1. INTRODUCTION

1.1 Introduction

Land varies considerably in its basic characteristics and in its response to the demands made upon it. Such demands include the production of food, wood fibre, water, and development for residential, industrial and recreational purposes.

Land managers and planners need to match the requirements of land use with the capability of the land to sustain that use and thereby avoid land and water degradation. Prior knowledge of soil and land limitations can prevent unnecessary and costly mistakes.

Planning schemes developed and implemented by local government provide an effective means of managing changes in land use. A planning scheme may prohibit or place conditions on land use not well suited to a land type. Information obtained through land capability assessments can provide the necessary data to assist local government with planning decisions and the preparation of planning strategies for the future.

This report provides land resource information for broad-scale planning within the Shire of Romsey. It does not provide recommendations for land use and no allowance has been made for social or economic considerations that may influence planning proposals. It is primarily an examination of potential consequences and levels of management required for a range of land uses.

1.2 User's Guide

The user guide is designed to assist document users in finding and cross referencing information contained within the report. Each section of the report is listed below with a brief description of the contents and the relationship to other sections.

Summary: The summary contains the land capability classes for each form of land use and map unit. Refer to section 4 and Appendix B for a detailed description of map units and capability classes.

Section 1: The introduction highlights specific planning concerns within the Shire of Romsey and identifies how land capability assessment can be utilized as a sound base for future rural planning.

Section 2: The land capability assessment section describes the DCNR approach to land capability assessment. Table 2.1 and 2.2 highlight the limitations to development and management guidelines for each land capability class. The land use rating tables are contained in Tables 2.2 to 2.6; they are used to determine the capability classes for each map unit. Refer to section 3 and Appendix A for a further description of the parameters that influence each form of land use, and Appendix B for the capability class assigned to each parameter in each map unit.

Section 3: The land management guidelines section describes important landform and soil characteristics which place limitations on land use, and explains how improved land management may reduce or overcome the perceived limitations. Refer to Appendix A for a further description of the parameters that influence land use.

Section 4: This is the core section of the report and contains individual map unit descriptions and land capability classes for each map unit. The dual page format provides general and specific landform and soil information, including susceptibility to land degradation. The land capability assessment lists the capability class and the major limiting feature(s) for each form of land use. Refer to appendix B for other limiting features not listed as the major limiting feature(s).

Section 5: The description of the environment contains background information on geology, soils, land systems, existing land uses, forms of land degradation, climate, native vegetation and proclaimed water supply catchments.

