



Below: The Derek R. Guthrie Water Quality Treatment Center will undergo significant redesign as part of the Consent Decree requirements.

Proceeding with DRGWQTC Flow Equalization and Treatment Project final design

As part of the 2005 Consent Decree requirements, MSD obtained approval last July from the Kentucky Department of Environmental Protection and the United States Environmental Protection Agency for the Interim Sanitary Sewer Discharge Plan (ISSDP). This plan identifies projects that will considerably decrease unauthorized discharges in four areas of the collection system: Beechwood Village, the Hikes Point area, the Highgate Springs Pumping Station and the Southeast Diversion Structure as well as throughout the Mill Creek and Pond Creek sewer systems. Implementation of these projects will cause significant, additional wet weather flow to be conveyed to the Derek R. Guthrie Water Quality Treatment Center (DRGWQTC).

It is anticipated that this project will be divided into the following four packages:

- Flow Diversion Structure,
- Pumping Package,
- Wet Weather Treatment Facility Package, and
- Equalization Basin.

MSD is moving ahead with the final design. The Consent Decree requires that the wet weather facilities become operational by December 31, 2011.

As a result, Board members approved contracting with CH2M Hill and HDR, Inc. to determine the DRGWQTC Flow Equalization and Treatment Project's final design in the amounts of \$2.85 million and \$1.55 million, respectively.

Beechwood Village Sanitary Sewers East Project

The Beechwood Village area (east and west) comprises 577 residences that are served mainly by dual sanitary sewer lines running along both sides of the streets. The property owners within Beechwood Village East, which constitutes 328 homes, experience basement backups from the sanitary sewer. Whenever rain is predicted, MSD's Infrastructure and Flood Protection staff places pumps in five locations for pumping the sewer system to nearby drainage outlets to protect basements in the area. The sewer system—constructed of clay pipe—is in very poor condition. Approximately 75 percent of these houses are equipped with basement sump pumps because of high groundwater. Many of the pumps release groundwater directly into the sanitary sewer system.

The MSD Board recently allocated \$3,147,740 for T&C Contracting to perform the Beechwood Village Sanitary Sewers East Project. Its fundamental goals are eliminating the pumped sanitary sewer overflows (SSOs) in the project area, and decreasing the amount of clean groundwater entering the sanitary sewer system. Consequently, the existing sewer lines will be rehabilitated, and every property service connection will be rebuilt. In addition, the internal plumbing of each home will be modified, so that clean water and wastewater will exit the house separately. A new 18-inch relief sewer also will be installed to furnish wet weather capacity for the Sinking Fork and Woodlawn Park Interceptors.



In order to ensure wet weather capacity, a preliminary engineering report proposes the following alternative for the DRGWQTC:

- replacement of the raw-sewage pumps,
- a new raw-sewage screening/diversion facility,
- a new wet weather pumping station,
- more grit basins,
- a short-term detention basin,
- an equalization basin,
- an expanded contact stabilization treatment process,
- additional clarifiers,
- expansion of the chlorine basins, and
- modified and expanded chemical-storage and feed systems along with a new flow diversion structure (located off-site) on the new Northern Ditch Interceptor Diversion.



Entrance to Beechwood Village.



MSD

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de Lunes a Viernes)

Upcoming Events

February 5

DiverseWorks for You Certification Orientation

9 a.m., 700 W. Liberty

February 9

MSD Board Meeting

10 a.m., 700 W. Liberty

February 23

MSD Board Meeting

10 a.m., 700 W. Liberty

MSD Milestones

Welcome to MSD:

David Brown, Network Analyst

Aaron Starks, Utility Trainee

Joseph Thomas,

Project Administrator

Varick Tucker,

Employee Relations Administrator

Congratulations on your promotion:

Lori Rafferty,

Development Engineer

Denzil Whalin, Utility Worker II

Welcome to a new role:

Dana Scott, Engineering Division

Certifiable Success

The following business has received certification from MSD's DiverseWorks program.

Cannon and Cannon, Inc. (WBE)

Civil engineering; environmental engineering; mapping; surveying; and transportation:

Angela Cannon, (865) 670-8555.

Project DRI progress

Drainage Response Initiative projects

Project DRI currently is in the process of resolving drainage problems throughout the community.

The following projects are ready for construction.

1 Dale Avenue

E. T. Huff Construction was awarded the \$56,640 Dale Avenue Drainage Improvement Project, which will resolve three drainage requests and benefit 32 additional properties. Drainage pipe, yard drains and concrete driveway aprons will be installed along the 500 block of Dale Avenue—in District 21—to eliminate standing water along the street and front yards.

2 Girard Drive

This project in District 7 will resolve several drainage issues along Girard Drive, Woolrich Road and Abbeywood Road. TSI Paving was awarded the \$127,085 project, which will address eight service requests and benefit 53 properties by installing roadside pipe and yard drains and replacing driveway aprons.

