

FACT SHEET

TREE ROOTS AND THE SEWER SYSTEM

Tree and shrub roots are the number one cause of blockages (or chokes) in sewer pipes. When on the hunt for water and nutrients, roots make sewer and water pipes prime targets.



Some tree roots are as thin as a strand of hair and can make their way through even the tiniest joint between pipes or hairline cracks. Once inside, these tiny roots can grow into a mass or trap nasties put down the sewer, such as wet wipes, cooking fats and oils, and slow the flow of drains, blocking and damaging pipes and leaving a messy clean-up and an expensive plumbing bill.

Root damage can also let stormwater into the pipes, during heavy rain this extra water can overload the sewer system and cause overflows into waterways and pollute the environment; or from the toilet or floor waste inside the house.

If the problem occurs in the property sewer pipes and fixtures, it is the owner's responsibility to have it fixed.

How can I prevent blockages caused by roots?

Prevention is always better than a cure, because tree roots often return to the same pipe were they were cleared from. Council recommends you consider the types of plants growing near your private sewer and water pipes.

Garden plants and grasses have fibrous root systems, which grown on the upper soil layers and are less likely to cause sewer main problems. It is important to consider what size the plant will be when it is fully grown.

Council recommends slow growing trees and shrubs with non-aggressive root systems and to avoid 'tap root' systems which grow vertically downward.

What about trees causing problems now?

Council use a special foam to inhibit root growth in sewer mains, and, in the case of your own pipes, you can get a licensed plumber to do the same or use an electric eel to clear them. As well as removing the roots you should consider fixing the damage in a way, which will minimise future problems. Your plumber can recommend the best solution for your problem.

If you stop plant and tree roots from re-entering your sewer lines you will save yourself the expense of having to keep on clearing them and you will also protect the environment by keeping stormwater out of the sewer.

However, in severe cases you may need to consider removing the offending tree. If this is the case it is vital that you correctly identify which tree is causing the damage.

If Council identify a tree on your property infiltrating the sewer main and causing damage, you will be responsible for removing the offending tree at your cost

How do I lower the risk of blockages from tree roots?

Avoiding damage to your sewer by considering the following when planting trees or planning your garden:

Points to consider when planting trees:

- Plant gardens and trees away from sewer lines.
- Avoid planting species which are likely to cause problems (see included list).
- Consult your local nursery to find out how large a tree or shrub will grow.
- Plants and trees indigenous to your area are often a good choice, as they are adapted to local conditions.

If you are planning on planting a tree, find out where your sewer pipes are located on your property. Contact Council on 02 6578 7290 to find out more.

Did you know some tree species roots, for example willows and poplars, can be found more than 30 metres from the tree base?

Tips to Avoid Pain in the Drain

Fine hair roots will seek out and penetrate even small cracks or joints in pipes. In addition, the force from larger roots can crack previously sound pipes, creating an entry point. Once roots have entered a pipe they grow quickly and can cause serious and costly failures in pipe systems.

It's much better to avoid the cause of tree root problems rather than face an inconvenient and costly remedy after the damage has been done.

- Don't plant too close to sewer pipes – as a general rule, at least three metres from the pipe.

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- Avoid planting near freshly laid pipes as roots are attracted to softer soil.
- If you're not sure where your pipes are, request a drainage plan from Council.
- Contact **Dial Before You Dig** so you know where sewer pipes and other utilities are located.
- Ask your local nursery to recommend plants with non-invasive roots.
- Install a root barrier – available from hardware stores and nurseries; root barriers are made from heavy cloth or plastic and are placed in the ground to contain a plant's root system.



SOME PLANTS TO AVOID

It is a good idea to get professional advice on garden design where possible. As a general rule, a tree's roots will generally extend about one and a half times the distance of the adult plants branches. The following lists suitable tree species which should be planted at least 2 metres to 4 metres away from sewer pipes and as well as plants that should be avoided.

Please be aware these lists are provided as a basic guide only. You should consult your local nursery or an arborist if you still have concerns about planting a particular species.

Plants to Avoid Planting – High to Extreme Damage Rating

- Camphor Laurel (*Cinnamomum camphora*)
- Fig Trees and Rubber Plants (*Ficus species*)



- Poplars (*Populus species*)
- Willows (*Salix species*)
- Coral Trees (*Erythrina species*)
- Large Gum Trees (*Eucalyptus species*)
- Jacaranda (*Jacaranda mimosifolia*)
- Liquidambar (*Liquidambar styraciflua*)
- Norfolk Island & Bunya Pines (*Araucaria species*)
- Illawarra Flame Tree (*Brachychiton acerifolium*)
- Casuarinas (*Casuarina species*)
- Australian White Cedar (*Melia azedarach*)
- Pine Trees (*Pinus species*)
- Plane Tree (*Platanus acerifolia*)
- Pepper Tree (*Schinus molle*)
- Elms (*Ulmus species*)
- Bougainvilleas (*Bougainvillea species*)
- Pampas Grass (*Cortaderia selloana*)
- Silky Oak (*Grevillea robusta*)
- Hollies (*Ilex species*)
- Norfolk Island Hibiscus (*Lagunaria patersonii*)
- Privets (*Ligustrum species*)
- Magnolias (*Magnolia species*)
- Oleander (*Nerium oleander*)
- Canary Island Date Palm (*Phoenix canariensis*)
- Bamboos (*Phyllostachus species*)
- Rhus Trees (*Toxicodendron species*)
- Brush Box, Tristania (*Lophostemon confertus*)

Plant no Closer than 2 metres from Sewer

- Box-leaved Wattle (*Acacia buxifolia*)
- Evergreen Spindle Tree (*Euonymus Japonica*)
- Flowering Crabapples (*Malus species*)
- Blackwood (*Acacia melanoxylon*)
- Crimson Bottlebrush (*Callistemon citrinus*)
- Sweet Pittosporum (*Pittosporum undulatum*)
- Evergreen Alder (*Alnus jorrulensis*)
- Australian Pyracantha (*various species*)
- Heath Banksia (*Banksia ericifolia*)
- Water Bush (*Banksia occidentalis*)
- Pink Crepe Myrtle (*Logerstroemia indica*)

Plant no Closer than 4 metres from Sewer

- Smooth Barked Apple Myrtle (*Angophora costata*)
- Aurea Golden Ash (*Fraxinus excelsior*)
- Pagoda Tree (*Sophora japonica*)
- Silver Birch (*Betula pendula*)
- Bracelet Honey Myrtle (*Melaleuca armillaris*)
- Rowan Mountain Ash (*Sorbus aucuparia*)
- Prickly Paperbark (*M. styphelioides*)
- Chinese Wisteria (*Wisteria sinensis*)



RELATED INFORMATION

- Sewer Blockages Fact Sheet
- Protecting the Sewer System Fact Sheet
- Water and Sewer Group Customer Service Plan

DISCLAIMER

Council consider it unlikely that damage to your sewer pipes will result if the recommended minimum distances are maintained when planting trees or shrubs, but we cannot guarantee this as we have no control over factors such as the condition of your pipes, availability of water, etc.

FURTHER INFORMATION

For more information on a healthy sewer system contact Council on:

T. 02 6578 7290

E. council@singleton.nsw.gov.au

W. www.singleton.nsw.gov.au

