

## REQUEST FOR COUNCIL ACTION

**December 13, 2005**

SUBJECT: Resolution Establishing I&I Removal Standards  
SUBMITTED BY: Craig Martin, City Manager  
PREPARED BY: Michael J. Adams, Public Works Director

---

### STATEMENT OF SUBJECT:

A Resolution establishing Inflow and Infiltration removal standards and criteria.

### RECOMMENDATION:

It is hereby recommended by Public Works Committee that City Council make a motion adopting the attached resolution establishing inflow and infiltration standards and criteria as it pertains to sanitary sewer service laterals.

### BACKGROUND ANALYSIS:

In December 2002, the City of Sweet Home (City) completed a "Sanitary Sewer Master Plan" in which one conclusion was for the City to conduct a sewer replacement program to systematically replace older pipes, including repair/replacement of the building sewer service laterals. It is believed the City can realize a significant cost savings by comprehensively rehabilitating both public and private components of the sanitary sewer system thereby reducing the amount of otherwise clean storm and surface water entering the sanitary sewer system as Inflow and Infiltration (I&I). All rate payers share the benefits of reduced I&I which include decreased treatment costs, decreased risk of sanitary sewer overflows and reduced capital expenditures for collection system and treatment plant upgrades and expansions.

Surface and ground water flowing into damaged private sanitary sewer laterals is a significant source of I&I. Damaged, cross-connected, or otherwise unmaintained building sewer service laterals increase the amount of surface and groundwater infiltrating sanitary sewers. The City is required by National Pollutant Discharge Elimination System (NPDES) and Mutual Agreement and Order (MAO) to eliminate all excessive I&I from the sanitary sewer system.

This resolution will establish a process for identifying and eliminating I&I on private property; procedures for notifying property owners of the need to correct defective building sewer service laterals; procedures for inspection and repair of building sewer service laterals by City; and procedures for requiring a property owner to correct defective systems in a timely manner.

### FISCAL IMPACT:

Funds necessary to incorporate this resolution will be allocated through City budget process.

### ALTERNATIVES:

Choose not to approve.

**Resolution No. \_\_\_\_\_ for 2005**

**A RESOLUTION ESTABLISHING INFLOW AND INFILTRATION REMOVAL STANDARDS AND CRITERIA**

WHEREAS, the Sweet Home City Council on October 11, 2005 had a third and final reading adopting Ordinance No.11 thereby amending Sweet Home Municipal Code (SHMC) 13.08; and

WHEREAS, SHMC 13.08.780 Infiltration and Inflow authorizes the formal establishment of standards and criteria for purposes of preventing and removing Inflow & Infiltration (I&I) from City sanitary sewer system; and

WHEREAS, City desires to establish formal and consistent policy for inspecting, repairing and/or replacing sewer service laterals, particularly on private property, in effort to eliminate excessive I&I from entering sanitary sewer system.

NOW, THEREFORE, BE IT RESOLVED BY THE SWEET HOME CITY COUNCIL that on December 13, 2005, the following shall become effective.

**SECTION 1 - BACKGROUND AND PURPOSE**

A) Background. In December 2002, the City of Sweet Home (City) completed a “Sanitary Sewer Master Plan” in which one conclusion was for the City to conduct a sewer replacement program to systematically replace older pipes, including building sewer service laterals. It is believed the City can realize a significant cost savings by comprehensively rehabilitating both public and private components of the sanitary sewer system thereby reducing the amount of otherwise clean storm and surface water entering the sanitary sewer system as Inflow and Infiltration (I&I). All rate payers share the benefits of reduced I&I which include decreased treatment costs, decreased risk of sanitary sewer overflows and reduced capital expenditures for collection system and treatment plant upgrades and expansions.

B) Purpose. Surface and ground water flowing into damaged private sanitary sewer laterals, also commonly referred to as side or building sewers (referred to collectively herein as “Sewer Laterals”) is a significant source of I&I. Damaged, cross-connected, or otherwise unmaintained Sewer Laterals increase the amount of surface and groundwater infiltrating sanitary sewers. Sweet Home Municipal Code (Ordinance) 13.08 prohibits discharge of drainage from roofs, foundation drains, gutters, uncontaminated cooling water or surface or ground water drains to the sanitary sewer system. The City is also required by National Pollutant Discharge Elimination System (NPDES) and Mutual Agreement and Order (MAO) to eliminate all I&I from the sanitary sewer system. The purpose of this Resolution is to establish, by rule:

- 1) A process for identifying and eliminating I&I on private property;
- 2) Procedures for notifying property owners of the need to correct defective Sewer Laterals;
- 3) Procedures for inspection and repair of Sewer Laterals by City; and

- 4) Procedures for requiring a property owner to correct defective systems in a timely manner.

