



# Public Works Department

## CMOM/ SSO

### ENVIRONMENTAL

#### Capacity Management, Operation and Maintenance (CMOM) and Sanitary Sewage Overflows (SSO)

Proper function of sanitary sewer systems is vital to protect public health, property, and waterways in the surrounding area. The PW Water Division implements an operation and maintenance (MOM) plan to ensure that the sewer system is in good working order.

However, sanitary sewage overflows (SSO's) sometimes occur, causing monetary losses, damage to property, polluting groundwater, and pose a threat to the health and safety of Upland residents. Sanitary sewage overflows (SSOs) release raw sewage from the collection system before it can reach a treatment facility. Sewage may flow out of manholes, into businesses and homes and eventually ends up in local waterways. Many factors are involved in SSOs. Upland started constructing sewer systems over 70 years ago. Some of these have not been adequately maintained, improved, or repaired over the last few years, A wide variety of building materials, designs, and installation techniques were used, some of which aren't durable enough to withstand heavy, continuous use.

Improper management and maintenance cause a majority of avoidable SSOs: The leading causes of SSO's are:

Problem/Cause	Description
<b>Blockages</b>	Blockages may be caused by tree roots or a build-up of sediment and other materials (i.e., grease, grit, debris). Structural defects and a flat slope can also cause excessive deposits of material. Build-ups can cause pipes to break or collapse.
<b>Infiltration and Inflow (I/I)</b>	Infiltration and inflow occurs when rain enters the ground and seeps into leaky sanitation sewers, which were not designed to carry rainfall or drain property. Inflow can also occur when excess waters from roof drains, broken pipes and bad connections at sewer service lines infiltrate the sanitary sewer.
<b>Structural Failures</b>	Line/main breaks are a major result of structural failure. Undersized systems do not have large enough lines to carry all the sewage generated by the buildings attached to them. This is especially true for new subdivisions or commercial areas. SSO's can occur at sewer service connections to houses or buildings. Some cities estimate that up to 60% of SSO's come from service lines.
<b>Other</b>	Scheduling, vandalism

To reduce sanitary sewer overflows (SSOs), the EPA is proposing to clarify and expand permit regulations that are already in force under the Clean Water Act. This will affect over 19,000 municipal sanitary sewer systems, including 4800 satellite collection systems that will be regulated for the first time. It will allow streamlined CMOM requirements for small communities, and permit them to skip self-audits and annual reports if and SSO hasn't occurred.

#### The following web sites provide more in-depth information on CMOM:

- **SSO Web Page-** <http://water.epa.gov/polwaste/npdes/sso/index.cfm>
- **EPA Web Page-** <http://www.epa.gov/>
- **EPA NPDES Home Page-** <http://water.epa.gov/polwaste/npdes/>

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