

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 2014, 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 2014, the second 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.

During FY 2014, oxidation ditch aeration discs were repaired and replaced.

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

During FY 2014, the more frequent and smaller duration rain patterns were evident in the lack of inflow and infiltration of rainwater and groundwater into the sewer systems which was reflected in the gallons of water that was treated.

PERFORMANCE MEASUREMENTS:

Performance Measurements	Division Goal/ Objective	Actual FY 2013	Authorized Budget FY 2014	Estimated Actual FY 2014	Budget FY 2015
Total Million Gallons of Water Treated	A-1	1,131	1,400	1,230	1,278
Average Million Gallons of Water Treated Per Day	A-1	3.1	3.84	3.37	3.5
Cost Per 1,000 Gallons of Water Treated (Dollars)	A-1	\$0.81	\$0.66	\$0.71	\$0.72
Dry Tons of Sewage Sludge Produced	A-1	395	410	315	375

NUMBER OF FULL-TIME EQUIVALENT EMPLOYEES:

POSITION TITLE	ACTUAL FY 2013	AUTHORIZED BUDGET FY 2014	ESTIMATED ACTUAL FY 2014	BUDGET FY 2015	\$ AMOUNT BUDGET FY 2015
Southeast Wastewater Treatment Plant Superintendent	1.00	1.00	1.00	1.00	\$59,195
Plant Operator	7.13	7.00	7.00	7.00	\$335,391
TOTAL	8.13	8.00	8.00	8.00	\$394,586

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EXPENDITURE CLASSIFICATION	AUTHORIZED		ESTIMATED	
	ACTUAL FY2013	BUDGET FY2014	ACTUAL FY2014	BUDGET FY2015
PERSONAL SERVICES				
100 Employee Salary and Wages	364,568	379,814	379,814	394,586
110 Employee Overtime	17,522	19,815	15,287	16,516
112 Employee Premium Payments	7,012	10,585	7,927	10,328
130 Employee Health Ins. Benefits	79,063	80,064	68,587	59,309
131 Employee Retirement Benefits	76,567	83,879	81,807	87,890
140 Employee Work. Comp. Benefits	27,634	20,496	19,676	19,351
150 Special Contractual Benefits	4,099	3,850	5,775	5,950
TOTAL PERSONAL SERVICES	576,465	598,503	578,873	593,930
DIRECT OPERATING CHARGES & SERVICES				
220 Communications-Telephone	1,004	1,200	540	540
221 Communications-Data	0	480	516	516
222 Communications-Postage	353	220	240	240
230 Utilities-Electric	130,692	138,876	138,616	147,876
231 Utilities-Gas	4,364	4,831	4,308	4,831
240 Travel, Conferences, Training	1,121	876	945	896
250 Repairs & Maint.-Equip.	73,464	38,813	46,197	64,474
251 Repairs & Maint.-Bldg & Struc.	3,289	5,915	8,498	4,079
252 Repairs & Maint.-Other Improv.	5,041	7,138	12,080	16,975
271 Other Outside Services	37,802	39,226	39,638	39,026
272 Office Supplies	286	193	245	233
273 Operating Supplies & Materials	11,988	10,062	10,270	9,060
275 Motor Fuels and Lubricants	11,074	16,896	11,457	16,522
299 Operating Equipment	1,600	3,655	2,120	0
TOTAL DIR. OPER. CHRGS. & SRVCS.	282,078	268,381	275,670	305,268
SERVICES AND CHARGES TRANSFERRED IN				
310 Veh. & Equip.-Labor & Overhead	5,310	6,531	6,000	6,122
311 Vehicle & Equipment-Parts	12,182	8,100	6,000	8,100
315 Building & Structure-Maint.	525	2,000	1,750	2,171
316 Street Maintenance Services	2,981	226	225	1,578
361 Forestry Services	0	298	150	298
TOTAL SRVCS. & CHRGS. TRANS IN	20,998	17,155	14,125	18,269
CAPITAL OUYLAY				
502 Office Furn., Fix., & Equip.	0	6,438	6,438	0
503 Machinery and Equipment	10,615	30,449	30,449	44,500
TOTAL CAPITAL OUTLAY	10,615	36,887	36,887	44,500
TOTAL EXPENDITURES	890,156	920,926	905,555	961,967