



# What is a Tree Protection Zone? (TPZ)

## **What is a Tree Protection Zone (TPZ)?**

A tree protection zone (TPZ) is an area surrounding a tree that is designated for protection during construction or development. The purpose of the TPZ is to minimize damage to the tree's roots and to prevent damage to the tree's trunk and branches. The size of the TPZ is determined by a calculation based on the diameter of the tree at breast height (DBH), which is typically measured at 1.4 meters above the ground. The TPZ is calculated by multiplying the DBH by 12, which provides the radius of the TPZ in meters.

## **Why is a TPZ Important?**

Trees are living organisms that rely on their roots to anchor them in the ground, and to absorb water and nutrients. When construction or development takes place near a tree, the roots can be damaged by excavation, compaction, or changes in soil moisture. This damage can lead to a range of problems, including reduced growth, increased susceptibility to disease and pests, and even death of the tree. By designating a TPZ, we can minimize damage to the tree's roots and ensure that the tree remains healthy and strong.

## **How is a TPZ Calculated?**

The size of the TPZ is based on the diameter of the tree at breast height (DBH), which is typically measured at 1.4 meters above the ground. The TPZ is calculated by multiplying the DBH by 12, which provides the radius of the TPZ in meters.

*For example, if a tree has a DBH of 50 centimeters, the TPZ would be calculated as follows:*

*TPZ = DBH x 12 TPZ = 0.5 meters x 12 TPZ = 6 meters*

*In this case, the TPZ would have a radius of 6 meters.*

## **How is a TPZ Marked?**

Once the TPZ has been calculated, it's important to mark the area to ensure that it is protected during construction or development. This can be done using fencing, barricades, or other physical barriers. The TPZ should be clearly marked with signs indicating that it is a protected area, and that no construction or excavation should take place within the TPZ

*The AS 4970-2009 Calculator is a free web app based on the Australian Standard® AS 4970-2009 Protection of trees on development sites. The calculator allows you to calculate tree protection zones (TPZ/SRZ) and two types of encroachment. The calculator accepts circumference or diameter measurements and can calculate DBH for multi-stemmed trees. <https://as4970calculator.web.app/>*

