TOTAL CAPITAL OUTLAY</b>	<b>27,000</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>TOTAL EXPENDITURES</b>	<b>1,302,064</b>	<b>1,315,056</b>	<b>1,267,176</b>	<b>1,327,691</b>