Trees and their effects on drains and pipes

Trees play an essential role in making Sydney an attractive, healthy and sustainable city. They provide significant benefits by improving air quality, reducing stormwater runoff, lowering radiated heat from the road and improving the streetscape.

Tree roots can sometimes inadvertently impact sewer and stormwater pipes. It is important to establish the cause of the problem and who is responsible for rectifying it.

Here are answers to some of the most commonly-asked questions.

**Who is responsible for the services of a private property?**
A property owner is responsible for the services to their property. This includes sewer and stormwater pipes and services that run through or adjoin private and public land until they reach infrastructure drainage points such as Sydney Water sewer mains, street gutters or stormwater pits.

**What causes my pipes to leak?**
The most common cause of pipe leakage is old terracotta pipes. Movements in the surrounding soil cause joint failure or cracking causing moisture and nutrients to leak into the soil. Failure of joints between PVC and terracotta pipes is also common. PVC pipe systems have fewer joins and rarely fail.

It’s important to consider repairing or replacing old infrastructure. Many properties have undergone several bathroom and kitchen renovations, but the original sewer and stormwater system may remain. Upgrading essential infrastructure is an important part of owning a property.

**How can trees and their roots impact my services?**
Tree roots grow wherever conditions are favourable. When tree roots come into contact with water or nutrients they will grow with increasing concentration. Tree roots will usually enter pipes that have a fault, which allows the tree to access the available water, nutrients and oxygen.

Tree roots can enter services via leaking joints and blocked pipes, through deteriorated seals, where the joint has failed or been dislodged or through previous damage. It is rare for a tree root to crack into a properly installed and well-maintained pipe.
Once a pipe has deteriorated or is damaged, roots from all different types of trees, plants and even grasses will grow in the pipe.

**How can I prevent tree root damage to my services?**
The most efficient way to prevent root damage to your services is to replace the old terracotta pipes with new PVC or UPVC ones and use pressure seals. Other methods include the type and compaction of the backfill around these services, which help prevent root growth in these areas. Mechanical forms of plumbing equipment can help control root development in pipes, however this is only a short-term solution.

**I think damage to my pipes is caused by a tree on council land, what do I do?**
Where possible you should carry out the repairs and ask us to investigate. If council-owned trees have caused the damage, you may be able to claim for the cost of the repairs. In any event, it is best if you:
1. Obtain three written quotations for the necessary repairs.
2. If the works require an excavation on a council road or footpath, you will need to obtain a road-opening permit from the City.
3. Carry out any necessary repair work to avoid any further damage and/or reduce the hazard. This does not mean the City has accepted any liability for damages. It is the property owner’s decision to carry out repairs.
4. Most importantly, notify the City of the scheduled works so that the City can arrange for an appropriate City officer to inspect the exposed pipe during the works. This will enable all parties to confirm if council tree roots have caused the problem or if the pipe has been damaged for some other reason.
5. While on site, the City officer will take photos to keep on record. You should also keep your own records of the damage and repairs.

If the above investigations reveal the damage has been caused by council-owned trees, you can make a formal claim for the cost of repairs. Include all the above information in your claim and address it to the Risk Management Unit at the City of Sydney. The City will assess liability and make a determination as to whether the City can assist you with the cost of the repairs.

**Why does the City take this approach?**
This approach is required for insurance and governance purposes because the works relate to a private asset and may involve spending public funds on the repair. It is important to have clear evidence for any insurance claim, particularly if there is a chance the initial damage may have been the result of other causes. The clearer the evidence provided, the greater the likelihood of a positive result in any claim.