

The Forestry Division *will not* remove trees which may have roots growing into defective or damaged sewer laterals. A property owner with a damaged sewer lateral is responsible for correcting the problem. If tree roots have grown into the damaged lateral, the property owner should evaluate all available options for effective root removal and control of future root regrowth.

Some plumbing contractors have a special video camera which they run through the inside of the lateral to view the damage and determine the nature of the problem.

The cost of a video inspection may be a worthwhile investment toward an informed decision as to which corrective option is most appropriate for a particular sewer problem.

The most cost-effective method of managing the problem is usually having the roots cut out of the inside of the pipe, followed by a chemical foam treatment to kill any remaining roots inside and surrounding the damaged section of the pipe. Occasional retreatment with chemical foam should ensure prevention of future root growth into the damaged pipe.



URBAN FORESTRY FACT SHEET

ROOTS & SEWERS



SEWER PIPES AND ROOTS

Sewer pipes may become partially or completely blocked for various reasons.

Tree roots are often blamed for damaging sewer pipes and then blocking them. However, root growth into a sewer only occurs where the sewer has first been damaged by other factors.

This damage can be due to poor original construction, the aging and cracking of sewer pipes, soil settlement and the subsequent separation of pipe sections, and the failure of pipe grout joints. Roots do not cause this damage.

Tree roots can grow continuously throughout the year, even in a climate with cold winters. When small, exploratory tree roots come in contact with a leaking or partially collapsed sewer pipe, they are stimulated to grow vigorously, often growing into the damaged pipe.

The air, moisture, and nutrients available to tree roots from a damaged sewer pipe stimulate rapid root growth.

Research has shown that two types of root growth occur in damaged sewer pipes.

Sometimes roots enter the pipe from the bottom and grow along the length of the pipe. Other times roots enter through a crack and grow in a ring around the inside

of the pipe occasionally developing into a complete blockage.

In either case, the stationary presence of the roots in the pipe can become a point at which sewage solids may begin to accumulate. The combination of roots and solid wastes can develop into a partial or complete blockage of the pipe.

By City of Milwaukee Charter Ordinance 12.15, each property owner is responsible for their entire sewer lateral, the sewer pipe running from their house to the large municipal sewer usually found in the center of the street.

There are several treatments available to property owners to correct blockage problems in defective sewer laterals which contain tree roots.

The following list describes some of the options available to City of Milwaukee residents:

Root cutting: plumbing contractors have special cutting equipment for removing obstructions from within a sewer lateral. In the case of tree roots, cutting alone is not a long-term solution to the problem. Roots will usually regrow into the favorable environment of the damaged pipe.

Chemical root inhibitors: some plumbing contractors can also supply chemicals that kill roots and prevent regrowth into damaged sewer pipes.

Copper sulfate has been used extensively in the past to kill roots

growing inside sewer pipes. However, this chemical only controls roots in the bottom of the pipe, since it is transported in the water flowing through the pipe.

A better method of chemical control for roots is a foam which fills the entire inside of the pipe when applied. This foam kills all the roots inside the pipe, as well as roots in the soil surrounding the damaged area of the pipe.

In addition to killing roots inside and around the pipe, the foam impregnates the surface of the pipe with a root inhibitor, creating a chemical barrier to future root growth.

Sewer pipe liners: sometimes it is possible to repair the damaged pipe itself, without excavating, through use of a cast-in-place liner. This system is inserted into the sewer lateral and positioned inside the damaged area of the pipes. The use of a liner may extend the service life of the sewer lateral and prevent future root growth into the damaged area of the pipe.

Replacement of damaged sewer laterals: this is a long-term method of correcting a defective sewer lateral to prevent future root growth and blockage. In comparison to other methods available, the costs associated with this option are quite high.

However, in cases of extensive collapse of sewer lateral pipes, this is likely to be the only effective solution.