## GROUNDWATER GUARDIANS



Groundwater balance BEFORE tree clearing



Groundwater balance AFTER tree clearing

### **RESTORING THE WATER BALANCE**

The long term solution to salinity involves restoring the balance of inputs and outputs of the soil-water system, by controlling the process of groundwater recharge.

Strategic tree planting, as part of whole farm and catchment plans, continue to be implemented across the North Central region to help reduce the impacts of salinity through recharge management.

In dryland areas, large scale establishment of deep rooted plants such as native trees and Lucerne are necessary to restore the water balance.

Techniques for irrigation areas may include increasing irrigation efficiency, drainage and re-use systems, groundwater pumping, and re-layout of land to facilitate drainage and water application.

This poster was produced as part of the Australian Governments Community Stream Sampling and Salinity Mapping Project

# Australian Government Department of Agriculture, Fisheries and Forestry Bureau of Rural Sciences

Department of the Environment and Heritage



### **SALINITY and GROUNDWATER**

Salinity problems in Victoria have resulted largely from human activities which have modified the natural distribution of salt in the landscape.

Many salt affected areas in Victoria were previously covered by deep rooted, native vegetation, which helped to keep the watertable well away from the soil surface.

When the watertable reaches a level of 1 or 2 meters from the ground's surface the water moves by capillary action, bringing salt with it. Water evaporates, however the salt remains within the surface layer of the soil. Over time this causes the soil to become saline and limits vegetation growth. The salt can also make its way into waterways, causing degradation of river health.

At elevated salinity levels salt sensitive plants begin to die, leaving the soil prone to erosion.



This river is well vegetated and does not suffer from salinity or erosion problems.



This river lacks vegetation cover and suffers from salinity and erosion problems.

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#### NORTH CENTRAL Catchment Management Authority