

Fund:
WATERWORKS and SEWERAGE

Department:
PUBLIC WORKS

Division:
SOUTHEAST WASTEWATER TREATMENT PLANT

Division No.: **47022**

MISSION:

The mission of the Southeast Wastewater Treatment Plant is to reclaim wastewater so that it may be returned to natural waterways in compliance with state and federal environmental laws, regulations, and standards.

SERVICES:

The Southeast Wastewater Treatment Plant processes wastewater from the central and eastern parts of Carbondale and from the Southern Illinois University Carbondale campus. The effluent is discharged to Crab Orchard Creek.

SIGNIFICANT GOALS AND OBJECTIVES:

GOAL:

A. Operate an efficient waste water treatment facility that continually meets community needs and complies with all applicable state and federal environmental laws, regulations and standards.

Objective:

1. Utilize available resources in a cost-effective manner and enhance the efficiency of plant operations

Strategies:

- a. Maintain constant control over purchasing of plant needs
- b. Utilize the plant SCADA (Supervisory Control and Data Acquisition) system to monitor and achieve maximum plant operating efficiencies
- c. Maintain a preventive maintenance program on all motors, pumps, equipment, tanks and appurtenances

Objective:

2. Achieve excellence in regard to plant safety

Strategies:

- a. Periodically conduct employee safety meetings
- b. Purchase required safety items and provide safety training for personnel
- c. Identify and reduce personal hazards in the work environment, encourage employee input in recognizing workplace hazards

Objective:

3. Reduce storm water infiltration that must be treated at the plant

Strategies:

- a. Continue search for infiltration and identify lines with inflow problems
- b. Place lines with inflow problems in Community Investment Program

Objective:

4. Meet Federal 503 Sludge Regulations

Strategies:

- a. Sample sludge to assure compliance with regulations
- b. Work with Central Laboratory to monitor sludge and make recommendations on improving sludge quality

GOAL:

B. Promote Illinois Environmental Protection Agency certification for plant personnel

Objective:

1. Obtain the highest certification for which each employee qualifies

Strategies:

- a. Provide educational material for state certification
- b. Maintain, update and continue an employee in-house educational training program

PROGRAM HIGHLIGHTS:

In FY 2015, the Southeast Wastewater Treatment Plant continued to produce high quality effluent and met or exceeded the standards set forth by the State and Federal National Pollution Discharge Elimination System (NPDES) permit as issued by the Illinois Environmental Protection Agency (IEPA).

In FY 2015, the third year of a multi-year Sanitary Sewer Inflow and Infiltration Study (CIP #SS1301) was completed. The purpose of this intensive study is to identify major and minor sources of sanitary sewer inflow and infiltration; reducing significant inflow and infiltration should help reduce operational costs of the Southeast Wastewater Treatment Plant.

In FY 2015, variable speed drives were added to two of the oxidation ditch motors to increase their energy efficiency and increase nutrient removal as required by the IEPA.

A concrete bottom was installed on the West Lagoon to

help facilitate handling of increased sludge from new flow from the Water Treatment Plant. Bearings were also replaced on both Final Clarifiers.

In FY 2016, two more variable speed drives will be installed for increased treatment efficiency and reduced energy consumption.

Also in FY2016, one sludge pump will be replaced.

PERFORMANCE MEASUREMENTS:

Performance Measurements	Division Goal/ Objective	Actual FY 2014	Authorized Budget FY 2015	Estimated Actual FY 2015	Budget FY 2016
Total Million Gallons of Water Treated	A-1	1,242	1,278	1,213	1,250
Average Million Gallons of Water Treated Per Day	A-1	3.4	3.5	3.3	3.4
Cost Per 1,000 Gallons of Water Treated (Dollars)	A-1	\$0.73	\$0.75	\$0.78	\$0.74
Dry Tons of Sewage Sludge Produced	A-1	361	375	321	350

NUMBER OF FULL-TIME EQUIVALENT EMPLOYEES:

POSITION TITLE	ACTUAL FY 2014	AUTHORIZED BUDGET FY 2015	ESTIMATED ACTUAL FY 2015	BUDGET FY 2016	\$ AMOUNT BUDGET FY 2016
Southeast Wastewater Treatment Plant Superintendent	1.00	1.00	1.00	1.00	\$59,194
Plant Operator	7.00	7.00	6.96	7.00	\$338,394
TOTAL	8.00	8.00	7.96	8.00	\$397,588

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EXPENDITURE CLASSIFICATION	AUTHORIZED		ESTIMATED	
	ACTUAL FY2014	BUDGET FY2015	ACTUAL FY2015	BUDGET FY2016
PERSONAL SERVICES				
100 Employee Salary and Wages	366,738	394,586	394,064	397,588
110 Employee Overtime	7,599	16,516	11,379	10,028
112 Employee Premium Payments	14,676	10,328	13,630	16,623
130 Employee Health Ins. Benefits	74,448	59,309	71,944	71,547
131 Employee Retirement Benefits	85,381	87,890	85,532	81,221
140 Employee Work. Comp. Benefits	22,009	19,351	19,817	21,738
150 Special Contractual Benefits	5,775	5,950	5,950	5,950
TOTAL PERSONAL SERVICES	576,626	593,930	602,316	604,695
DIRECT OPERATING CHARGES & SERVICES				
200 Professional and Consultant Fees	130	0	0	0
220 Communications-Telephone	552	540	584	540
221 Communications-Data	385	516	600	516
222 Communications-Postage	311	240	265	240
230 Utilities-Electric	133,344	147,876	134,450	147,876
231 Utilities-Gas	3,264	4,831	3,000	4,831
240 Travel, Conferences, Training	885	896	896	896
250 Repairs & Maint.-Equip.	48,710	44,474	44,280	62,408
251 Repairs & Maint.-Bldg & Struc.	8,217	4,079	3,500	4,028
252 Repairs & Maint.-Other Improv.	11,763	16,975	12,000	16,975
271 Other Outside Services	39,209	59,026	57,000	42,346
272 Office Supplies	262	233	280	283
273 Operating Supplies & Materials	11,345	9,060	6,500	9,060
275 Motor Fuels and Lubricants	11,501	16,522	11,500	15,122
299 Operating Equipment	2,120	0	0	0
TOTAL DIR. OPER. CHRGS. & SRVCS.	271,998	305,268	274,855	305,121
SERVICES AND CHARGES TRANSFERRED IN				
310 Veh. & Equip.-Labor & Overhead	5,376	6,122	8,000	7,104
311 Vehicle & Equipment-Parts	7,945	8,100	10,500	8,100
315 Building & Structure-Maint.	1,562	2,171	750	2,130
316 Street Maintenance Services	1,358	1,578	4,500	1,576
332 Information Systems Services	0	0	2,900	0
361 Forestry Services	0	298	200	383
TOTAL SRVCS. & CHRGS. TRANS IN	16,241	18,269	26,850	19,293
CAPITAL OUYLAY				
502 Office Furn., Fix., & Equip.	6,438	0	0	0
503 Machinery and Equipment	30,449	44,500	93,749	0
TOTAL CAPITAL OUTLAY	36,887	44,500	93,749	0
TOTAL EXPENDITURES	901,752	961,967	997,770	929,109