

### Purpose

It is the mission of the O'Fallon Engineering and Public Works Department to achieve the highest possible quality of life for our residents and customers through effective planning, management, operation and maintenance of the City's miles of sanitary sewer lines and 5.6 MGD wastewater treatment facility serving O'Fallon and parts of the Village of Shiloh by all available means.

### Accomplishments

- Protected sewer mains exposed in stream banks at 15 locations and re-built a manhole in stream bank.
- Placed liners in two manholes to compare installation effort and effectiveness.
- Began negotiations with IDNR to obtain \$250,000 grant for repair of damaged sewer mains due to mine subsidence in the area of Elm and Orchard Streets.
- Reviewed plans and monitored field construction of sanitary sewer in 6 new subdivisions additions containing 203 new housing lots.
- Cleaned north sludge lagoon at main Wastewater Treatment Facility (WWTF).
- Inspected 131 sewer taps.
- Replaced 840 feet of sewer main along Oak Street from 5<sup>th</sup> Street to Dale Avenue at a cost of \$83,000.
- Installed new lift station at southeast corner of Cobblestone Ridge subdivision and put into operation 5,800 feet of force main between Cobblestone Lift Station and Thornbury Place gravity system.
- Installed 700-foot, new force main from Fairwood Hills Lift Station along Lincoln to northeast corner of Blessed Savior Lutheran Church to correct potential back-up problems along Bossler Lane.
- Made 4,653 JULIE locates of our sanitary sewer system in support of local construction and other utility emergency repairs.
- Implemented geographical information system (GIS) and computer maintenance management system (CMMS).
- Purchased a sewer inspection van.

### Goals and Objectives

- Improve reliability of the sanitary sewage collection and treatment systems.
  - Clean South Sludge Lagoon at WWTF. Estimated cost is \$100,000.
  - Complete reconstruction of sewer main affected by mine subsidence in the Elm and Orchard Street area. Estimated cost is \$350,000.
  - Line sewers along 4<sup>th</sup> Street from Hilgard to Vine, 4<sup>th</sup> & 5<sup>th</sup> Street Alley from Hilgard to Lincoln, 2<sup>nd</sup> & 3<sup>rd</sup> Street Alley from Hilgard to Lincoln, and along Georgetown from Joy to Pierce. Estimated cost is \$418,250.
- Improve administration of system and customer support.
  - Continue implementation of sewer ejector pump program to abate problems in residential basements susceptible to sewer back-ups during heavy I/I events. Budgeted cost is \$10,000.
  - Refine GIS and CMMS systems, uploading additional information to be used in inventorying and predictive maintenance efforts.
- Ensure private developer constructed sanitary sewer system that will become public

capital improvements meet City specifications.

- Inspections of capital infrastructure will continue in the subdivisions of Cobblestone Ridge, Keck Ridge, Hearthstone, Estates at Prairie Crossing and others.

**Programs and Highlights**

- The sanitary sewer program will again concentrate on alleviating sewer back-ups that occur due to excessive Inflow/Infiltration (I/I) during heavy rainfall events. Major sewer lining projects are planned as well as some I/I point repairs and continuation of the sewer ejector pump program.
- The annual program of sludge lagoon cleaning will be continued.
- Vehicle and major equipment replacements/additions proposed for FY05 are:
  - Unit #22 Backhoe, \$60,000. The unit is at the point where its reliability is suspect and repair costs are increasing. Due to the need for reliability, this unit needs replacement at this time.
  - Unit #15, ½ Ton Pickup, \$16,000. Unit #15 is currently a cargo van that was used by the Sewer Lines Division for everyday maintenance and inspections. With the purchase of the dedicated Sewer Inspection Van this aging unit needs replacing with a pickup to allow crews to respond to maintenance requirements.
  - Phase I of conversion of lift stations from float driven wet well monitoring to transducers, \$20,000. This will allow the change out of approximately 3 lift stations. Transducers are less prone to mechanical difficulties and are easier for our mechanics to adjust wet well levels.
  - ARC – corrosion protection system for clarifiers at the Waste Water Treatment Plant - \$20,000.
  - Tractor Driven Pump – main purpose for chemical mixing/algae control - \$12,000
  - Lab Equipment – microscope & PH meter - \$7,000
  - Shop Tools – air compressor, 200 piece tool set/chest, 24 volt combination set drill/saw - \$4,000
  - Tractor Replacement – replace 1985 Ford 1780 tractor/loader/mower - \$28,000
  - Repair Lemna Boat – boat used to harvest duckweed which is used for algae control. The boat needs attention to deal with corrosion that has occurred. \$12,000
  - Office Furniture at WWTF - \$1,500

**Organizational Chart**

