1. INTRODUCTION

1.1 Location of Study Area

The Tanjil River is a major tributary of the La Trobe River which it joins 86 km before the La Trobe discharges into Lake Wellington. The Catchment to the Tanjil River is located approximately 105 km due east of Melbourne and extends over an area of 509 km² (Refer Fig. 1). The headwaters of this river originate on the Baw Baw plateau and the basal point for this study is the offtake for the Moe Waterworks Trust and Sewage Authority, located near the Moe-Walhalla road some 25 km south of Mt. Baw Baw and 5 km north of Moe.

1.2 Purpose of the Study

Due to its proximity to expanding industrial and urban centres in the La Trobe Valley, the Tanjil River Catchment is subject to steadily increasing pressure for subdivision of rural land for residential purposes. In view of this development pressure and a proposal from the Moe Waterworks Trust and Sewage Authority to harvest catchment water for domestic use, the Soil conservation Authority became concerned about possible adverse affects of further development on the land itself and on the quality and quantity of its runoff water. This study was therefore initiated to provide information on the land and resource of the catchment, in particular its soil, to enable an assessment to be made of the capability of the land to support increased rural residential subdivision.

The primary client for the information is the Soil Conservation Authority, which is responsible for the determination of appropriate forms of land use within a proclaimed water supply catchment and for the mitigation of soil erosion. Factual information on the land resources and on their capability greatly assists both these tasks. Additional users of the information are likely to be both local and regional planners within the Shire of Narracan and the Department of Planning.

1.3 Land Capability

The assessment of the capability of land to support rural residential subdivision involves a consideration of the following factors.

1. whether the natural features of the land will adversely affect or limit the proposed use;

2. whether the proposed forms of land use will adversely affect the land environment beyond acceptable limits.

Before considering these however, it is necessary to define ‘rural residential development’. For the purpose of this study it was assumed such development would involve subdivision or rural land into blocks of from 2 to 10 ha each requiring a house site, a low cost (unsealed) access road, an on-site domestic effluent disposal area and possibly a site for a small farm dam.

With regard to the first factor, the major requirements of the land are that it be stable and suitable effluent disposal area. Naturally, if such conditions are not already present they can be artificially created or the limitations can be overcome, however this usually involves substantial economic or environmental cost penalties.

With regard to the second factor, it is necessary to assess whether such development activities are likely to cause unacceptable levels of soil erosion and whether or not effluent disposal poses a risk of contamination to runnoff water and hence to the domestic water supply.

The Soil Conservation Authority has developed a number of land capability rating systems which are used to assist land resource surveyors evaluate the capability of land for proposed uses. These rating systems have been developed for a wide range of land uses, including those associated with rural residential subdivision, and enable land to be rated on a five class scale. On this scale, land is rated from Class 1, with very high capability for a specified use, through to Class 5, which has a very low capability for the same use.

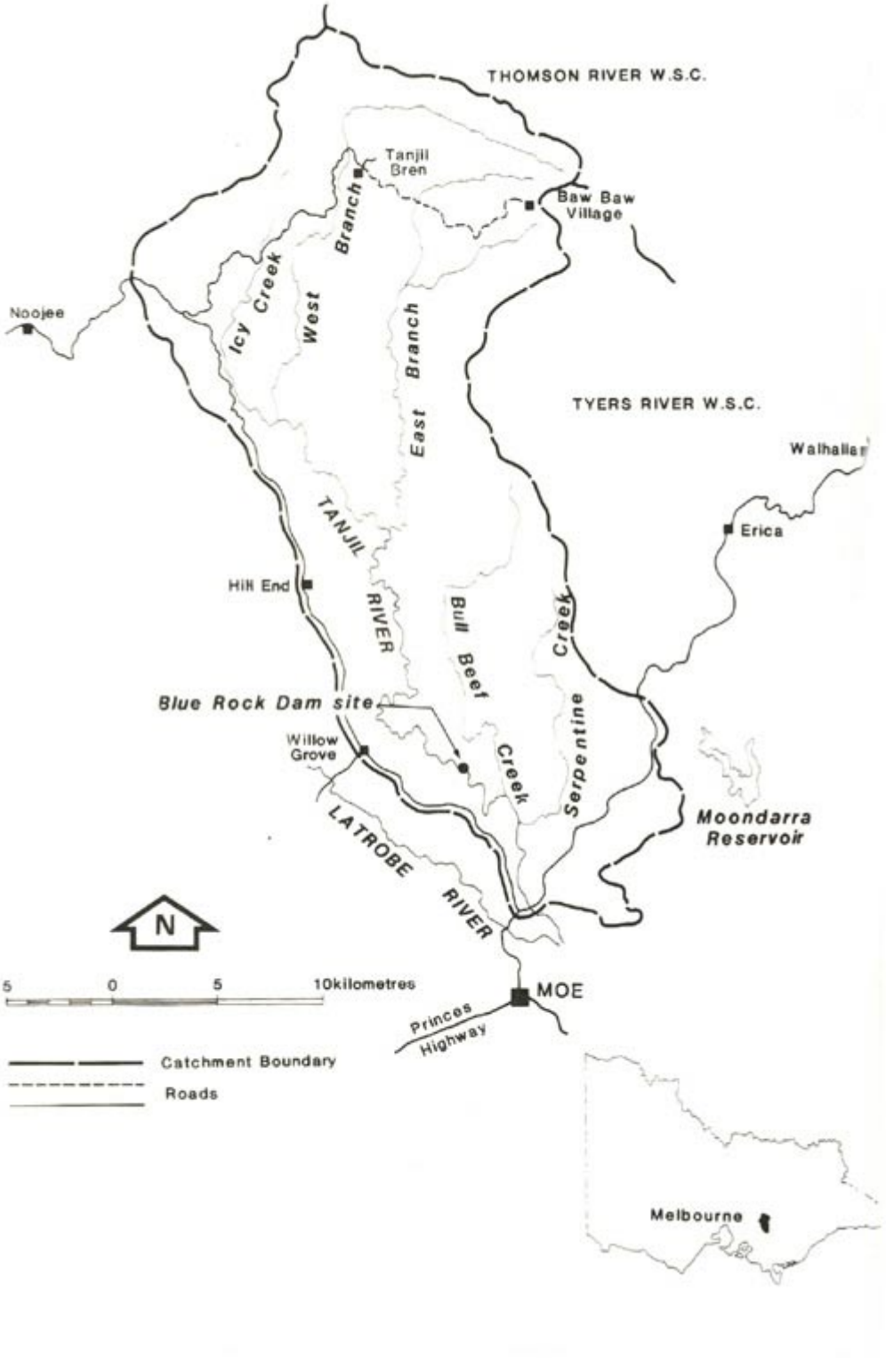

Fig 1 – Tanjil River Catchment Locality Map

Land capability ratings reflect the level of physical limitations presented to a proposed form of land use. The ratings are applied to areas of land which are reasonably uniform with respect to landform, slope and soil properties. In this report these areas of land are called 'basic mapping units. By reflecting the level of physical limitations present, land capability ratings also indicate the likely level of development costs and management inputs that will be required to provide and maintain desirable land conditions.

In assessments if land capability, conclusions are based on averages and other generalisations derived from a limited number of field inspections. Although the ratings provide a sound guide for choosing land for a particular land use within the area assessed, they should not be used as a substitute for on-site surveys when specific information is needed. In addition, the assessment of land capability is concerned only with the physical features of the land and takes no account of external socio-economic factors which must influence planning decisions.