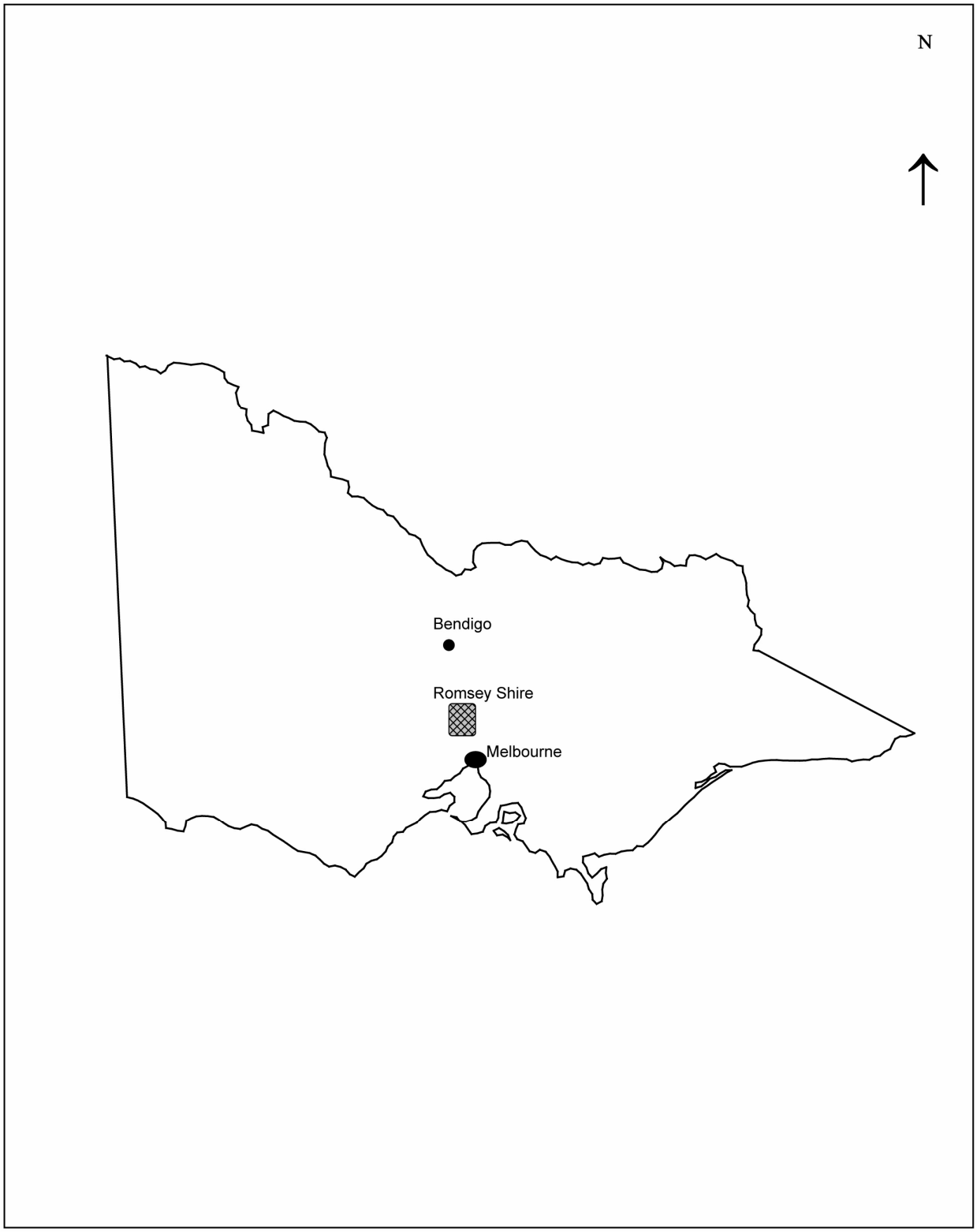
Section 6: The Mount William Range has been described separately due to the inherent variability of the geology and soil types in this area. The area has been divided into 3 complex map units, based on soil type, drainage and land degradation. The user is specifically directed to this section for specialized map unit descriptions of the Mount William Range.

Appendixes: There are six appendixes contained in the report. Appendix A describes the parameters that influence land use and outlines the methods used to determine the capability class. Appendix B contains the land capability classes for each land use and each map unit. Appendix C describes the methodologies used for the land capability assessment. Appendix D lists the physical and chemical results of major soil types in each map unit. Appendix E provides a method of establishing recharge (soil permeability) values for various soil types. Appendix F lists the common native vegetation found within the Shire of Romsey.

1.3 Location

The Shire of Romsey is located 50km north west of Melbourne as shown in Figure 1.1.

Figure 1.1 Location of the Shire of Romsey



1.4 Purpose of the study

The Shire of Romsey is predominantly rural but is experiencing increasing pressure from urban expansion. The relatively low cost of land, easy commuting distance to Melbourne and the rural environment makes the area attractive for residential development. Land that was once agricultural or forested is being converted into rural residential lots, particularly on the fringes of the townships of Lancefield, Romsey and Riddells Creek.

In planning for the future use of land in the Shire, there is a need to preserve the qualities that make this area attractive whilst also accommodating population growth. It is also important to preserve better agricultural land and farming because of its significant input into the economy of the region.

To ensure a sound base for future planning strategies, the Shire of Romsey requested a land capability study by the Department of Conservation and Natural Resources.

1.5 Objectives

Major objective:

To provide land resource information to the Shire of Romsey that will facilitate the planning of future land use through a systematic and rational examination of management requirements, and consequences of a range of alternative land uses.

More specifically:

i) To identify and describe areas of common geology, topography and soil type at a scale of 1:25 000. Major public land blocks are excluded.

ii) To assess the capability of each map unit to support particular uses identified as important by the Shire. These include:

Agriculture
Effluent disposal
Farm dams (earthen)
Building foundations

iii) For each map unit, provide information relating to erosion risk, potential recharge to the groundwater system and other degradation processes.

iv) To support the Department of Conservation and Natural Resources field staff in their extension and support role to the Shire.