

# UP

News about activities and developments at MSD

## date

February 28, 2001



Floyds Fork watershed area

## Floyds Fork facility now in service

### Small treatment plants to be retired in next two years

MSD's newest wastewater treatment facility in eastern Jefferson County began processing wastewater on February 16, 2001.

The initial flow, at an average of

Leader Vicki Coombs.

Two to three MSD employees will staff the plant during the day seven days a week. Telemetry is used to monitor its operations from MSD's

Morris Forman Wastewater Treatment Facility, which is staffed around the clock.

In early March, the second phase of wastewater flow should arrive at the plant when the Pope Lick Pump Station and Force Main are fully connected.

This will divert an average of about 338,000 additional gallons of wastewater daily that is now treated at the Kirkham Trace and Cross Creek wastewater treatment plants.

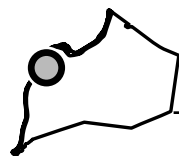
Diverting wastewater from smaller treatment plants was one of the goals of the Floyds Fork facility since construction began in 1998.

*(continued on back)*



The Floyds Fork Regional Wastewater Treatment Facility (shown here under construction in August 2000) was built with the intent of replacing 11 existing neighborhood wastewater plants in eastern Jefferson County. The Floyds Fork facility began treating wastewater earlier this month.

150,000 gallons a day, is coming to the Floyds Fork Wastewater Treatment Plant from the Copperfield Wastewater Treatment Plant by way of the Pope Lick Gravity Sewer, according to Floyds Fork Area Team



Morris Forman Wastewater Treatment Plant

## Clarifier rehab to improve efficiency

When wastewater enters the secondary treatment process at MSD's largest treatment facility, the machinery gets quite a workout. Over time, coating that protects moving parts dissolves, causing them to corrode and weaken.

MSD's Board has approved a project that will repair and refurbish parts that operate the 20 clarifiers that were installed in 1974 when secondary treatment was added at the Morris Forman facility.

"This equipment is located in clarifier tanks that are more than 130 feet in diameter," according to

Morris Forman Area Team Leader Saeed Assef. "Where possible, the metal parts will be recoated, but those that have corroded will be replaced."

*The clarifiers were originally installed in 1974*

Assef said MSD Maintenance personnel recently rehabilitated one of the clarifiers. The new project will completely repair and refurbish the remaining 19 clarifiers and refurbish the access bridge support structures for all 20 units.

The work will cost about \$2.28 million and will be completed by Building Crafts, Inc.

## Electricians' idea saves pumps

It was like a recurring, expensive nightmare. Two pumps that move water to heat-generating boilers at the Morris Forman Wastewater Treatment Facility kept burning out. One of them had to be replaced, at a cost of \$22,222; the other needed major repairs often.

A pair of master maintenance electricians at the plant—Larry Knoop and Waldemar Mendelsberg—wondered if the pumps could be turned off when the water supply was low or completely interrupted. They suggested installing water flow switches on the pumps that would turn them off when there wasn't enough water to keep them running smoothly.

The switches cost \$285 each.

Since they were installed late last year, the pumps automatically



turn off when water pressure is low and no major repairs have been required. It also hasn't been necessary to purchase new pumps.

In addition to saving MSD

the cost of ongoing pump repairs and buying replacement pumps, Knoop and Mendelsberg received \$2,193.67 each for their idea through MSD's Suggestion System.

Since 1988 MSD has used the Suggestion System to encourage employees to contribute ideas that promote efficiency, economy and operational improvements.

Employees whose ideas that are implemented receive cash rewards equal to 10 percent of the first year's savings from the suggestion, minus any cost to implement it.

"We believe that no one can better solve a problem than those who work around it every day," said Human Resources Director Michael Crawford. "Larry Knoop and Waldemar Mendelsberg saw a problem and recommended a solution. Their suggestion has been applied and it is working."



MSD

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## Step taken toward eliminating odor



A new way to treat solid materials in wastewater at the Morris Forman Wastewater Treatment Facility took a major step in late January.

Work on one of four anaerobic digestion tanks was completed and a giant crane topped it with a new 110-foot diameter steel cover weighing nearly 100 tons (*see photo above*). The new process will 'digest' solids in four oxygen-free tanks while producing clean-burning methane gas. Digested solids will be

dewatered and dried in an enclosed system, powered by the methane gas, and the dried solids can be recycled or used as fertilizer.

The process will replace the current system at the Morris Forman facility, which has caused odor problems since it was installed in the mid-1970s. The new \$65-million process is being designed and constructed by Black & Veatch/J.S. Alberici Joint Venture. Work should be completed in 2003.

### **Floyds Fork facility**

*(continued from front)*

Eventually 11 neighborhood wastewater treatment plants in eastern Jefferson County will be removed from service as wastewater is diverted to the Floyds Fork plant, Coombs said.

During the next two years, plans call for diverting wastewater from Running Creek, Ashmoor Woods and developments along U.S. 60 near Flat Rock Road to the Floyds Fork plant.

Coombs said the Floyds Fork facility was built with energy conservation and environmentally friendly features. The administration building is cooled and heated by a geothermal system that also saves on cost. The plant uses a biological process instead of chemicals to remove phosphorus from the wastewater.

To encourage and accommodate visitors at the facility, an environmental education center was developed in conjunction with Jefferson County Public Schools. The entire facility also

is accessible to visitors and employees with physical handicaps.

During construction, steps were taken to protect the water quality of Floyds Fork, which is among the highest of all Jefferson County streams. Coombs said the facility was designed to meet an 80 percent reduction in sediment that would normally leave the site during construction. An on-site sediment basin removed sediment from runoff water via a large diversion channel. To stabilize the diversion channel and Floyds Fork, a combination of vegetation and turf reinforcement matting were used, Coombs said.

At a cost of more than \$15 million to design and build, the Floyds Fork facility is designed to treat 3.25 million gallons of wastewater a day.

Designed and constructed for MSD by Judy Construction Co. with Quest Engineers as a major subcontractor, the Floyds Fork plant is the first municipally owned design/build wastewater treatment facility in Kentucky.

*Coombs said the Floyds Fork facility was built with energy conservation and environmentally friendly features.*



Mill Creek watershed area

### **Johnsontown project ready to build**

Construction to extend sewer service along Johnsontown Road near the Riverport will begin soon.

When completed late in 2001, about 194 properties will be connected to sanitary sewers.

Indianapolis-based TC Contracting, Inc. will construct the project for about \$1.1 million.

### **Upcoming Events**

#### **March 6**

*Public meeting, Cane Run West (CR-1W) Sewer Project, 7 p.m., Southwest Government Center, 7219 Dixie Hwy.*

#### **March 12**

*MSD Board meeting, 10 a.m., 700 W. Liberty, first floor*

#### **March 14**

*Public meeting, Kramers/Crums Ln. (KC-2C) Sewer Assessment, 7 p.m., Southwest Government Center, 7219 Dixie Hwy.*

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