

**Draft Revised Sanitary Level of Service (LOS) Policy**  
**September 25, 2009**

WHEREAS, the City's goal is to provide a high level of service to its customers, which requires that sewer facilities be designed to minimize odors and blockages, and have adequate capacity to convey flows.

WHEREAS, planned, systematic, and orderly construction of sewer improvements minimizes disruption and cost to the community and rate payers, and facilitates economic development by removing capacity constraints and providing greater predictability.

WHEREAS, State and Federal regulations prohibit sanitary sewer overflows.

WHEREAS, State and Regional Sewer System Management Plan guidelines require best management practices for sanitary sewer systems, including providing adequate capacity for peak wet weather flows, funding for required capacity improvements, and appropriate design standards for sewer facilities.

WHEREAS, the 1982 Level of Service Policy did not consider hydrogen sulfide corrosion and odor problems due to surcharged sewer mains.

WHEREAS, the 1982 Level of Service Policy did not provide adequate definitions for flow and capacity to give City and developers clear guidance in calculating the impact of proposed developments.

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY OF SAN JOSE THAT:**

City Council Policy 8-7 (Sanitary Sewer Level of Service) is hereby amended in its entirety to read as set forth in EXHIBIT "A," entitled "City Council Policy 8-7 (Sanitary Sewer Level of Service Policy)," attached hereto and incorporated herein as though fully set forth herein.

**REVISED SANITARY SEWER LEVEL OF SERVICE POLICY**  
**Draft 9/2/09**

Background

In June 1982, the City Council adopted the Sanitary Sewer Level of Service Policy. The primary purpose of the Sanitary Sewer Level of Service Policy is to ensure that sewage spills (or sanitary sewer overflows – SSOs) from the collection system do not occur due to inadequate sewer capacity. The 1982 Policy sets forth the conditions under which new development, and associated increases in sewer flows, may be allowed. The conditions are based on the flow in downstream sewers compared to sewer capacity, called the sanitary sewer “level of service” (LOS). The 1982 Policy states that development will be allowed to take place if Level of Service “D” is available and the development does not create a lower level of service in any downstream sewer main. Level of Service “D” is defined such that peak flow may exceed sewer capacity occasionally but not result in significant maintenance problems. However, under the existing policy, development that could potentially result in an SSO under high peak flow conditions might be allowed. Furthermore, the potential maintenance impacts of flows exceeding sewer capacity for extended periods of time (including pipe corrosion, odors, solids accumulation leading to blockage, etc.) are not considered under the policy.

SSOs may pollute surface or ground waters, threaten public health, adversely affect aquatic life, and impair the recreational use and aesthetic enjoyment of surface waters. In May 2006, the State Water Resources Control Board (State Water Board) issued Statewide General Waste Discharge Requirements (GWDR) as a primary regulatory mechanism to regulate the capacity, operation, maintenance, and management of public collection systems to prevent SSOs. The GWDR requires public collection system owners to provide adequate capacity to convey base flows and peak flows including flows related to wet weather events, and to report all SSOs in their collection systems. Some SSOs may result in discharges to drainage channels and/or surface waters. The unpermitted discharge of wastewater is illegal under the Federal Clean Water Act and the City’s National Pollutant Discharge Elimination System (NPDES) permit. When taking any enforcement action, the State Water Board will assess factors including whether the sanitary sewer system design capacity is appropriate to reasonably prevent SSOs.

Purpose

The primary objectives of the Sanitary Sewer Level of Service Policy are to:

- Prevent sewage spills from the sanitary sewer system due to inadequate capacity so as to ensure that the City complies with all applicable requirements of the Federal Clean Water Act and State Water Board’s General Waste Discharge Requirements for Sanitary Sewer Systems and National Pollutant Discharge Elimination System permit,
- Maintain reasonable excess capacity in order to protect sewers from increased rate of hydrogen sulfide corrosion and minimize odor and potential maintenance problems, and
- Ensure adequate funding and timely completion of the most critically needed sewer capacity projects.

These objectives will be met through an orderly process of ensuring that, before development occurs, there is adequate capacity in existing sewer mains to handle anticipated dry and wet weather flow conditions while minimizing the potential for SSOs and other problems.

Also, it is the intent of the policy to promote clear guidance, consistency and predictability to developers regarding the necessary sewer improvements to support economic development within the City.

