



Lake Buffalo – situated on the Buffalo River – helps maintain summer flows to ensure supplies of water for agricultural and domestic use

## SUMMARY

This study provides information on the physical characteristics of the land in the catchments of the upper Ovens and King Rivers and associated tributaries south of a line running approximately north-east through Moyhu and Whorouly.

Except for the south-western corner of the area, where Lower Devonian acid lavas underlie Carboniferous sedimentary rocks and some Eocene basalt, the dominant rocks are Middle to Upper Ordovician non-calcareous sediments. The Mount Buffalo massif is a major granitic intrusion near the centre of the study area, and others occur around Mount Stanley, Mount Emu, The Pinnacles and Mount Selwyn and at Abbeyard. The southern part of the area is mountainous, with narrow valleys that gradually widen to the north, where relatively mature topography comprises broad alluvial-colluvial valley floors separated by hilly or low mountain divides. Numerous small plateaux occur in the south-west, where cuestaform features are also common.

Much of the area has a temperate climate — rainy with dry warm summers (after Koppen) — although the high country in the south has almost a snow climate, and in the north the summers are almost hot enough for a dry, hot classification. Average annual rainfalls range from about 700 mm in the north to more than 1900 mm in the south.

Soils in the area are almost entirely acidic; they can be broadly separated into gradational or medium-textured uniform soils on the steeper slopes in the south and in the higher-rainfall areas, and duplex soils on the less-steep terrain in the north. Very humic soils occur on the highest landscapes.

The vegetation is strongly influenced by the climate. Eucalypts are the dominant species in the open forest or woodland formations that cover most of those parts of the study area still remaining uncleared. Heath, grassland, herffield and bog and fen communities are found mainly at the higher altitudes.

In general, the area remains under native vegetation and the forests of the higher-rainfall areas are harvested for sawlogs. Plantations of radiata pine have been established in the Bright, Myrtleford and Buffalo River areas and on the Stanley plateau. Agriculture is concentrated mainly in the northern valleys, where grazing of beef and dairy cattle and fat-lamb production generally predominate. The uplands around Whitlands and Mahaakah also support grazing. The terraces and gentle slopes of the main valleys around Myrtleford and Whitfield are major tobacco-growing areas and hops is another important crop at Eurobin and in the sheltered valleys to the south of Myrree.

The high country includes Mount Buffalo and Mount Hotham, both popular for winter snow sports, and much of the area — particularly the Great Dividing Range in the south — offers major attractions for hiking and fishing. The latter activity includes the streams throughout the area and storages at Lake Buffalo, Lake William Hovell and, to a lesser extent, Lake Catani on Mount Buffalo.

Most of the study area has a high value for water production, although the high country produces the greatest volume of stream flow per unit area. This water is used extensively for irrigation, notably of tobacco and hops, and serves the domestic requirements of towns such as Bright, Porepunkah, Myrtleford and Moyhu and the City of Wangaratta to the north. The water storages referred to above help to reduce the seasonal variability of supply.

The study area has been mapped into 24 land systems. Each of these is illustrated by a block diagram, and the land components and their characteristics are presented in tabular form.

Problems of land deterioration are examined through consideration of the impact that the various land uses have on the different land types in the area. Deterioration is mainly localised and there are no major problem areas.