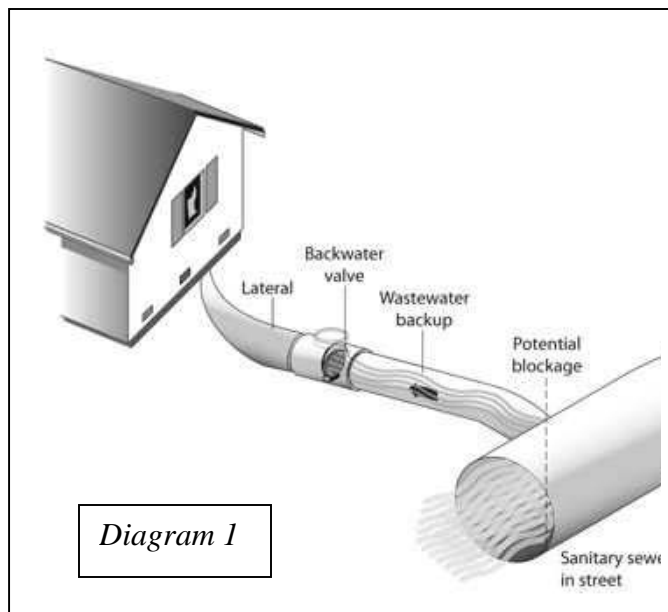


PREVENTING SEWER BACKUPS

The City of Los Altos wants to work with residents and tenants to keep the sanitary sewer system flowing and functioning properly. Together, we can reduce sewer line blockages and sewer backups into homes and businesses, and reduce the amount of personal property damage, disruption, and costly repairs, with the goal of eliminating them entirely.

Property owners and tenants can prevent most backups and blockages by following these steps:

- 1. Do not pour grease down the drain**
 - Cooking grease that hardens in the sewer pipes and creates a plug causes most blockages. Do not pour cooking grease, fats or oils down the sink drain – hot water will not melt fat away. Instead, scrape fats, oils and grease from plates and pans into a covered container and put it in the trash. If necessary, store it in the refrigerator until garbage collection day.
 - Put food scraps in the garbage, or compost them to reduce the amount of garbage in your trashcan. Use the garbage disposal sparingly.
- 2. Do not plant trees or large shrubs near sewer lines**
 - Roots grow toward breaks and cracks in search of a water source. If roots get inside the pipes, they often form “root balls” that clog a line.
- 3. If you have a “backwater valve,” inspect it annually**



A backwater valve is a plumbing fixture that acts as a one-way stopper. It allows wastewater to leave your property, but prevents it from coming back in when there is a blockage in the sewer line. (See diagram 1).

WHAT IS “BACKFLOW” AND WHY DOES IT HAPPEN?

Under certain conditions, stoppages in the sanitary sewer in your neighborhood could cause sewage wastewater to “back up” into the system, a condition called **backflow**. When there is a stoppage in the sewer main in the street, the sewer system upstream of the stoppage becomes flooded. The water level in the sewer will continue to rise until it reaches an overflow point, which usually is at the **sewer manhole** above the stoppage. But the overflow point could be in your house if the base of your plumbing fixture (the **flood rim level**) is lower in elevation than the next upstream manhole (see *diagram 2*).