Policy

1. Definition of Sanitary Sewer Level of Services:

The level of service (LOS) for a sanitary sewer main is a comparison between the capacity of the main and the peak dry weather flow and/or peak wet weather flow, where peak dry weather flow and peak wet weather flow (Reference Appendix A for Glossary) shall be determined based on the guidelines provided in the Sewer Capacity Impact Analysis (SCIA) Guidelines.

The LOS is determined based on the pipe flow capacity utilized under peak dry and wet weather flow conditions, as defined below.

Level of Service	Description
<b>A</b>	Meets City’s design criteria under peak wet weather flow.
<b>B</b>	Meets City’s design criteria under peak dry weather flow and no more than 100 percent of full pipe capacity under peak wet weather flow.
<b>C</b>	No more than 80 percent of full pipe capacity under peak dry weather flow and no more than 100 percent of full pipe capacity under peak wet weather flow.
<b>D</b>	No more than 90 percent of full pipe capacity under peak dry weather flow and no more than 110 percent of full pipe capacity under peak wet weather flow.
<b>E</b>	No more than 110 percent of full pipe capacity under peak dry weather flow and no more than moderate surcharge under peak wet weather flow.
<b>F</b>	More than moderate surcharge under peak dry weather flow or significant surcharge or predicted overflow under peak wet weather flow.

Calculations to determine pipe capacity, peak dry weather flow, and peak wet weather flow; as well as definitions of moderate and significant surcharge are provided in the SCIA Guidelines.

## 2. Sewer Capacity Impact Analysis

### a. Sewer Capacity Impact Analysis

When the City determines through the application of its technical methodology that a proposed development could result in an unacceptable LOS in a downstream sewer main, the applicant must prepare a Sewer Capacity Impact Analysis (SCIA) to evaluate those project impacts. The specific conditions under which a SCIA is required are described in the SCIA Guidelines.

Infill projects adding less than 2,000 gallons per day (gpd) average dry weather flow to the collection system will be exempted from this Level of Service Policy if the development does not impact a pipe with a background LOS of “F” (refer to Glossary in Appendix A for definition of background flow). Larger infill projects adding between 2,000 gpd and less than 20,000 gpd average dry weather flow will be exempted from this Level of Service Policy if the development does not impact a pipe with a background LOS of “E” or lower.

In no case shall any of these infill projects be exempted if they are increments of a larger project or parcel.

### b. Sewer Capacity Impact Analysis Guidelines

The City has developed comprehensive guidelines to describe the appropriate methodology and process for preparing a SCIA report. Developers shall use this document as a guide for preparing SCIA reports that comply with the sewer related policies and practices of the City. The SCIA Guidelines can be found in Appendix B.

### c. Significant LOS Impacts

A significant LOS impact occurs when the SCIA demonstrates that the proposed development would either: (1) cause the level of service to fall below a LOS “D” in any downstream sewer main, or (2) increase the background average dry weather flow in a sewer main already operating at LOS “E” or “F” by more than 1 percent, unless the project is exempted from the Policy.

## 3. Mitigation of LOS Impacts

Proposed development will be required to mitigate significant LOS impacts by being required to install supplements to improve LOS to “D” or better as identified in the SCIA.

If proposed development has a significant LOS impacts downstream of the project site, the project will be required to improve the LOS to “D” or better and may receive credit from their area fee requirement. Another way of mitigating the significant LOS impact is for one or more developers to enter into a construction agreement with the City to fund a sanitary sewer project that is scheduled for future years of the City’s Capital Improvement Project. Developer(s) would advance the funds for construction and the City would reimburse the developer(s) in the year in which the City would otherwise construct the sewer project.

#### 4. Implementation

The Sanitary Sewer Master Plan Program is in place to determine sewer system capacity needs and to develop a sewer capacity improvement program. To identify sewer capacity needs, a computerized hydraulic model of the City's sewer system will be developed.

The Master Plan program will first identify the capacity improvement needs in the trunk sewers of 10-inch and larger in diameter. The program will then be expanded to identify the needs for capacity improvement in smaller sewer systems.

Maps of sewer level of service based on the hydraulic models and available flow monitoring data will be prepared for use in the sewer capacity impact analysis.

### **Appendices**

#### **Appendix A: List of Abbreviations and Definitions**