## 6. LAND USE

The Hume and Hovell expedition of 1824 became the first group of white men to enter the Ovens valley. They crossed the Ovens River, named after the engineer John Ovens, near the junction of the Ovens and King Rivers. Major (Sir) Thomas Mitchell was the next European to cross the Ovens, in 1836 on his return journey from south-western Victoria.

Pastoral development in the area commenced in 1837 with the arrival of George Faithfull, who settled in the lower Ovens valley. Original settlers in the upper Ovens were William Bowman, Dr George E. McKay, John W. Chisholm, William Furlonge, James Templeton, the Faithfull brothers and William Walker.

The discovery of gold at May Day Hills (in the Beechworth area) in 1852 created an up-surge of population that was to the advantage of the settlers, who there found a ready market for their produce. During this early period, roads and tracks were established and much of the native timber in settled areas was cut for fuel, mining timber or housing.

Extensive pine plantations are a feature of the hills around Bright and Myrtleford. Power lines from the Kiewa hydro-electric generating system traverse the area. Pastures, carrying mainly cattle, contribute to agricultural production, together with various crops such as hops and tobacco.

Gold-seekers dredged the Ovens River flats from Porepunkah to Harrietville, and thoroughly worked the Buckland valley. They also carried out extensive reef-mining around Harrietville and Myrtleford.

With the establishment of the pastoral industry came other agricultural crops. Cereal crops have been grown in the north of the valley (beyond the study area) since the squatting days, and tobacco and hops are reported to have been grown in the valley since the 1860s.

Plantations of exotic timber-producing species — predominantly radiata pine *(Pinus radiata),* but including Douglas fir and other species to a lesser extent — were established in the Bright area from 1916 and on the nearby Stanley plateau. These plantations are still being extended.

Much of the land now cleared for agricultural purposes was settled in the later part of the 19th Century. The area is also a valuable water supply catchment and has many recreational attractions. For a more detailed coverage of the history of the area see Angus and Forster (1970).

**Table 9 — Comparisons of water yield from the study area and adjacent catchments**

| Catchment | Area ($km^2$) | Mean annual discharge (ML) | Mean discharge per unit area (ML per $km^2$) |
|---|---|---|---|
| Kiewa* (Mongans Bridge) | 552 | 489 000 | 885.8 |
| King (Whitfield) | 591 | 327 000 | 553.3 |
| Buffalo (Smiths Suspension Bridge) | 1270 | 508 000 | 400.0 |
| Delatite* (Tonga Bridge) | 368 | 137 000 | 371.7 |
| Ovens (Bright) | 495 | 233 000 | 470.l |
| Buckland (Lower Buckland) | 303 | 150 000 | 494.9 |
| Broken* (Lima South) | 471 | 93 700 | 198.9 |

*Adjacent catchments
*Source:* Australian Water Resources Council (1974)

### *Water supply*

Although it is *not possible to give an* average *value* for the water yield from the actual area under study, average yields from the Ovens, King, Buffalo and Buckland Rivers at points within the study area are presented in Table 9. These total to an average annual discharge of 1 218 000 ML, of which the Buffalo River contributes about 40%.

Average discharge per unit area, given in Table 9, provides an interesting comparison with adjacent catchments. The area in each case represents the mountainous upper tract of the catchment and does not include the lower-rainfall, lower valley tracts. On this basis, each of the streams in the study area has a similar value, which is generally less than half of the value for the Kiewa River but more than twice that for the Broken River.

Water from these catchments supplies irrigation for high-value summer crops such as tobacco and hops and for irrigated pasture, as well as stock, and rural domestic needs. About 10% of the flow of the Buffalo River and 6% of that of the King River is used for irrigation (Land Conservation Council 1974). Also, a number of population centres depend on water from these catchments for domestic and industrial supplies. These include Wangaratta, Myrtleford, Bright, Porepunkah, Moyhu, Whitfield and Glenrowan.

