

# Urban Salinity in Bendigo

## What is urban Salinity?

As with dryland salinity, urban salinity has occurred because of the clearing of deep-rooted native vegetation.

The replacement of native vegetation with shallow-rooted garden plants and lawns has created an imbalance in the water cycle.

These plants are unable to use the excessive amounts of water we apply, allowing large amounts of water to escape past the root zone and into the ground.

Other factors leading to urban salinity include leaking sewerage, stormwater and water pipes and altered drainage patterns due to the installation of roads, buildings and other infrastructure.

Over time, the groundwater system underneath the city has filled and groundwater has risen close to the surface in low-lying areas, bringing with it dissolved salt stored in the weathered rocks deep below the ground.

This is called 'saline groundwater discharge'. Salty groundwater is also seeping into the Bendigo Creek, resulting in a salt load of approximately 4500 tonnes per annum.

## What are the signs?

In Bendigo 'saline groundwater discharge' is impacting in many ways:

- Waterlogged soil
- Growth of salt tolerant species such as spiny rush
- Bare patches of ground often with a white crust on the surface
- Unhealthy or dead trees and other vegetation
- Damage to structures such as pavements, roads, bricks and mortar
- Corrosion and damage to underground pipes



## Urban Groundwater Salinity Process

