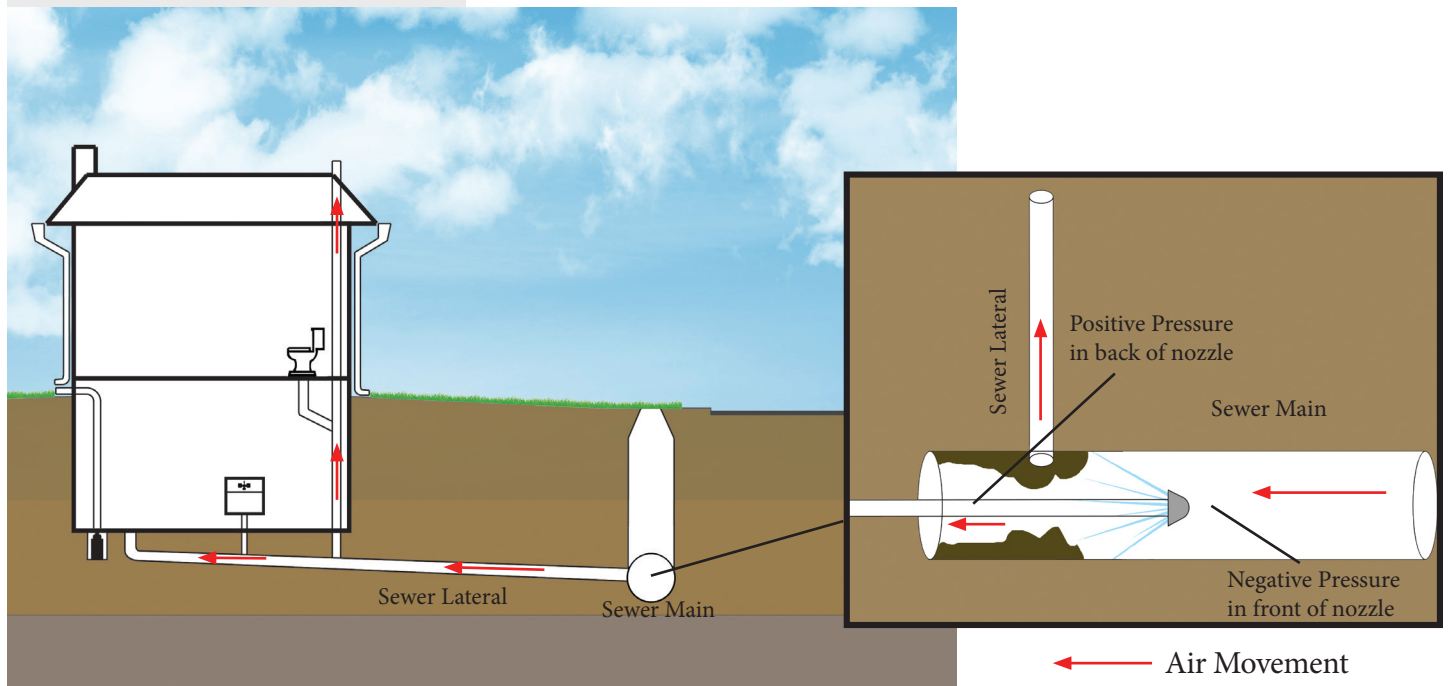


Reasons for Blowback During Sewer Maintenance Cleaning



During the sewer maintenance cleaning process, a jet nozzle and hose are inserted into a manhole, water pressure is then used to propel the nozzle and hose up the line. As the jet nozzle is slowly pulled back to clean the inside of the main and collect the debris at the downstream manhole for removal. This process is used to remove accumulations of roots, grease, sludge, and grit that have built up over time. Through this maintenance effort, the chance of sewer backups is decreased and capacity of flow is restored to the main.

Water is pumped through the jet nozzle at a rate of 50-65 gallons per minute and at 1000-2000 pounds per square inch (psi). During this cleaning process, while the nozzle is propelling itself up the line, a negative pressure is created ahead of the nozzle while a positive pressure is created on the back side of the nozzle. The amount of positive

or negative pressure created by the nozzle varies with the pump pressure and water volume used to propel the hose up the line. As the nozzle moves through the line, it passes house laterals in a fraction of a second, causing a rapid change from negative to positive pressure. This positive pressure pushes back into the service lateral line. If there is nowhere for the positive pressure to go (through a properly vented stack) then it will force its way out through the plumbing fixtures or floor drain, thereby creating blowback. Blowback is an eruption of air and water discharging incorrectly from a plumbing fixture drain.

Blowback can be caused by a plugged vent stack, or inadequately designed plumbing. Since you have notified the Lincoln Wastewater System staff of a blowback problem, we will record your name and address and will attempt to clean the line at minimum

pressures and water volume in the future, even though sewer cleaning efficiency and effectiveness are reduced. With over 1,100 miles of sanitary sewer and over 85,700 customer connections, the Lincoln Wastewater System's Collection Section has found that incidences are rare. Lincoln Wastewater apologizes for your blowback and will do our best in the future to avoid a repeat of this and/or contact you during maintenance activities. Please contact Mike, the Assistant Superintendent of Wastewater Collection, at 402-441-7988, with questions. Our 24-hour emergency telephone number is 402-441-7961.