

LAKE COUNTY SANITATION PRIVATE LATERAL REPLACEMENT GRANT PROGRAM

Purpose

The Private Lateral Replacement Grant Program * (PLRGP) provides financial assistance to eligible property owners for the replacement of their private sewer lateral, which, due to their age or condition, are often a source of inflow and infiltration (I&I) to the sewer collection system, which increases the amount of wastewater processed at Lake County Sanitation District's (LACOSAN) wastewater treatment facility resulting in increased costs.

This pilot program has been funded with \$30,000, to assist property owners with costs to upgrade private laterals as the upgrades will benefit the entire district by reducing inflow and infiltration. Funds will be allocated on a first come first serve basis.

Grant Amount

The maximum amount of assistance for a sewer lateral replacement or repair is 50% of the approved cost, up to a maximum reimbursement of \$3,000. **Only complete replacement of the side sewer, or a repair that completely eliminates infiltration and inflow, is eligible for the program.** All PLRGP applications are subject to approval by LACOSAN. Payment shall be made to the owner(s) following inspection and approval of completed work.

Ownership / Responsibility

In the absence of a Property Line Clean Out (PLCO) the side sewer from the home or building to, and including, the connection at the public main belongs to the property owner. In the event a properly installed PLCO exists on the lateral serving the property, the property owner is responsible for the Building Sewer from the home or building to the property line. Property owners are responsible for all costs relating to their sewer lateral (either the entire side sewer or building sewer as appropriate), including; installation, connection, maintenance, repair, reconstruction, alteration, abandonment or removal to prevent inflow and infiltration (Article IV, Section 409 – Maintenance of Side Sewer of the Sewer Use Ordinance for Lake County Sanitation District)

What is a sewer lateral? Per Article I, Section 101 – Definitions, of the Sewer Use Ordinance for Lake County Sanitation District

[121] "Main Sewer" shall mean a public sewer designed to accommodate more than one lateral sewer.

[122] "Lateral Sewer" shall mean the portion of a sewer lying within a public street connecting a building sewer to the main sewer.

[123] "Building Sewer" shall mean that portion of any sewer beginning at the plumbing or drainage outlet of any building or industrial facility and running to the property line or to a private sewage disposal system.

[124] "Side Sewer" shall mean the sewer line beginning at the foundation wall of any building and terminating at the main sewer and includes the building sewer and lateral sewer together.

Infiltration and Inflow

Infiltration and Inflow: Infiltration is the seepage of groundwater into the sewer pipes through holes, cracks, joint failures and faulty connections. Inflow occurs when surface water flows into sewer pipes at points of direct connections such as roof, yard, foundation and basement sump drains. (See attachment A for more information)

Application

For consideration of the PLRGP, applicants must complete and submit the application form.

Contact Lake County Sanitation District (Special Districts) at 230 N. Main Street, Lakeport, CA for an application and determination of eligibility. Applications are also available online at http://www.co.lake.ca.us/Government/Directory/Special_Districts.

Funds will be allocated on a first-come, first-serve basis until all funds are allocated. All work will need to be completed within ninety (90) days of receiving the notice of funding approval. This shall include all work, inspection, and payment to Contractor by Applicant.

PLRGP Check List

- * Complete the application for review, determination of eligibility and approval.
- * Receive a letter of approval and requirements. Approved funds will only be issued by LACOSAN to the property owner.
- * Schedule a closed circuit televised video (CCTV) inspection with LACOSAN staff or a contractor of homeowner's choice
- * Submit three (3) quotes obtained from properly licensed contractors who perform one or more of the accepted sewer lateral replacement methods.
- * Acquire any necessary encroachment permits and any necessary building permits.
- * Notify the LACOSAN of scheduled work. A LACOSAN representative will inspect work on the lateral replacement as it occurs.

Funding Approval

If program qualifications are not met prior to commencement of any construction work, the property owner will not be eligible for funding from the grant program. Any work to repair or replace the sewer lateral prior to receiving a letter of approval from LACOSAN is performed at the owner's risk and cost.

To be approved, ALL PLRGP applications are subject to all program qualifications.
Call (707) 263-0119 with any questions about the program or your application.

**Lake County Sanitation District
Lake County Special Districts
230 N Main Street
Lakeport, CA 95453**

**(707) 263-0119
www.co.lake.ca.us/Government/Directory/Special_Districts.htm**

Attachment A

What are Inflow and Infiltration?

Inflow and infiltration or I & I are terms used to describe the ways that groundwater and storm water enter into dedicated wastewater or sanitary sewer systems. Dedicated wastewater or sanitary sewers are created from pipes located in the street or on easements that are designed strictly to transport wastewater from sanitary fixtures inside your house or place of business. Sanitary fixtures include toilets, sinks, bathtubs, showers and lavatories.

Inflow is storm water that enters into sanitary sewer systems at points of direct connection to the systems. Various sources contribute to the inflow, including footing/foundation drains, roof drains or leaders, downspouts, drains from window wells, outdoor basement stairwells, drains from driveways, groundwater/basement sump pumps, and even streams. These sources are typically improperly or illegally connected to sanitary sewer systems, via either direct connections or discharge into sinks or tubs that are directly connected to the sewer system. An improper connection lets water from sources other than sanitary fixtures and drains to enter the sanitary sewer system. That water should be entering the storm water sewer system or allowed to soak into the ground without entering the sanitary sewer system.

