

# Kamarooka Saltland Restoration Project

## Fact Sheet



During 2003 the Northern United Forestry Group (NUFG) decided it was time to tackle the salinity issues at Kamarooka in North Central Victoria. The NUFG was successful in gaining funding for the project and in 2004 and 2005 began analysing soils, preparing strategies and re-vegetating the land.

The Kamarooka project aims to establish and manage halophytic vegetation (largely saltbush) on the most degraded salt affected land, along with salt tolerant native trees, shrubs and grasses in adjacent land moderately affected by salinity. It attempts to recover the saline wastelands at Kamarooka for the purposes of both ecological function and agricultural production.

In 2021, the results of extensive research proves the capacity of eucalypts to transpire shallow saline groundwater. The hydrograph below shows data from just two bores that contrast the impact of the 2004 eucalypt plantation with saline land that was planted with only a little saltbush cover some 50 metres to the south. The graph demonstrates the profound impact of the plantation on the shallow groundwater.

At the commencement of the project the watertable was within 1.5 metres of the land surface. It is clear that it was beginning to fall within three years of the establishment of the plantation and despite the interruption imposed by the 2010 floods groundwater continued to fall. In 2014 it fell below the monitoring bore and has remained this deep through to the present day. The water level can no longer be read so it has been plotted as a flat line at the maximum depth of the bore.

In very strong contrast the bore in the saline land adjacent the plantation displays a trend that follows the rainfall, showing a profound rise, for example, in response to the wet spring of 2016.

Clearly, the contrast between the two bores demonstrates the capacity of the 2004 plantation to command control of the water balance. The trees are able to use the saline groundwater (>30,000 uS/cm) to support transpiration and mitigate groundwater recharge.

The Kamarooka results are unique in terms of the long-term monitoring of the performance of Eucalypt plantations on shallow saline groundwater in dryland terrain in southeastern Australia.

