

OPEN CHANNEL NEWS

MCES Industrial Waste & Pollution Prevention

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Metropolitan Council Environmental Services

Metropolitan Council Environmental Services (MCES) is one of three divisions of the Metropolitan Council, a regional public agency working for the seven-county metropolitan area.

MCES provides water resources management services to ensure that:

(1) sufficient sewer capacity exists to serve planned development, and sufficient capital investments are made to preserve the region's water quality;

(2) wastewater collection and treatment services are provided in a cost- and quality-competitive manner for 103 communities and more than 800 industrial clients;

(3) local plans provide for adequate water supply and nonpoint source pollution prevention in the region; and



Dry creek bed at Bevens Creek in Carver County

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Low Flows Impact Revenue Estimates

It's spring and although it should be wet, dry conditions are all around us. Lake levels are down, creek beds are dry, and deep below the surface where the sanitary sewers lie, it's dry as well. This dry condition is affecting our revenue. Typically, living in the land of 10,000 lakes and wetlands all around, we experience what we call I/I, inflow and infiltration, into our sewer system. This is clean water that gets into our system by way of rain leaders, sump pumps, cracked pipes, leaky joints, maintenance holes, and the like, from the local collection systems. We factor this into our revenue projections when we estimate community flows and determine the annual Municipal Wastewater Rate—a fixed cost per 100,000 gallons of wastewater. We then charge communities based on actual flows collected and treated. With the ground water table down, the I/I is also down. This means that the actual flows from communities are less than we estimated and so is our expected revenue.

MCES has a reserve account to balance the budget when actual flows come in below expectations. When we use reserves, however, we must replenish the reserve fund through revenue collected in following years. Also, in addition to flow decreases resulting from dry weather, other flows are down somewhat. Causes include water conservation practices, low-flow plumbing fixtures, and the removal of cooling water discharge from the sanitary sewer – all of which MCES encourages. The result will be lower flow projections for future years, and this contributes to the calculation of the municipal wastewater rate as well as industrial rates such as strength charge and load charges. An Industrial Waste Customer Forum will be held (please see inside article) to discuss the 2005 MCES budget and rates and to receive your input on this matter.

Important Dates:

June 10, 2004 - Industrial Waste Customer Forum

June 22, 2004 – Public meeting to discuss LWH load charge changes

July 15, 2004 – All Liquid Waste hauler reports are due at MCES offices

July 30 2004 – All Regular & Special Discharge quarterly and semi-annual reports due at MCES offices



MCES liquid waste hauler disposal site at 3rd and Commercial in St. Paul

News Briefs

PACS 2000

PACS 2000, or POTW Administration & Compliance System 2000, is the new business management system for the MCES Industrial Waste & Pollution Prevention Section. It is replacing several data management systems that were developed in-house. PACS 2000 is currently running along side the existing system and is expected to go "live" in May.

Dental Amalgam Separator Program

The Dental Amalgam Separator Program is a joint effort by MCES and the Minnesota Dental Association (MDA) to reduce the amount of mercury-containing dental amalgam entering the regional wastewater collection and treatment system. The program ensures that amalgam separators are installed and that all dental office amalgam waste is managed properly in the metropolitan area and throughout the state. The program was launched January 2003, and the target date for installation of the amalgam separators is February 1, 2005. To date, 70 percent of the metro-area clinics have committed to the installation of the separators and 20 percent have completed installations.

MEI Award Finalist

Each year, the Minnesota Environmental Initiative (MEI) recognizes innovative projects that exemplify an organization's commitment to partnership and environmental outcomes. This year the Dental Amalgam Separator Program, described above, is one of three finalist in the category of Public Sector Environmental Management Excellence. Finalists will be recognized and winners will be announced at an awards event being held May 6, 2004. <http://www.mn-ei.org/index.html>

MCES WWTPs win Awards

Six MCES WWTPs earned Certificates of Commendation at the Minnesota Pollution Control Agency's (MPCA) Wastewater Treatment Facility Operational Award Program. The Blue Lake, Empire, Hastings, Rosemount, St. Croix Valley and Seneca Plants met every one of the thousands of clean water compliance measures required in their permits during a 12-month period that ended in September 2003.

Excellence in Management Recognition

MCES has received an "Excellence in Management" award from the Association of Metropolitan Sewerage Agencies (AMSA). The award recognizes public wastewater utilities that have successfully implemented progressive management initiatives that address the wide range of management challenges facing the clean water community. MCES was selected for its significant efforts over the past several years. Key among these efforts was an \$80 million reduction in costs to MCES customer communities from 2000-2002, achieved through operational changes and workforce efficiencies.

System Wide Septage Management Study

MCES has nearly completed a comprehensive System Wide Septage Management Study that has been under way since early 2003. The purpose of the study is to evaluate the current Septage Management Program, address problem areas, and develop a future plan for MCES acceptance of septage and other hauled waste.

The current program was adopted in 1985 to regulate septage discharge to the Metropolitan Disposal System, designate and approve adequate sites for disposal, and collect load charges. The current program allows liquid waste haulers to discharge waste to 10 designated disposal sites located throughout the metro area. Two sites are located at MCES wastewater treatment plants and the other eight sites are located along or near MCES interceptor lines.

Problems identified with the current program are occurrences of sewer corrosion and odors downstream of disposal sites, excessive sedimentation in downstream sewers, lack of controlled access and security at many sites, and inadequate means of verifying discharge volumes and load contents.