Lake Buffalo on the Buffalo River (storage capacity 24 100 ML) and Lake William Hovell on the King River (storage capacity 12 300 ML) have been constructed to help maintain summer flows for these purposes. In drought times, streams without a storage may cease to flow, as did the King River in *1967, before the storage was* built. Water has been pumped from a deep dredge hole at Harrietville to maintain a flow in the upper Ovens in drought times, such as occurred in 1972-73.

On-farm storages that utilise run-off, and rely mainly on winter rains for filling, are a common form of water supply. These have mainly supplied stock water, but are increasingly being used for irrigation. They may be dams, in which an earthen wall is built across a stream or drainage line, or earthen tanks where a hole is excavated in less-steep country. Drag-line holes in the alluvium of the valley bottoms are used to tap the valley water table, mainly for irrigating summer crops. Wells are also used to gain access to local groundwater, mainly for domestic supplies.

### *Forestry*

Probably more than 80% of the study area comprises forested public land, which has been the subject of study by the Land Conservation Council (1974 and 1977a).

Government has accepted the Council recommendations that the area of Mount Buffalo National Park be increased to 26 800 ha and that more than 20 000 ha of the Wabonga plateau be reserved as a State park, with limited grazing and timber production to continue for a short period (Land Conservation Council 1977a, 1978). Also as a result of these recommendations, several small parcels of public land are to be reserved as reference areas, which will be protected from all use. Most of the remainder of the area of this study is designated as 'uncommitted' — to be managed to maintain its capability for possible future uses — with some areas set aside for pine plantations and hardwood production.

A further review of this area for pine plantations has now been made (Land Conservation Council 1981a).

Departments responsible for managing the forest estate have a policy of multiple-use management of State-controlled forests wherever possible.

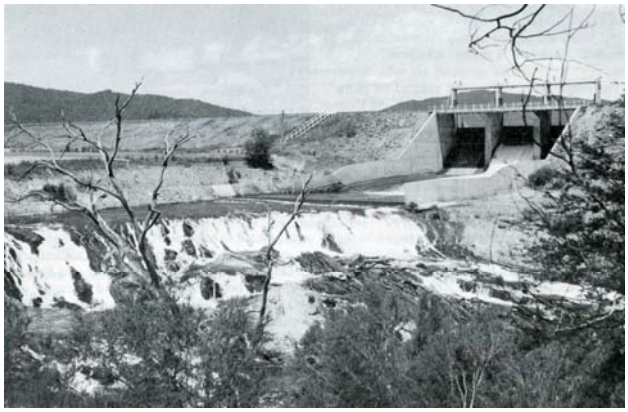
The nature of the forests in these areas varies from poor open forest of *Eucalyptus macrorhyncha* or *E. dives* to tall open forest of *E. delegatensis.* In some places — notably around Myrtleford, Porepunkah, Stanley and Bright — the native forest has been cleared and plantations of exotic softwoods, predominantly *Pinus radiata,* have been established. These plantations were commenced in 1916 at Bright and by 1980 occupied about 14 500 ha. Extensions to the area planted to pines over the next 10 years will be increased by800 ha annually to a rate of about 1450 ha a year (Land Conservation Council 1981a).

The upper King River area has been a major source of high-quality hardwood mill-logs for sawmills at Mirimbah and Mansfield. Other major logging areas included the Toombullup and Cobbler Plateaux, the upper Dandongadale River, the Black Range, Mount Selwyn, both branches of the upper Ovens River and the headwaters of Stony Creek and Snowy Creek, both to the north of Mount Feathertop. Most of these areas carry forests in which *E. delegatensis* predominates, although some of the better-quality forests of *E. radiata, E. rubida* and *E. viminalis* are also logged.