3 Meyers Lane

A \$54,185 project awarded to Construction Solutions will address seven service requests and benefit 20 properties in District 12. This project will resolve the roadside standing-water issues along Meyers Lane.

4 Seaforth Drive

Construction Solutions was awarded a \$61,688 project in District 14 to resolve standing-water issues along Seaforth Drive. The project will address five service requests and benefit 31 properties.

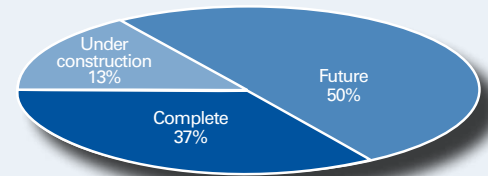
Moyle Hill Road Area Lining Project



MSD's Board has allocated \$140,910 for Insituform Technologies to perform the contracting work for the Moyle Hill Road Area Lining Project, located in the Cherokee Park area near the Douglass Loop. The existing lines are made of clay pipe, which has deteriorated and started to fail. Recently, MSD completed an emergency contract in this area in order to repair failures in the pipe. In the course of that project, more lines requiring restoration were identified. This project utilizes a specialized Cured in Place Pipe process, which involves heating a resin-saturated felt tube to form a new pipe inside the old, existing pipe.



Project DRI Phase 3



Project DRI, a partnership between Louisville Metro and MSD, has improved drainage throughout the Metro area.

Fifty percent of the projects in Phase 3 are completed or under construction.

Safety first

MAPS for trench shoring

Board members recently authorized the Executive Director to execute a contract with Kentuckiana Trench Shoring for \$90,580 to buy 10 high-speed shore modular aluminum panel shield (MAPS) systems. Such equipment will protect employees working five feet or deeper in a trench or excavation as required by the Kentucky Occupational Safety and Health Administration.

Confined space monitors

MSD employs confined space monitors as components of its safety program and to comply with Occupational Safety and Health Administration regulations. Current monitors are calibrated monthly at each regional water quality treatment center and the Central Maintenance Facility. The Insurance and Loss Control Department assessed the options to upgrade the monitors and calibration stations to expand the response for including chlorine and sulfur dioxide spills in Metro Operations. The Board endorsed \$172,369 for purchasing confined space monitors, pumps, calibration stations and other related equipment from Orr Safety, along with a four-year warranty for an additional \$65,000.



Engineering Design and Construction

- **The Jeffersontown Water Quality Treatment Center** historically has experienced wet weather flow problems. A study proposes replacing a large section of an interceptor sewer in Jeffersontown Industrial Area #3 and recommends rehabilitation on a smaller part of this same interceptor to decrease inflow/infiltration. MSD has negotiated with Jacobi, Toombs and Lanz (JTL) for developing construction plans and contract documents for this work. Recently, the MSD Board approved revising the JTL professional services agreement in the amount of \$73,000 to a cost ceiling of \$323,000 to include design effort.
- In October 2008, the **Northern Ditch Interceptor Flow Control Structure's** site layout and concrete design were awarded to HDR Engineers. MSD's Board has endorsed modification of the HDR, Inc. professional services contract in the amount of \$31,768 to a new limit of \$74,519 for including all the structure's mechanical and electrical controls.



The Northern Ditch Interceptor will be constructed along the channel beginning east of National Turnpike and continuing to Outer Loop.

- In November 2008, the Board authorized a **Recapture Agreement** for building infrastructure to eliminate MSD's Berrytown, Chenoweth Run and Starview package wastewater treatment plants (WTPs), as well as to furnish the opportunity for elimination of the privately owned Middletown WTP. In January, the Board allocated \$496,377 for Mindel, Scott and Associates to provide design services for the Middletown Recapture Project.

MSD Board names contractors for two projects at Morris Forman Water Quality Treatment Center

- **Two condensate accumulator tanks** will be installed in the Morris Forman Water Quality Treatment Center (MFWQTC) Digester Control Building—directly under the gas-collection system. This will allow condensate to drain by gravity to the tanks and then to the existing floor drain piping. In addition, the original equipment (the manual drain traps) in the dryer area will be replaced with 10 automatic high-pressure drip traps that will be connected with the building drain piping, which will eliminate the need for constant manual draining of the system. This will prevent moisture buildup and decrease future corrosion. MSD's Board members recently awarded the MFWQTC Digester Gas Condensate Removal Project contract to Hussung Mechanical for \$259,849.



The Digester Control Building at the Morris Forman Water Quality Treatment Center will receive two condensate accumulator tanks to control the collection of condensation and decrease corrosion.