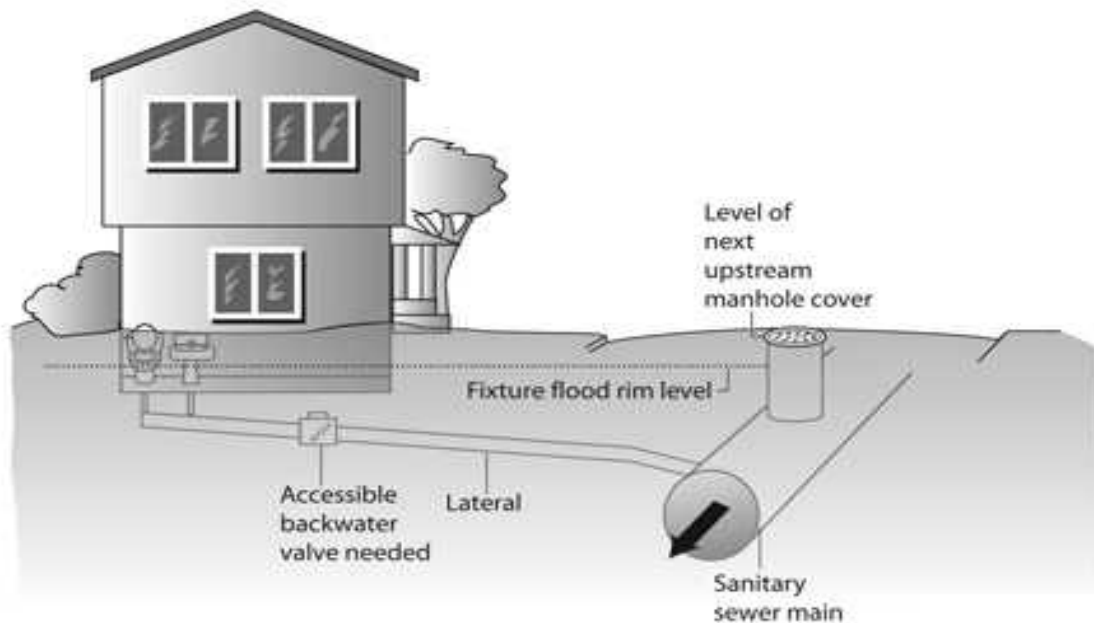


Diagram 2

HOW CAN I DETERMINE IF MY PROPERTY IS AT RISK?

A visual comparison of the manhole elevation to the flood level elevation of the **lowest plumbing fixture** (usually a shower, bathtub or toilet, any drains in garage or basement) in your home will indicate the potential for spillage of wastewater into your home. If the overflow rim of any plumbing fixture in your building (toilet, shower, tub, sink, etc.) is lower than the elevation of the nearest uphill manhole cover, your home would be at risk (*See diagram 1*). The use of a **builder’s level** optical instrument can help determine the relative elevations to see if your home is subject the risk of backflows. A licensed plumbing contractor or land surveyor can assist you to determine these elevations. A home inspection company may also be able to help you determine if your property is at risk.

The location of plumbing fixtures in a basement does not automatically pose a risk. In many instances, fixtures in a basement are pumped vertically to a building drain above, and the pump outlet is already provided with a check valve that protects against backflow. If the

basement fixtures drain by gravity and aren't pumped out, the lowest basement fixture would be used to determine your risk.

IF I AM AT RISK, HOW DO I PROTECT MY PROPERTY?

If you determine that your home is at risk, a device called a **backwater valve** should be installed in your private sewer lateral or **building drain**. This device contains a flapper that opens with the normal flow of waste away from your home, but swings shut to prevent backflow when the direction of flow is reversed. It allows wastewater to leave your property, but prevents it from coming back in when there is a blockage in the sewer line. (*See diagram 1*). Requirements for a backflow device installation are contained in the Los Altos Municipal Code and the California Plumbing Code

Backwater valves are often located in a vault, similar to the box enclosing your water meter. Others are housed in round plastic pipe and protected with covers similar to the ones that protect sewer cleanouts. Backwater valves are usually located in front of the house, where the sewer drain exits the building. If you believe your home is subject to backflow, you should try to locate the backwater valve. If your home is equipped with a backwater valve, it should be easily located. These valves have moving parts, and require periodic inspection and maintenance. It is the homeowner's responsibility to do the necessary maintenance.

If you cannot locate a backwater valve in your building drain, you should contact a licensed plumbing company. They can assist you in trying to locate one on your property. If a valve is not found, they can also do the installation if you don't feel capable of doing it yourself. Remember that a plumbing permit is **required** for the installation of backwater valves, and **inspections** of the installations are required as well.

The City of Los Altos Maintenance Division maintains 130 miles of public sewer main lines in Los Altos and unincorporated portions of Santa Clara County. The City appreciates the assistance of citizens in helping maintain this extensive sewer system, and looks forward to responding to any questions or concerns you may have.

To report sanitary sewer backups, call the Maintenance Division at (650) 947-2875 between 8:00 am to 5:00 pm Monday -Friday or (650) 947-2770 after hours. Staff is available day and night to check the main sewer line. If it is clear and flowing, but a blockage is in the lateral, the property owner will need to call a plumber to clear the line.

For questions on sewer mains owned by the City of Los Altos, contact the Engineering Department at (650) 947-2780.

For questions on private sewer laterals, permit requirements, and backflow installation permits, contact the Building Department at (650) 947-2752.

For more sewer information online, go to: www.sewersmart.org