## **SECTION 2 – DEFINITIONS**

The definitions of Sweet Home Municipal Code (SHMC) Chapter 13.08 apply to these rules. In addition, the following definitions shall apply:

A) “Defect” means cracked, broken or crushed pipe, open or offset joints, root intrusion, or other imperfection in a sanitary sewer pipe which may allow entry of surface or groundwater into the sanitary sewer system. Defects shall also include “Direct Connections” as defined in this section.

B) “Direct Connection” means connections of roof drains, foundation drains, or similar conduits to which it may allow entry of rain, surface drainage, or groundwater into the sanitary sewer system.

C) “Lateral Preventive and Corrective Maintenance” or “preventive and Corrective Maintenance” means activities required to preserve or restore functional operation and the free-flowing condition of Sewer Laterals. These activities include, but are not limited to, inspection, blockage removal, and cleaning.

D) “Lateral Structural Maintenance” or “Structural Maintenance” means those construction, pipe repair and pipe replacement activities required to correct Defects and preserve the structural integrity and watertight condition of Sewer Laterals.

E) “Sewer Lateral” means that portion of the sanitary sewer system extending from the public mainline to a point five feet outside the building or as otherwise defined in SHMC Chapter 13.08.

F) “Sewer Lateral Rehabilitation Project Area” means an area with high levels of I&I scheduled for rehabilitation by City.

G) For each defined term, the use of the plural shall include the singular and use of the singular shall include the plural.

## **SECTION 3 - GENERAL PROVISIONS**

A) Authority. Adoption of these rules is authorized by SHMC Chapter 13.08.780.

B) Standard of Maintenance. All property owners shall be responsible for maintenance of Sewer Laterals serving their property in a condition free from Defects or blockage.

C) Application. These rules shall apply throughout the jurisdiction of City of Sweet Home and are intended to apply to every Sewer Lateral within the jurisdiction of City. Nothing in these rules shall prohibit any property owner within City jurisdiction from performing lateral preventive or corrective maintenance in their own discretion.

## **SECTION 4 - LATERAL MAINTENANCE RESPONSIBILITY GENERALLY**

A) Lateral Preventive and Corrective Maintenance. Property owners shall be responsible for all Sewer Lateral Preventive and Corrective Maintenance activities, including activities conducted to maintain that portion of a Sewer Lateral connected to the property and located within the public right of way.

B) Lateral Structural Maintenance. Structural Maintenance of the portion of Sewer Laterals on private property, whether or not a public easement has been granted, shall be the responsibility of owners of property served by the Sewer Lateral. Structural Maintenance of the portion of Sewer Laterals within the public right of way necessary for the removal of excessive I/I, as determined solely by the City, shall be the responsibility of City.

C) Responsibility of City. If the City performs Lateral Structural Maintenance on private or public property, the City is responsible for the quality of work that such entity performs for one year thereafter. Following completion of such work, responsibility for lateral maintenance shall continue to be the responsibility of owners of property served by the Sewer Lateral as set forth in 4 A. and B. above. City shall not be responsible for injury to persons or damage to property occurring due to a Defect in a Sewer Lateral that existed prior to initiation of Preventive or Corrective Maintenance or Structural Maintenance or of a Sewer Lateral Rehabilitation Project Area by City under these rules.

D) City Authority. City at all times retains the right to require the property owners to maintain Sewer Laterals as specified in this Resolution and Order, or to perform such maintenance on behalf of such owners whether or not such owners are located in a Sewer Lateral Rehabilitation Project Area.

## **SECTION 5 - DESIGNATION OF SEWER LATERAL REHABILITATION PROJECT AREAS**

Sewer Lateral Rehabilitation Project Areas shall include all basins within the City Limits, and/or Urban Growth Boundary (UGB), as appropriate for system repair and/or replacement projects to reduce I&I.

## **SECTION 6 - INSPECTION OF SANITARY SEWER SYSTEMS**

A) Inspection and Investigation Methods. City may at any time inspect and investigate the condition of the sewer system using flow monitoring, television inspection, smoke testing, dye testing and other methods deemed appropriate by City. Areas subject to investigation and inspection shall include all aspects of such systems on public property and within the public right-of-way, as well as all Sewer Laterals located on private property. Investigation and inspection methods may be used to identify, verify and quantify locations and amounts of I&I into the sanitary sewer system. Except in the case of Lateral Preventive and Corrective Maintenance activities performed by users on private property and not under the direction of City, City shall determine the scope of, and methods to be used for, system inspection.