- The MFWQTC **decant tanks** serve as holding tanks for the thickened waste activated sludge (TWAS) that is removed from the secondary treatment process. Next, the TWAS is blended with digested, primary sludge and then processed in the Louisville Green production area. Both decant tanks, which measure 61 feet in diameter, were built in 1958 as part of the original plant. Such corrosive gases as hydrogen sulfide have deteriorated the concrete on the underside of the tank covers since that time. The reinforcing bars have been exposed and are totally worn away in some places.

In January, the MSD Board allocated \$393,700 for Schnell Contractors to perform the MFWQTC Concrete Repairs Phase 2 Decant Tanks Project. This work includes sandblasting of the deteriorated areas for the removal of loose material, the installation of carbon fiber reinforcement bars and the application of new epoxy concrete for restoring structural stability. Corrosion-resistant epoxy coatings will be applied to all concrete above the surface level of the liquid inside the tanks and to the top surface of the covers to keep water from seeping into the concrete from above.

New agreement with Solae

Solae LLC—along with its corporate predecessors, Protein Technologies International (PTI) and Ralston Purina—has been MSD's largest customer since the 1970s. Solae revenues have accounted for between 2.4 percent and 11 percent of MSD's annual wastewater revenue for the past 15 years.

MSD began contracting with PTI in 1998 to treat PTI's excess biochemical oxygen demand (BOD). During the last three-year period, which expired in December 2008, MSD received \$73 million from Solae. The contract specified that MSD would accept, transport to its treatment centers and treat amounts less than or equal to 19 million pounds per year of excess BOD from PTI. Solae's BOD loadings have averaged 13.5 million pounds for the last three MSD fiscal years.

At their January 12 meeting, MSD's Board members endorsed a new three-year service agreement between MSD and Solae. According to the terms of this agreement, Solae's base charge will increase by 6.5 percent annually, and MSD will receive about \$8.8 million during the three-year period.

Solae's benefit from the arrangement is the ability to control its production costs within a range of yearly BOD consumption that corresponds with its historical plant output. MSD benefits from a guaranteed cash flow for the next three years.

Customers First

"I cannot thank MSD enough for the great service that your staff and crews have provided. Please extend my thanks to **Brian Britt, Kim Brooks, Leila Cunningham, Keith Gallai, Stephon Gazaway, Dave Gittings, Jessie Johnson, Eric Kalbhin, Anthony Linton, Patricia Page, Terry Richardson, Angel Smith** and **Tony Morrison.**"

— Ms. Susan Flaherty, Jeffersontown

"I would like to commend **Robert Caradine, Darryl Coleman, Brian Hess** and **Alonzo Spencer** for a job well done. They are an excellent team and are to be commended."

— Evelyn Palmer, Graymoor-Devondale



MSD

Louisville and Jefferson County
Metropolitan Sewer District

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Board Actions

- Board members recently allotted \$123,098 for an annual maintenance agreement with **SAP Public Services for its R/3 Software updates and technical support**. This software was implemented in 1999 to run business and financial applications throughout MSD.
- In January, the MSD Board allocated \$65,000 for purchase from the Bobcat Company of **one Bobcat with attachments and accessories**. This flexible construction equipment will accept numerous implements and attachments utilized in general daily maintenance jobs on the flood levee system, flood pump station intakes and drainage channels.
- The Board in January approved a revised, results-oriented, written MSD **Affirmative Action Plan (AAP)** for fiscal year 2008-09, which reflects current Department of Labor, Office of Federal Contract Compliance and Equal Employment Opportunity Commission requirements.
- MSD's Board recently authorized the Executive Director to negotiate and execute contracts or amendments for providing **Construction Inspection Technician services** from February through June 2009 with Bostech; Dunaway Engineering; Heritage Engineering; Jacobi, Toombs and Lanz; O'Brien & Gere Engineers; and Rangaswamy & Associates.

Locating MSD underground facilities



BUD markings indicate the location of underground utility facilities.

Each month, MSD receives about 5,000 "Before You Dig" (BUD) requests to locate its underground facilities as required in Kentucky Revised Statute 367.4901.

MSD joined a utility partnership composed of AT&T, Insight Communications, Louisville Gas and Electric Company and the Louisville Water Company

to seek one contractor to perform their locating services at the best price. Even though a joint request for proposal for locating services was issued, each utility will need to execute an individual contract with the selected contractor because of the unique nature of these businesses.

In January, the MSD Board allotted \$430,856 per year for Central Locating Service (CLS) to locate MSD underground facilities. CLS is one of the largest contract underground utility locating companies in the country and operates in 16 states. MSD's first contract with CLS, which began in December 2005, lasted for three years. CLS performed its service of locating underground facilities in a very timely manner, which resulted in a reduction in damage to other utility company assets as well as to MSD facilities.