

**PROPOSAL FOR THE PROCLAMATION OF THE
CATCHMENT TO GROUNDWATER BORES IN
THE PARISH OF MOCAMBORO
(MERINO WATER SUPPLY CATCHMENT)**



Prepared for consideration by the
LAND CONSERVATION COUNCIL

April, 1985

Prepared by the
LAND PROTECTION SERVICE
DEPARTMENT OF CONSERVATION, FORESTS AND LANDS
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INTRODUCTION

This report is a brief statement about the current situation of the Merino Water Supply Catchment and is presented for consideration by the Land Conservation Council.

The Western Victorian township of Merino (population 300) and approximately 20 outlying rural properties obtain domestic water supply from two groundwater bores. The intake area ("catchment") of 5,100 ha has been delineated by the Department of Minerals and Energy using geohydrological criteria. The Catchment is located 50 km west of Hamilton in the Parishes of Stanford, Mocambo and Weecurra; part of the County of Normanby, within the Shire of Glenelg.

Proclamation will encourage a consistent approach to proper planning and management, in order to protect the Catchment for water supply purposes, by bringing to the attention of planning and management bodies and private landholders the need for careful management of land within the Catchment. Proclamation also requires that proposals for subdivision, extractive industries and some mining activities receive comment relevant to catchment interests during the process of consideration.

Climate and Geography

Climatic and geographic characteristics of the Catchment are presented in Table 1.

Table 1 - Climate and Geography

Catchment area	5,100 hectares
Rainfall	700 mm per annum
Evaporation	600 mm per annum (net)
Geology	Quaternary sands, Tertiary sandstones, marls and limestone
Soils	Coarse loamy sands
Vegetation	Unimproved pasture (760 ha) Dry sclerophyll forest (3,843 ha) Softwood plantation (477 ha)
Elevation	100 - 185 metres
Topography	Flat to undulating
Relief	10 - 20 metres

Land Tenure, Management and Use

Land tenure, the responsible land management bodies and land use within the Catchment are presented in Table 2.

Table 2 - Land tenure, management and use

Tenure	Management Body	Land Use
Public land (1,620 ha)		
Timber Reserve (477 ha)	Department of Conservation Forests and Lands	Softwood plantation
Water Reserve (1,060 ha)	Department of Conservation Forests and Lands	Water production
Uncommitted (73 ha)	Wannon-Glenelg Water Board Department of Conservation Forests and Lands	Recreation
Private Land (3,480 ha)		Grazing, timber production

The Supply System

The two production bores, about 2.2 km apart, tap a multiple aquifer system at depths between 1 and 85 mm. Their cones of influence are some 400 m in radius. The aquifers rely on vertical infiltration of rainwater for recharge with responses to rainfall occurring within a few days. Water is aerated in the bore, pumped to the surface and piped to a retention basin (20 ML capacity) near Merino township. At present the system supplies 50 ML annually. The supply system is managed by the Wannon-Glenelg Water Board.

Hazards to the Water Supply

The major issues confronting management for water supply purposes include small lot subdivision, development of softwood plantations, herbicide and fertiliser use.

The Department of Minerals and Energy has expressed concern that the development of softwood plantations on private land, may affect interception and evapotranspiration rates leading to a diminution of the amount of water available to recharge the shallow aquifer.

Long term protection of supply is sought, to ensure an adequate quantity of water will be available for future developments. Annual recharge amounts to 120 ML with a projected withdrawal of 1000 ML per annum.

