

APPENDIX E

**WET WEATHER FLOW  
REQUIREMENTS FOR AGENCIES  
TRIBUTARY TO MSDGC  
FACILITIES**

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# WET WEATHER FLOW REQUIREMENTS FOR AGENCIES TRIBUTARY TO MSDGC FACILITIES

### WET WEATHER COMPLIANCE FLOW RATES

#### 150 GPCPD Option

The communities that have elected the 150 gallons per capita per day (gpcpd) option are required to maintain their sewer system adequately to prevent wet weather flows from exceeding 150 gpcpd. For compliance monitoring in the 150 gpcpd option communities, the Metropolitan Sanitary District defines wet weather flow as the peak 24 hour flow resulting from a minimum rainfall of 1 inch in 24 hours and a maximum rainfall of 3.12 inches in 24 hours. In the Chicagoland area, 3.12 inches of rainfall in 24 hours corresponds to a 3 year recurrence storm.

#### ICAP Option

The communities that have elected the Infiltration/Inflow Corrective Action Program (ICAP) option cannot allow their sewer systems to deteriorate beyond their ICAP cost-effective wet weather flow limit which is defined as the peak 4 hour flow for a 3 year recurrence storm of 2 hours or less duration which remains in the sanitary sewer collection system after cost-effective defects have been repaired. In addition, ICAP communities will not be permitted to allow new subsystems and developments constructed after January 1, 1987 to deteriorate beyond a peak 24 hour flowrate of 150 gpcpd for any rainfall up to a 3 year recurrence storm with a 24 hour duration.

### CONTINUOUS FLOW MONITORING REQUIREMENTS

Continuous flow monitoring in each agency system should be conducted in the entire system at the suggested frequency of once every 10 years. The purpose of a continuous flow monitoring program is to evaluate the effectiveness of each agency's preventive maintenance program and to demonstrate compliance with the MSDGC Sewer Permit Ordinance.

The continuous flow metering program should include at least 30 days of continuous flow metering during periods when groundwater conditions are typically high. In the Cook County area of Illinois, groundwater levels are normally elevated in the spring and fall. Therefore, the acceptable dates for monitoring flows for the purpose of demonstrating compliance are April 15 through June 30 and September 1 through November 15. The flow metering program should include all subsystems tributary to the MSDGC interceptor system. At least one significant rainfall event of 1 inch or more in a 24 hour period should be captured during the flow metering period. If a storm equivalent to a 3 year recurrence storm is not captured during the continuous flow monitoring period, the actual measured sewer flows must be projected to the 3 year storm flow. A rain gage shall be installed within the community during the flow metering program.

Records of the continuous flow monitoring program should be retained and used for scheduling preventive maintenance and for verification of compliance with the MSDGC Sewer Permit Ordinance.