

April 12, 2000



## Morris Forman Wastewater Treatment Plant

# Largest MSD contract ever to eliminate odor, save money at treatment plant

An innovative plan to handle solid by-products of the wastewater treatment process at Morris Forman Wastewater Treatment Plant (MFWTP) will nearly eliminate a major odor source and save the plant more than \$4 million in operation and maintenance costs.

MSD's Board approved a \$64.6 million construction project, the largest contract in MSD's history, to design and build the new solids handling process. When completed in less than three years, solids at the plant will initially be treated by an anaerobic digestion process and blended with secondary solids before they are dewatered and dried. The dried solids can be used as a fertilizer, as the Milwaukee Metropolitan Sewerage District has successfully done since the 1930s.

The new system will replace the plant's low-pressure oxidation or Zimpro system, which conditions and dewater solids before they are sent to a landfill for disposal. The existing system is the main source of odors from the Morris Forman plant, according to MFWTP Area Team

Leader Saeed Assef.

Although the initial capital costs for the project are significant, Assef said MSD would rapidly recognize savings from the new system. The new process will reduce the volume of solid waste generated at MFWTP and save on landfill disposal charges. Total cost for each dry ton of solids now treated at the plant are about \$288 per ton. Under the new process, that cost drops to about \$145 per dried ton.

Because the handling and treatment of solids are performed in a completely enclosed area, Assef said the new process was the most odor-free option available.

Robert Lowndes, vice president of Black & Veatch/J.S. Alberici Joint-Venture, the firm that was awarded the project contract, said the new process will use existing buildings at the plant to house dryers and other components, while promoting reuse of the dried solids as fertilizer. "That's the beauty of this project,"

Lowndes said. "It uses existing structures and provides a more beneficial use of biosolids than landfill disposal."

While the sewer district in Milwaukee has been marketing its biosolids for more than 60 years under the brand name Milorganite, MSD is exploring options to market the pellet-sized biosolids that will result from the new process. "Our best opportunities may be teaming with area fertilizer manufacturers," said Executive Director Gordon Garner. "We're not in the fertilizer marketing business, but it is possible that our product may be sold to manufacturers as a base ingredient for their products," he said.

Assef noted that the Louisville/Jefferson County Metro Parks Department purchases Milorganite for use in the more than 12,000 acres of city and county park greenspace. "This new process will produce fertilizer pellets that can be marketed for public or private organization use, or that can be recycled," he said. "Either way, our disposal and storage volumes-and our costs-will be substantially reduced."



## Nearly one-third of project work to be performed by minorities and women

When work begins under the largest design/build contract in MSD's history, some 30 businesses owned by minorities and women will be there to help.

Black & Veatch/J.S. Alberici Joint-Venture, the firm awarded the contract to design and build the alternative solids process at Morris Forman Wastewater Treatment Plant, plans to subcontract about \$18 million with businesses owned by women and minorities.

That means 16 minority-owned companies will be awarded subcontracts totaling more than \$13 million and 14 woman-owned firms will be awarded more than \$5 million in subcontracts. Minority-owned businesses will perform roughly 20 percent of the work and woman-owned companies will perform about eight percent.

"This exceeds MSD's goals of subcontracting 15 percent of major contracts to minority-owned businesses and three percent to woman-owned enterprises," according to Deborah J. McDaniel, DiverseWorks Program administrator. "We're especially pleased that all but three of the 30 firms are local businesses," McDaniel said.

Throughout the project design and contract negotiation, McDaniel said Black & Veatch/J.S. Alberici Joint Venture had looked for partnership opportunities with minority- and woman-owned businesses. "Their team is clearly committed to defining scopes and seeking other contracting opportunities for women and minorities, which could result in as much as 30 percent of the total contract value being spent with minority- and woman-owned businesses" McDaniel said.

Through the DiverseWorks program, MSD certifies minority- and woman-owned businesses, invites them to bid on contracts and helps them learn how to do business with MSD and other large companies.