Improper connections can be made in either residential homes or businesses and can contribute a significant amount of water to sanitary sewer systems. Eight inch sanitary sewer pipes can adequately move the domestic wastewater flow from up to 200 homes, but only eight sump pumps operating at full capacity or six homes with downspouts connected to the sanitary sewer pipe will overload the capacity of the same eight inch sewer pipes. A single sump pump can contribute over 7,000 gallons of water to sanitary sewer systems in a 24 hour period, the equivalent of the average daily flow from 26 homes.

Infiltration is groundwater that enters sanitary sewer systems through cracks and/or leaks in the sanitary sewer pipes. Cracks or leaks in sanitary sewer pipes or manholes may be caused by age related deterioration, loose joints, poor design, installation or maintenance errors, damage or root infiltration. Groundwater can enter these cracks or leaks wherever sanitary sewer systems lie beneath water tables or the soil above the sewer systems becomes saturated. Often sewer pipes are installed beneath creeks or streams because they are the lowest point in the area and it is more expensive to install the pipe systems beneath a roadway. These sewer pipes are especially susceptible to infiltration when they crack or break and have been known to drain entire streams into sanitary sewer systems. Average sewer pipes are designed to last about 20-50 years, depending on what type of material is used. Often sanitary sewer system pipes along with the lateral pipes attached to households and businesses have gone much longer without inspection or repair and are likely to be cracked or damaged.

Inflow and Infiltration water is called "clear water" (although it may be dirty) to distinguish it from normal sanitary sewage water in the sewer system.

Why is inflow and infiltration a problem?

Sanitary sewer systems are designed to carry wastewater from toilets, dishwashers, sinks and showers in homes or businesses. Inflow and infiltration add clear water to sewer systems increasing the load on the systems. Clear water belongs in storm water sewers or on the surface of the ground, and not in the sanitary sewers. A storm water sewer is a pipe system designed to carry rainwater away. Storm water sewers are normally much larger than sanitary sewer systems because they are designed to carry much larger amounts of water. Drainage ditches also act the same way in many neighborhoods. When clear water enters sanitary sewer systems, it must be transported and treated like sanitary waste water. During dry weather the impact of inflow and infiltration can vary from minimal impact to a significant portion of the sewer pipe flow. Wet weather magnifies existing inflow and infiltration sources. As a rain or snow melt event begins the inflow and infiltration sources start filling the sanitary sewer systems with clear water, eventually filling the sewer systems to capacity. Once the sanitary sewer systems have reached capacity or becomes overloaded, wastewater flows at much higher water level than normal and if sanitary fixtures or drains are below this overload level, water will flow backward through the sanitary sewer pipe, flooding basements or households and causing manholes to pop open releasing wastewater onto the street.

Overflow occurrences put public health at risk and violate state and federal environmental regulations. Sanitary sewer overflows release wastewater and potential pathogens onto streets, into waterways, and basements increasing potential health risks. As wastewater overflows into creeks, rivers, lakes, and streams it contaminates all bodies of water fed by the waterways and all creatures/plants coming

in contact with the polluted water. Sewer overflows also contribute to beach advisories and closures due to contamination.

Many communities are likely to experience at least a few overflows in their sanitary sewer systems, but older communities located downstream from these overloaded sewer systems will experience the most overflows and basement backups because of their low location in the watershed. The sanitary sewer systems in these older communities not only carry their own wastewater and inflow and infiltration, they also receive the wastewater flow from the upstream neighboring community's sewer systems. The network of integrated sewer collection system pipes throughout a regional service area makes it essential for all municipalities to collaborate on and share responsibility for developing and implementing long-term solutions to the inflow and infiltration problem.

Inflow and infiltration reduce the ability of sanitary sewer systems and treatment facilities to transport and treat domestic and industrial wastewater. As a result of the inflow and infiltration, wastewater treatment processes are disrupted and poorly treated wastewater is discharged to the environment.

There are various costs associated with inflow and infiltration including sanitary sewer system overflow, wastewater treatment and transportation facilities, and funding opportunities. Overflow costs are associated with road and waterway cleanup and the potential for fines if the overflow problem is not corrected. Additionally, sewer system backups into basements or households can result in litigation and potential liabilities for the responsible city or agency. Eventually, new homes or businesses may not be allowed to connect to the sanitary sewer system if the inflow and infiltration issues are not corrected, increasing costs to residents as a new sanitary sewer system is installed or potentially lowering housing values due to the inability to develop land for future growth.

Inflow and infiltration costs water treatment facilities and consumers large amounts of money in water treatment operating expenses. All water entering a water treatment facility must be treated as wastewater causing an increase in operating costs proportional to the amount of clean water entering the sanitary sewer system due to inflow and infiltration. For example, the Metro Plant in St. Paul, Minnesota typically receives 200 million gallons a day (mgd) of wastewater from its sanitary sewer systems. During a rainstorm the load on the sewer systems can triple to 700 mgd or more. Costs associated with processing the added clean water from inflow and infiltration are eventually passed back to the consumer in the form of rate increases. By reducing inflow and infiltration capital and operating costs can be lowered. Minimizing inflow and infiltration can also increase the lifetime-capacity of a treatment facility and wastewater transportation system. The pumps that are involved with wastewater treatment and transport operate 24 hours a day seven days a week; however they must work harder as the sewer system's water level load increases. This puts an unneeded strain on the pumps and shortens the life expectancy of these expensive pumps.

Other costs include the city or agency failing to meet federal or state guidelines and causing the community to become ineligible for low interest loans from grant or revolving fund opportunities. Often state water boards will provide funding opportunities to a city or agency; however they will be tied to some related criteria. In this case the funding opportunities would be tied to the number of sanitary sewer system overflow incidences in the city or agency's area.