

### **3. Salinity Management Areas**

The plan area is shown in Figure 1 and includes the West Gippsland Catchment Management Authority region plus an additional area in the East Gippsland Catchment Management Authority region to cover the salinity in the Bengworden Salinity Management Area (also known as the “Red Gum Plains”). The East and West Gippsland CMAs decided to include the Bengworden Salinity Management region in this plan due to the similarity of salinity problems and solutions across the CMA boundary.

Given the significance of groundwater flow systems to both the causes and remediation of salinity (Section 2.1), the division of the region into areas of different groundwater flow systems is a useful method for planning management options for the various isolated systems. For the purposes of this plan, the West Gippsland CMA region has been divided into 15 ‘Salinity Management Areas’ shown in Figure 1. The Salinity Management Areas were primarily based on areas of similar groundwater flow systems (see Appendix A for more information on Groundwater Flow Systems).

The groundwater flow systems in and around the Macalister Irrigation District are reasonably well understood and the Clydebank, Nambrok, Heyfield, Maffra and Boisdale Salinity Management Areas have been used as a basis for the planning and implementation of salinity control measures for several years. Similarly, the groundwater flow systems operating in the Bengworden region are also well understood from investigations conducted in the area (Sinclair Knight Merz, 2003).

Conversely, there have been no investigations of the groundwater flow systems operating in the rest of the region including South Gippsland, Latrobe Valley and the area to the south of the Gippsland Lakes. Consequently, the divisions made between Salinity Management Areas in these regions are more arbitrary and based on surface water catchment boundaries and geology. There is a strong need to investigate the groundwater flow systems contributing to salinity in these regions which will enable the boundaries between the Salinity Management Areas to be redefined. Therefore, the Salinity Management Areas shown in Figure 1 should be viewed as interim only until more detailed groundwater flow studies are complete.

In addition to groundwater flow systems, some of the Salinity Management Areas are defined using vegetation and surface water features. For example, the Walhalla Salinity Management Area is defined as the treed highland area. This vegetated area was singled out from the cleared area due to the dominance of high water using native vegetation with minimal groundwater recharge. Consequently, this vegetated area is not likely to be contributing to the irrigation and dryland salinity occurring down-gradient and can, therefore, be largely ignored when planning management actions.

The Salinity Management Areas shown in Figure 1 are used throughout the rest of this plan. Characteristics of each of the Salinity Management Areas are described in Appendix A.