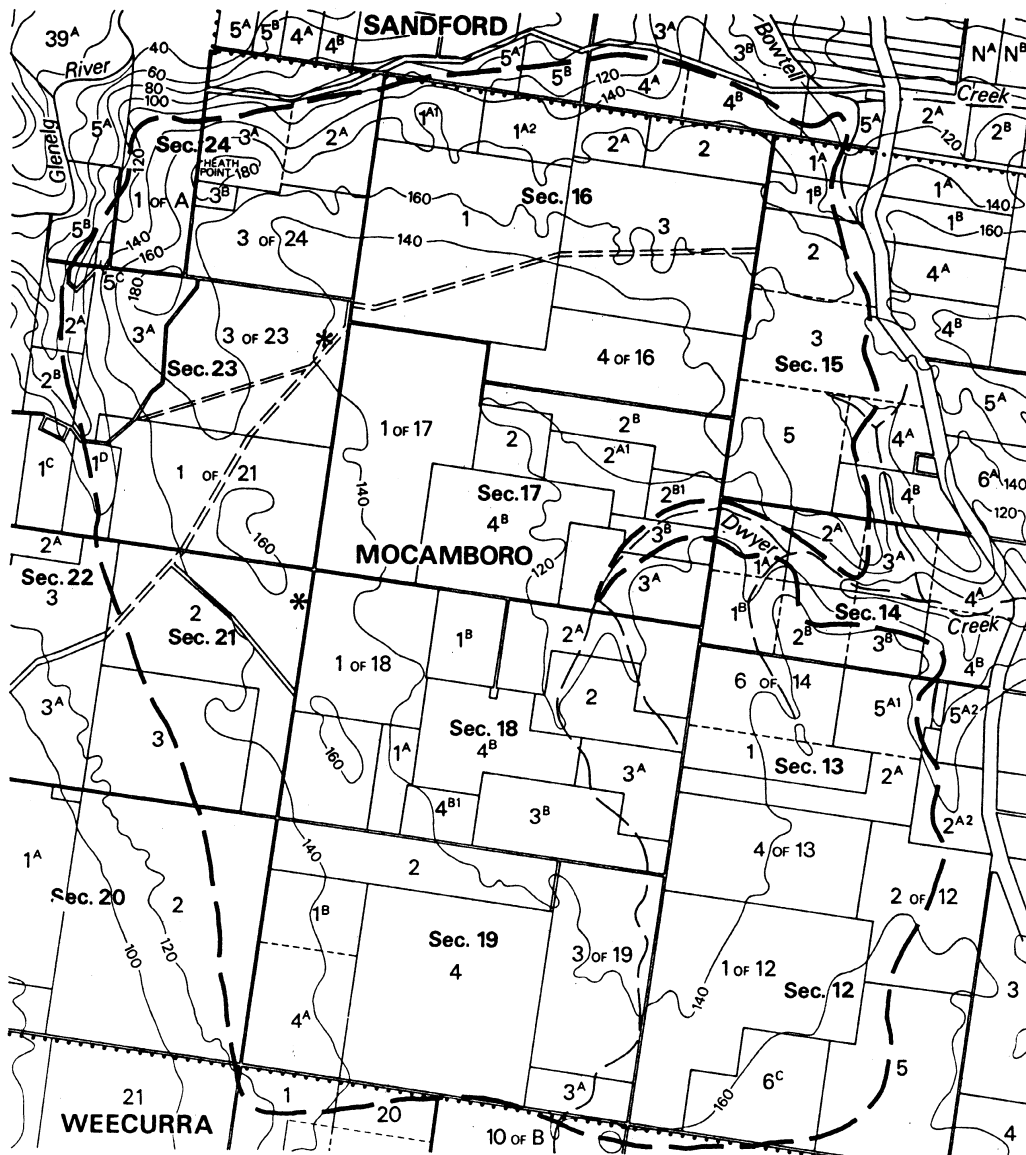
A further concern is that herbicide, fertilisers, septic effluent or waste from intensive animal industries may pose a threat to the soil profile may not allow sufficient detention time to allow degradation of pollutants or herbicides such as "Roundup", "Velpar" or "Lontrel". In time of rapid drawdown such compounds might readily access the water supply.

These are the means by which the S.C.A. expects to meet its objectives for sound land management within the Catchment. It will require the combined efforts of the extension and advisory services of the Department of Conservation, Forests and Lands, local government, landholders and public land managers.

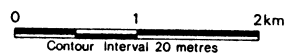
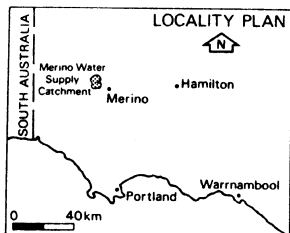
RECOMMENDATION

That the Land Conservation Council recommends to the Governor-in-Council that the Merino Water Supply Catchment as shown on Plan No. S-1403 be proclaimed under section 22(1) of the *Soil Conservation and Land Utilisation Act* (1958).

MERINO WATER SUPPLY CATCHMENT



PLAN NO. S-1403



- Legend
- Catchment boundary
 - Parish boundary
 - Parish name **SANDFORD**
 - Crown allotment boundary
 - Crown allotment number
 - Rivers and creeks
 - Road reserve
 - Water production bore
 - Contour