B) Notice of City Inspection and Investigation Activities on Private Property.

1) Notice to Property Owners. Where inspection and investigation methods such as lateral television inspection or location require physical entry onto private property by City staff and/or equipment, City shall request permission to perform the inspection and obtain a permit of entry from the owner of the property prior to performing the inspection. If the property owner does not grant City permission to enter the property, City may enter the property in accordance with the procedures set forth in Ordinance 13.08. Notice of inspection shall also be given to occupants of the property, to the extent required by 2 of this section.

2) Notice to Occupants. Where inspection and investigation methods may impact structures or their occupants, City shall attempt to notify occupants prior to performing the inspection and investigation and inform them of any precautions they may wish to take to reduce potential inconvenience to themselves or their property. Notice to occupants shall be given by door hanger, personal service, service by mail, or by any combination of such methods. At all times, City shall attempt to provide notice to occupants that are commensurate with the level of proposed intrusion. City shall not be required to notify property owners or occupants of inspection or investigations which do not require staff, equipment or smoke to enter the property.

## **SECTION 7 - MAINTENANCE AND REPAIR OF SEWER LATERALS**

A) City Options When Maintenance or Repair Required. Following inspection, if City determines that a Sewer Lateral requires Preventive and Corrective Maintenance or Structural Maintenance, City may, in its sole discretion and entirely at its own expense:

- 1) Notify the owner of the Preventive and Corrective Maintenance or Structural Maintenance necessary, and require the owner to conduct the necessary maintenance within a specified time period.
- 2) Notify the owner of City's willingness to complete the Preventive and Corrective Maintenance or Structural Maintenance at no charge to the property owner or occupant except as set forth below.

B) Owner Required to Conduct Preventive and Corrective Maintenance or Structural Maintenance.

- 1) Factors Considered in City's Decision. In its sole discretion, City may require an owner of property to conduct Preventive and Corrective Maintenance or Structural Maintenance on a Sewer Lateral. In exercising its discretion to require corrective action by a property owner, City may consider any or all of the following:
  - a Whether City offered to perform the maintenance and the offer was rejected by or not responded to within 30 days after delivery of the offer to the property owner;
  - b The degree of owner or user involvement in creation of the maintenance or structural problem requiring correction; and
  - c The expense of correction, and amounts budgeted by City for making repairs or conducting maintenance system-wide or in a basin or sub-basin.
- 2) Notice of Defects When Correction IS Required. Notice that City requires an owner to conduct Preventive and Corrective Maintenance or Structural Maintenance on a Sewer Lateral shall be provided to the owner in writing, in person or by certified mail, return receipt requested. The notice shall include:
  - a A general description of the type of maintenance or repair required and the suspected location of the required maintenance or repair;

- b The date by which corrective action must be completed, which shall be at least 45 days from the date of the notice unless the condition is dangerous or poses a substantial risk of damaging the sanitary sewer system maintained by the City or poses an unacceptable risk to public health or the environment;
- c A description of penalties for failure to comply with the notice, and applicable appeal procedures; and
- d Permit requirements, and procedures for having the work inspected and for notifying City of its satisfactory completion.

3) Notice of Defects When Correction IS NOT Required. Where inspection or investigation reveals apparent flaws in a structure's interior plumbing which do not contribute I&I to the sanitary sewer system, City may, but is not required to, inform the property owner of the type and location of the flaws, if known. Corrections to the interior plumbing shall not be required by City unless such flaws could cause a violation of City ordinances and/or building and plumbing codes.

4) City Inspection and Approval of Maintenance and/Or Repair Work. City may inspect maintenance and/or repair work carried out by or at the direction of a property owner to ensure that it has been completed in accordance with all applicable rules and codes. If the maintenance and/or repair work is found to be inadequate, City shall notify the property owner and the property owner shall make the necessary corrections. City shall notify the property owner in writing of its acceptance of the maintenance and/or repair work.

5) Waiver of City Inspection and Approval of Minor Maintenance. City retains the right to waive any portion of the inspection or proof of corrective action required by this section in circumstances relating to minor Preventive and Corrective Maintenance conducted by a property owner.

6) Permits Required. Any person intending to perform Structural Maintenance work on Sewer Laterals may do so only after obtaining all required permits from City and any other governmental entity exercising jurisdiction over the work.

C) City Offer to Conduct Preventive and Corrective Maintenance or Structural Maintenance.

