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PART 1 BACKGROUND

1 INTRODUCTION

Land is known to vary widely in space. Variations in geology, geomorphic processes, climate and the time in which land has been forming all dictate the type, and to some extent the quality of our land. As a result of the variation, land can 'behave' differently under applied pressures such as climatic forces, or land use and management practices. The difference in behaviour can result in land degradation when the applied pressures are beyond the capability of the land. Sustainable management of the land requires knowledge of the nature of the land, its spatial variation, and how the land is likely to behave under differing pressures.

A means of identifying, quantifying and understanding this variation in the nature of the land is required. While there have been many approaches to the description of land, the land system approach to land mapping has been developed to meet particular needs for information on the spatial and morphological nature of the land and its likely behaviour under a variety of uses. The land system approach emphasises ecological patterns of land use and has been used as a rapid assessment technique for land areas.

The Statewide Land Systems are a compilation of regional land resource data collected from across Victoria over the past forty years. The regional information, taken from a range of studies with minor variations in scale, technology and purposes, has been brought together into a single and consistent set of maps for full state coverage (1:250 000), and a land attribute dataset describing the key features of the Statewide Land System. The nomenclature of the resultant Statewide Land System map units has been structured to allow groupings of related land types based on key features of the landscape. Linkages to the original regional and more detailed data sets have been retained.

As the only consistent coverage of the nature of the land for Victoria, the Statewide Land Systems are particularly useful in preparing state and regional perspectives of the landscape i.e. the nature of the land, it's capabilities and condition. It has considerable value as a basis for ordering data on a range of elements of the landscape that are at least partially dependent upon the nature of the land for their form or distribution. The data set is also very useful for defining and explaining the range of variation in characteristics and capabilities facing a land manager as a basis for improved management.

This report describes the rationale behind the Statewide Land Systems approach, and provides descriptions of the approximately 1 200 mapped Land Systems.

Information of the Statewide Land Systems including maps can also be obtained from the WEB on <u>http://CLPRWEB/LSYS3</u> (available Sept. 1999).