

1 Introduction

The Timor West targeted area is located in Central Victoria on the northern slopes of the Great Dividing Range (Figure 1). The Timor West targeted area covers approximately 16 000 ha and is enclosed between the Bealiba and Black ranges. It includes Mount Hooghly, Black Range, Bealiba Range and the communities of Wareek and Timor West. Bet Bet Creek defines the southern boundary of the target area. Emu Creek cuts through the central area, south of Mount Hooghly, draining into Bet Bet Creek. Carmanual Creek cuts through the area north of Mount Hooghly, meeting at a confluence with Emu Creek, then drains into the Bet Bet Creek also.

Groundwater and salinity processes in the Timor West targeted area are influenced by both local and intermediate groundwater flow systems. Being one of the highest priority dryland salinity areas in the North Central region, the Timor West targeted area is an obvious candidate for investment under the implementation phase of the NAP program.

This report gives an up-to-date interpretation of groundwater levels and hydrographs trends observed in the groundwater monitoring network within the Timor West targeted area with special reference to the installation of new groundwater monitoring bores. As part of the project, six new monitoring bores were installed to fill gaps in the existing groundwater monitoring network. The new bores have been positioned to provide transects across the targeted area and to complement the monitoring of existing remediation works.



Figure 1 Location map of Timor West targeted area

Climate

The climate has had a significant effect on the groundwater levels and trends in the Timor West targeted area. To determine an accurate analysis of groundwater behaviour, groundwater trends are compared to the annual rainfall to determine whether there is a correlation between the two. All bores monitored by DPI show a fall in the waterlevel, which reflects the low rainfall of the past seven years. Rainfall data from the Dunolly rainfall station shows that for the past 10 years, five have been well below the 22 year average (Figure 2).

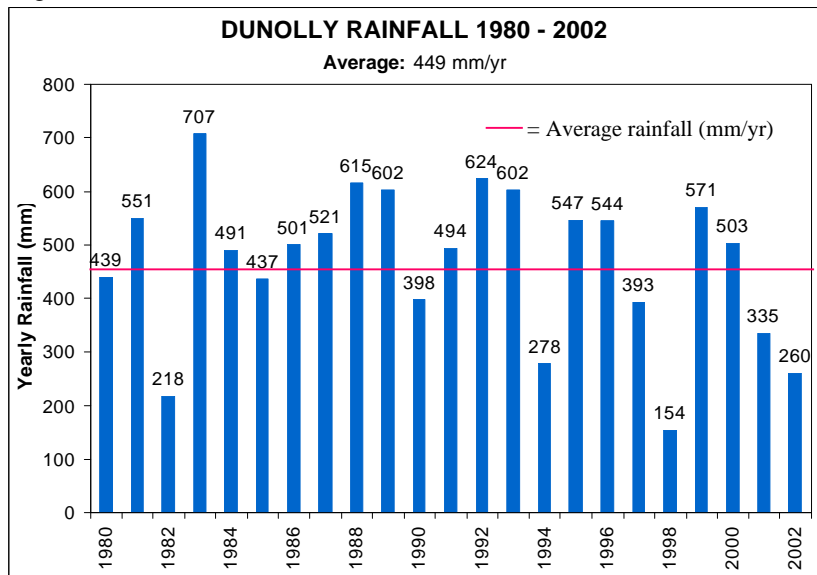


Figure 2 Chart showing Dunolly rainfall for the past 22 years

The average yearly Class A pan evaporation measured at the Dunolly rainfall station is 1512 mm, three times the annual rainfall for Dunolly.