A proposed plan recommends that all sites accepting liquid wastes have controlled access and a means for recording, sampling, and measuring load volumes, and that disposal sites be located at MCES wastewater treatment plants unless provisions are made for adequate dilution to minimize sedimentation, odor, and corrosion.

Construction of a prototype receiving station at the Empire WWTP will begin this year and is expected to be in operation in 2005. If this facility provides adequate protection of the interceptor system, it could be a model for other receiving stations within the system, particularly in the northern suburbs.

A final report, with a recommended plan, will be completed soon. A public meeting will be held to present the study findings and plan, and obtain comments from interested parties. Then the report and plan will be considered for adoption and implementation by the Metropolitan Council. Note that load charge rates for hauled waste may be changed by the Council under a separate action (see back page).

Industry Evaporates MCES permit

Parker Hannifin Corporation in Chanhassen installed an evaporator system to treat its wastewater discharge and eliminated the need for an MCES Industrial Discharge Permit.

Parker Hannifin is a machine shop specializing in integrated hydraulic valves. Their process wastewater consists of spent coolants, mop bucket water, and some tumbling wastes. Before switching to the evaporator system, the company rented a reverse osmosis (RO) system to remove oil from their wastewater prior to discharge. The recycled water from the RO system was sent down the drain and the oil waste was put in drums and shipped out each week.

With the new evaporator system installed, all drains in the production area are closed off. All wastewater produced is transported to the treatment area by way of a portable pump and contained in a holding tank. The wastewater from the holding tank is batch dumped into the evaporator. Over 90 percent of the wastewater fed into the system is evaporated. The remaining 10 percent waste is put in barrels and shipped out. Nothing is discharged to the sanitary sewer. The barreled waste contains enough BTU content to be used as a fuel additive and is, therefore, very inexpensive to dispose of.

According to Jerry Hoffer, the facility manufacturing engineer manager, the new system has been in operation since October 2003 and has already paid for itself. The company went from discharging 869,200 gallons of process wastewater in 2002 to zero gallons so far in 2004. They have reduced the number of barrels of waste shipped each month and reduced the cost per barrel. There is very little staff time involved in operating the system, no chemicals to be added, no testing and no permitting. Parker Hannifin is successfully evaporating their wastewater discharge and has evaporated their MCES discharge permit as well!



Evaporator installed at Parker-Hannifin Chanhassen facility

Industrial Waste Customer Forum

The fourth Industrial Waste Customer Forum will be held on Thursday, June 10, 2004, at 8 a.m. in the MCES meeting room. The meeting room is at the Metro 94 Business Center, 455 Etna St., Suite 32, St. Paul. All customers holding MCES industrial discharge permits are invited. Please RSVP before May 28 by calling 651-602-4711 and leaving a message. This forum will focus on the 2005 budget and rates, and will include other topics of interest.



First IWPP Technician Retires

John Lechtenberg was the first MCES industrial waste technician and is the first full-time Industrial Waste staff to retire. He retired April 6, after 32 years of service.

John's career at MCES began in August 1971. The agency was then known as the Metropolitan Sewer Board. John was hired to work in the lab at the South St. Paul WWTP, which has since been converted to a lift station. After a few years experience at South St. Paul, John moved on to the main lab at the Metropolitan WWTP. Then in 1976, when the industrial waste monitoring program was just getting started, John was designated as the first industrial waste field monitoring technician.

In looking back over his 32 years, John made the rounds to the far corners of the metro area. He became familiar with a wide variety of industries and became proficient at monitoring in every possible situation. He has seen a lot of change both in the industries themselves, from before pretreatment to the advanced treatment we have today, and in the equipment and methods we use to monitor industries.

We thank John for breaking new ground and paving the way for the technicians that followed him. We thank him for the years of hard work and commitment to MCES and the environment, and we wish him an enjoyable retirement.

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MCES,

Industrial Waste &
Pollution Prevention Section
230 East 5th Street
St. Paul, MN 55101-1626

Leo H. Hermes
Industrial Waste &
Pollution Prevention Section
Manager

For further information on
Open Channel News
Contact:
Maggie Lundell / 651-602-4769

For general information on
the Industrial Waste &
Pollution Prevention Section contact:
Pat Fonseth / 651-602-4703

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Load Charge Rates – Public Meeting on June 22

MCES is considering recovering the full cost of treating hauled waste in order to ensure that each recipient of waste treatment services is charged in proportion to the cost of service provided. To do this, MCES is proposing some changes to the methodology used to determine load charges.

Debt service, which originates from capital expenses for new facilities, is currently not included in the strength component of load charges. The strength loading of hauled waste increases MCES capital costs, and therefore it is proposed that debt service be included in the calculation of all load charge rates.

MCES also incurs strength-related costs to operate our interceptor system such as sewer cleaning, repairing damage from corrosion, and most recently odor control. Because of this, it is proposed that interceptor operation and maintenance costs be included in the strength component of all load charge rate calculations.

It is further proposed that the flow equivalence factor (currently being phased out) be eliminated from the load charge rate calculation.

And finally, it is being proposed that, as construction of new or upgraded hauled waste receiving facilities occurs, a special facility component be added to all load charge rates. This component will include debt service and operating costs associated with new the facilities.

MCES is holding a public meeting to provide information and gather public input on the proposed changes to load charge rate calculations. The meeting will be held at 3 p.m. on June 22, 2004 in Room 1A. Mears Park Centre, 230 E. Fifth St, St. Paul.