

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 FY2013 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 2013, the first year of a multi-year Sanitary Sewer Inflow and Infiltration Study (CIP #SS1301) began. 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 2013, effect of the drought was 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.

During FY 2013 digester tank valves were repaired and replaced.

In FY 2014, oxidation ditch aeration discs will be replaced and repaired.

PERFORMANCE MEASUREMENTS:

| Performance Measurements | Division Goal/ Objective | Actual FY 2012 | Authorized Budget FY 2013 | Estimated Actual FY 2013 | Budget FY 2014 |
|--|---------------------------------|-----------------------|----------------------------------|---------------------------------|-----------------------|
| Total Million Gallons Treated | A-1 | 1,601 | 1,400 | 1,187 | 1,400 |
| Average Million Gallons Treated Per Day | A-1 | 4.37 | 3.84 | 3.25 | 3.84 |
| Cost Per 1,000 Gallons Treated (Dollars) | A-1 | \$0.56 | \$0.66 | \$0.78 | \$0.66 |
| Dry Tons of Sewage Sludge Produced | A-1 | 398 | 400 | 420 | 410 |

NUMBER OF FULL-TIME EQUIVALENT EMPLOYEES:

| POSITION TITLE | ACTUAL FY 2012 | AUTHORIZED BUDGET FY 2013 | ESTIMATED ACTUAL FY 2013 | BUDGET FY 2014 | \$ AMOUNT BUDGET FY 2014 |
|---|-----------------------|----------------------------------|---------------------------------|-----------------------|---------------------------------|
| Southeast Wastewater Treatment Plant Superintendent | 1.00 | 1.00 | 1.00 | 1.00 | \$58,026 |
| Plant Operator | 6.00 | 7.00 | 7.06 | 7.00 | \$321,788 |
| TOTAL | 7.00 | 8.00 | 8.06 | 8.00 | \$379,814 |

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| EXPENDITURE CLASSIFICATION | AUTHORIZED | | ESTIMATED | |
|--|------------------|------------------|------------------|------------------|
| | ACTUAL FY2012 | BUDGET FY2013 | ACTUAL FY2013 | BUDGET FY2014 |
| PERSONAL SERVICES | | | | |
| 100 Employee Salary and Wages | 334,639 | 373,447 | 376,652 | 379,814 |
| 110 Employee Overtime | 32,194 | 38,107 | 19,800 | 19,815 |
| 112 Employee Premium Payments | 0 | 0 | 10,400 | 10,585 |
| 130 Employee Health Ins. Benefits | 64,514 | 76,948 | 81,706 | 80,064 |
| 131 Employee Retirement Benefits | 69,932 | 81,343 | 79,952 | 83,879 |
| 140 Employee Work. Comp. Benefits | 33,308 | 29,500 | 27,634 | 20,496 |
| 150 Special Contractual Benefits | 2,644 | 4,500 | 3,500 | 3,850 |
| TOTAL PERSONAL SERVICES | 537,231 | 603,845 | 599,644 | 598,503 |
| DIRECT OPERATING CHARGES & SERVICES | | | | |
| 220 Communications-Telephone | 1,048 | 1,680 | 1,140 | 1,200 |
| 221 Communications-Data | 0 | 0 | 0 | 480 |
| 222 Communications-Postage | 30 | 220 | 250 | 220 |
| 230 Utilities-Electric | 146,761 | 142,761 | 141,000 | 147,876 |
| 231 Utilities-Gas | 3,567 | 5,729 | 4,000 | 4,831 |
| 232 Utilities-Water and Sewer | 0 | 0 | 0 | 0 |
| 240 Travel, Conferences, Training | 1,979 | 675 | 725 | 876 |
| 250 Repairs & Maint.-Equip. | 105,400 | 52,235 | 52,000 | 63,930 |
| 251 Repairs & Maint.-Bldg & Struc. | 3,427 | 4,116 | 3,500 | 3,915 |
| 252 Repairs & Maint.-Other Improv. | 11,349 | 26,650 | 26,500 | 16,625 |
| 260 Rental Charges | 5,871 | 0 | 0 | 0 |
| 271 Other Outside Services | 18,855 | 39,226 | 39,000 | 39,226 |
| 272 Office Supplies | 340 | 193 | 250 | 193 |
| 273 Operating Supplies & Materials | 7,421 | 9,000 | 7,500 | 9,000 |
| 275 Motor Fuels and Lubricants | 15,729 | 12,208 | 10,400 | 16,896 |
| 299 Operating Equipment | 4,254 | 0 | 0 | 0 |
| TOTAL DIR. OPER. CHRGS. & SRVCS. | 326,031 | 294,693 | 286,265 | 305,268 |
| SERVICES AND CHARGES TRANSFERRED IN | | | | |
| 310 Veh. & Equip.-Labor & Overhead | 6,301 | 6,821 | 5,481 | 6,531 |
| 311 Vehicle & Equipment-Parts | 5,985 | 9,700 | 12,000 | 8,100 |
| 315 Building & Structure-Maint. | 1,488 | 1,024 | 701 | 2,000 |
| 316 Street Maintenance Services | 0 | 217 | 4,100 | 226 |
| 361 Forestry Services | 0 | 254 | 0 | 298 |
| TOTAL SRVCS. & CHRGS. TRANS IN | 13,774 | 18,016 | 22,282 | 17,155 |
| CAPITAL OUYLAY | | | | |
| 503 Machinery and Equipment | 19,434 | 13,500 | 13,500 | 0 |
| TOTAL CAPITAL OUTLAY | 19,434 | 13,500 | 13,500 | 0 |
| TOTAL EXPENDITURES | 896,470 | 930,054 | 921,691 | 920,926 |