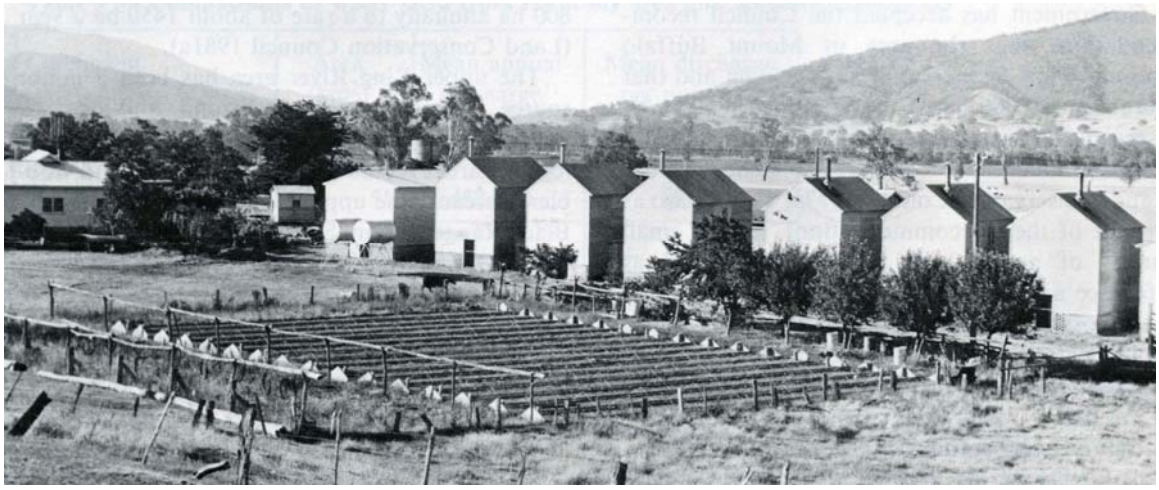
As well as providing timber, the forests provide vital watershed protection and wildlife habitat and have considerable attraction for recreation.

Recreational use of forests has been relatively low in the past, but increasing interest in these areas is resulting in greater demands being made upon them. The use of trail-bikes and private four-wheel-drive vehicles on minimum-standard access tracks has increased significantly in recent years. The development of improved facilities for hiking can be expected to result in an increase in that form of use, also: a long-established but poorly defined walking track along the Dividing Range has been improved and sign-posted and is now officially designated the 'Alpine Walking Track'.

Fire-protection activities constitute important land uses. To ensure that fire-fighting crews and equipment may be quickly moved to the scene of a fire, a comprehensive network of roads and tracks has been constructed and maintained throughout the more remote areas. Each year large areas of low-quality forest are subjected to low-intensity burning to reduce the quantity of forest litter, which reduces the intensity of a possible wildfire.



Lake Buffalo was the first storage in the Ovens River catchment



Tobacco kilns are a feature of northern valleys. This is a relatively labour-intensive industry.

### *Agriculture*

Although only a small proportion of the area is used for agriculture, the value of production is high.

Most of the cleared land is under pasture, much of it consisting of sown, introduced species. Although dairying is an important rural industry in this area, the numbers of beef cattle grazed would be about six times the dairy cattle numbers (Australian Bureau of Statistics, Victorian Office 1976). Sheep are grazed mainly for meat production, but this is not a major enterprise here.

The major crop, tobacco, is planted on more than 3000 ha in the valleys of the Ovens and King Rivers and their tributaries. In 1974/75 the Victorian tobacco crop, most of which is produced in this area, amounted to 6086 tonnes with an estimated gross value of $18.1 million. It is a labour-intensive crop and therefore requires a local population that is relatively large for a rural industry.

Hops — another high-value crop grown in the area — has as its main requirements well-drained soils, ample water and protection from wind. As with tobacco, this crop is grown on the stream terraces and requires irrigation during its summer growing season. Major hop gardens are at Eurobin and in the Fifteen Mile Creek valley. The area planted to hops in 1974/75 was just under 500 ha and yielded a crop valued at $l.7 million.

Hop vines require support and shelter from strong wind. Growers favour terraces in the narrow valleys such as the mid reaches of Middle and Fifteen Mile Creeks.

Other primary products from this area include walnuts, chestnuts, almonds and potatoes. A small area of apple orchards on the Stanley plateau is within the study area. Beans for processing have been grown in the Buffalo valley.