1) City To Provide Maintenance Services. In its sole discretion, and contingent on availability of program funding, City may offer to conduct Preventive and Corrective Maintenance or Structural Maintenance on a Sewer Lateral, at no, or limited expense to the property owner or occupant. Generally, unless special circumstances exist as specified in Subsection B of section 7, City will offer to conduct Sewer Lateral maintenance in Sewer Lateral Rehabilitation Project Area designated under Section 5 of these rules. In such areas, City will rehabilitate the entire area one-time; thereafter, lateral maintenance responsibility set forth in Section 4 above shall apply.

2) Notice of Offer to Provide Services. City's offer to provide Sewer Lateral Preventive and Corrective Maintenance or Structural Maintenance services shall be in the form of a notice to the property owner, which shall include:

- a A description of the Preventive and Corrective Maintenance or Structural Maintenance required;
- b City's offer to perform the maintenance at no charge to the property owner or occupant;
- c A statement that, in order to receive corrective services from City and as a contribution by the property owner, the property owner must agree to accept full responsibility for repair or replacement of surface amenities including, but not limited to, lawn, landscaping and yard ornamentation in the repair area and to hold City harmless for any damage to such surface amenities;
- d Notice that if the property owner does not accept City's offer as conditioned within 30 days after delivery, the property owner will be required to perform or have performed the Preventive and Corrective Maintenance or Structural Maintenance at his/her own expense pursuant to Section 7.B above; and
- e Notice that if the required maintenance is not performed, (by property owner or City) the owner is subject to enforcement under City Ordinance 9, 13, and/or any other relevant City Ordinance.

3) Schedule of Maintenance and Notice of Excavation. Following receipt of written permission to enter and complete required maintenance, City shall schedule the work. If the work includes excavation activities, City shall provide advance notice to the owner and occupants of the property of the approximate date on and the approximate area in which excavation will occur. Notice provided shall be sufficient to allow time for the owner or occupants, if they so desire, to remove landscaping and other amenities from the excavation area.

4) Completion of Preventive and Corrective Maintenance or Structural Maintenance. Upon completion of Preventive and Corrective Maintenance or Structural Maintenance activities under this section, City shall properly backfill and compact excavated areas, and repair damage caused during said project to public sidewalks and private concrete/asphalt walkways and/or concrete/asphalt driveways. To the extent necessary, erosion control measures will be left in place following excavation, to allow sufficient time for the property owner to repair or replace disturbed surface vegetation. Removal of erosion control measures placed by City or contractor shall be the responsibility of the property owner or occupant.

## **SECTION 8 – MISCELLANEOUS**

A) Schedule and Limits of Lateral Structural Maintenance. City shall determine the schedule for its Sewer Lateral maintenance work in Sewer Lateral Rehabilitation Project Area and may perform work with its crews or by contract according to that schedule. City may modify the schedule as necessary for any reason and in its sole discretion without liability therefore. Nothing in these rules shall require City to modify its

maintenance schedule or to compensate property owners for maintenance work performed by property owners ahead of City's schedule.

B) City Actions When Construction Cannot be Made Due to Defect. If, when performing Lateral Structural Maintenance on a Sewer Lateral outside Designated Rehabilitation Area, or when performing Lateral Structural Maintenance on a Sewer Lateral where the property owner has rejected City's offer to repair defects on private property, City discovers that the condition, location, or material of the existing pipe is such that a structurally sound connection at the public right-of-way line can not be made without further repair or replacement on private property, City shall 1) make a temporary connection, document the nature of the Defect, and secure the excavation area, and 2) follow procedures in Section 7 of these rules to either make all necessary corrections or to require the property owner to complete such corrections. If City cannot, within a reasonable time, obtain agreement from the property owner to correct the Defect or allow City to correct the Defect, whichever the case may be, City may backfill the excavation area. City shall not be required to perform Sewer Lateral maintenance work on private property, nor shall it be responsible for any additional cost to the property owner resulting from either the installation of the temporary connection or the backfilling of excavated areas prior to completion of all necessary repairs.

**SECTION 9 – ENFORCEMENT**

Failure to take action to correct identified Defects in a timely manner as required by these rules constitutes a public nuisance, is a violation of Sweet Home Ordinance 13.08 and is subject to enforcement actions utilizing a procedure or remedy provided in Sweet Home Ordinance 9.36, and/or this Resolution including any amendments thereto.

It has been determined that these estimated costs and schedule are classified as not being subject to Oregon Constitution, Article II, Section 11b limitations.

This resolution supersedes any/all prior resolutions on water leak adjustments.

PASSED by the Council and approved by the Mayor this \_\_\_\_\_ day of \_\_\_\_\_ 2005.

\_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Manager - Ex Officio City Recorder