MSD

700 West Liberty  
Louisville, Kentucky 40202  
502-540-6000



## Wet Weather/Water Quality Area Team

### Eight remediation projects planned

Keeping MSD's aging sanitary sewers operating requires on-going maintenance and repairs that reduce the amount of stormwater that enters sewers. That's the goal of a yearlong contract for eight sanitary sewer rehabilitation projects scheduled over the next 12 months.

"Most sanitary sewer pipes were built in the 1960s and over time cracks have developed, manhole covers have become defective and sump pumps send stormwater from private properties into the sewer system," explained Wet Weather/Water Quality Area Team Leader Roddy Williams. "Together these factors contribute to sanitary sewer overflows, requiring pumps to remove water from sanitary sewers during heavy rains, and causing sanitary sewer backups in basements."

During the past two years, MSD has completed seven sewer rehabilitation projects and initiated two others with a total value of about \$3 million. Under a new plan approved by MSD's Board, sewer rehabilitation projects for the coming 14 months will proceed under a blanket contract with Insituform Technologies, Inc. of Chesterfield, MO. According to Williams, the plan will save about 80 days per specific work project and about 25 percent in costs, compared to awarding individual contracts.

Sewer rehabilitation work includes replacing old sewer mainlines and property service connections with a process that creates new lines inside of existing pipe, and properly sealing manholes. Work also includes disconnecting sump pumps that send stormwater into sewers.

By keeping stormwater out of sanitary sewer lines, Williams said the system performs more efficiently and with fewer problems, like basement backups.

Sewer rehabilitation projects under the contract are scheduled in these neighborhoods: Beechwood Village, middle fork of Beargrass Creek, Hikes Point, Buechel Branch, Cedar Creek, McNeely Lake and the Pond Creek watershed. Costs to complete these projects will total less than \$4 million, Williams said.



### SAP work earns pair 'Exceptionally Achieves' rating

Making sure that a new computer program does what it's supposed to is just part of the job for most information technology personnel. But when the software impacts a company's financials, plant maintenance, materials management, project systems, human resources and payroll, successful implementation becomes more critical.

When MSD purchased the SAP R/3 software in 1998, Applications Developer Laura Incorvia was appointed to oversee the Information Services portion of implementation. Applications Analyst Barbara Toon was tasked with implementing two key components, the Human Resources and Payroll modules.

The assignments, with aggressive deadlines, were daunting. Incorvia and Toon showed right away their dedication to the project, according to Applications Support Administrator Judy Storer. "They invested a large number of hours, spending lots of time away from their families, to ensure the success of this project," Storer said. "We are convinced that this software would not be working for MSD today without their extraordinary efforts."

On the recommendation of the Personnel Committee, MSD's Board approved the Exceptionally Achieves performance rating for Incorvia and Toon.



Upcoming Events

Apr. 24 - MSD Board Meeting, 10 a.m., 700 W. Liberty St., first floor

Apr. 26 - Garydon Dr. Sewer and Drainage Project, 7 p.m., Fern Creek Elementary cafeteria, 8815 Ferndale Rd.

May 1 - Public Meeting, Valley Trunk Collectors Sewer Project, 7 p.m., Southwest Government Center, 7219 Dixie Hwy.

May 9 - Public Meeting, Floyds Fork Interceptor and Pope Lick Force Main and gravity Sewer projects, 7 p.m., East Government Center, 200 Juneau Dr.



## Floyds Fork watershed area

### Sewer projects lead to new treatment plant

Construction is set to begin on a pair of projects that will link the new Floyds Fork Wastewater Treatment Plant (FFWTP) to main sewer lines and collectors.

Phase 2 of the Pope Lick Force Main and Gravity Sewer will provide the first wastewater flow to FFWTP, scheduled for completion this year. Along with construction of interceptor sewers and force mains, the project will provide the force main from the Pope Lick Pump Station, which is now being built. It also will allow for the diversion of wastewater now treated at Copperfield, Cross Creek and Tucker Station wastewater treatment plants to the new Floyds Fork plant.

The initial phase of the Floyds Fork Interceptor is the first section of gravity interceptor from FFWTP, terminating at Midland Golf Course.

Reynolds Incorporated, Orleans, IN, will construct both projects at a cost of \$2.8 million.