CHAPTER 1

BACKGROUND AND GOALS

When clay pipe was first installed in the U.S. (in the 19th century) the approach to "maintenance" was limited to rudimentary cleaning tools and processes that were considered "state of the art" at the time. Collection system designers planned for both inflow from rainwater and infiltration from groundwater to assist in flushing the pipe. Additionally, sewerage systems were designed to capture both stormwater and wastewater into one combined sewer system.

In 1972, the Clean Water Act lead to nationwide adoption of the modern, factory-applied sewer pipe joints and the leak-free standard. Today, this same Act also makes a Sanitary Sewer Overflow (SSO) risky for municipalities.

That is just a small part of why municipalities across the U.S. are taking a proactive and preventive approach to sewer cleaning and maintenance.

A sewerage system, although buried, can no longer be neglected.

A properly designed, installed and maintained sewer system improves the long-term performance of the system and reduces SSOs. A principal goal in maintaining any gravity flow sewer is to keep the system functioning as designed. Regular cleaning and inspection of sewer lines also provides public works departments with the valuable information needed to proactively plan and budget for personnel, equipment, upgrades and repairs.

A good maintenance and operations plan may include:

- Ability to plan and schedule work/maintenance
- Historical records built on harvested pipeline data
- Prioritized work/maintenance based on harvested pipeline data
- A plan for optimal capacity of the collection infrastructure

Formalized Maintenance Programs & CMOM

A maintenance program, whether it is part of a Capacity, Management, Operations and Maintenance (CMOM) requirement, an Asset Management program or a best practices method, is a responsible approach to managing a collection system. A proactive pipeline maintenance program also allows for a planned, systematic and scheduled inspection platform for prioritizing and scheduling repairs and system improvements.

CMOM is a flexible, dynamic framework for municipalities to identify and incorporate widely-accepted wastewater industry practices to:

- Better manage, operate, and maintain collection systems
- Investigate capacity constrained areas of the collection system
- Prevent and respond to SSO events

The Environmental Protection Agency's (EPA's) CMOM approach helps municipal wastewater utility operators provide a high level of service to customers and reduce regulatory noncompliance. CMOM programs can also help utilities optimize use of human and material resources by shifting maintenance activities from "reactive" to "preventive". CMOM information and documentation can also help improve communications with the public, other municipal works, regional planning organizations, and regulators.

Visit **www.epa.gov/npdes/pubs/cmomselfreview.pdf** to see the EPA's Self-Assessment Checklist.