

LAND CONSERVATION COUNCIL

NORTH-EASTERN STUDY AREA DISTRICTS 3, 4 AND 5

FINAL RECOMMENDATIONS

April 1977

This text is a facsimile of the former Land Conservation Council's North-Eastern Study Area, Districts 3,4,5 Final Recommendations. It has been edited to incorporate Government decisions on the recommendations made by Order in Council dated 31 October 1978, 20 March 1979, and 1 May 1979 and subsequent formal amendments.

Added text is shown underlined; deleted text is shown ~~struck through~~.

Annotations [in brackets] explain the origin of changes.

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INTRODUCTION

The Land Conservation Council was established by the *Land Conservation Act 1970*. As one of its three functions, it makes recommendations to the Minister for Conservation with respect to the use of public land, in order to provide for the balanced use of land in Victoria. This report contains the Council's final recommendations concerning the public land in the North-Eastern study area, districts 3, 4 and 5. Notices showing the boundaries of the study districts and advising that an investigation was to be carried out were published in the Victorian *Government Gazette* of March 28 1973, and in local and Victorian newspapers in March and April 1973. A descriptive report was published on February 5 1975. The Council received 241 submissions on the future use of public land. Individuals, associations, companies, and local and State government bodies, representing a wide cross-section of the community, made helpful submissions covering most feasible forms of land use for the districts. Extracts from the *Land Conservation Act* covering the procedure to be followed in formulating recommendations were included in the descriptive report.

After considering these submissions, and having visited the area, the Council formulated its proposed recommendations, which were published on January 7 1976. The Council subsequently received 136 submissions commenting on the proposed recommendations. After due consideration, the Council now presents its final recommendations.

Layout

This volume contains written recommendations and maps. The recommendations are grouped under major use headings, such as Parks, Hardwood Production, and so on. Map 1, [Note: not in this version] at a scale of 1: 250 000, covers the whole study area and gives a broad view of recommended land uses. Maps 2, 3 and 4, [Note: not in this version] which cover parts of the study area at the scale 1: 100 000, show some of the areas concerned (particularly those for softwood production) in greater detail. Maps 5 to 14 are detailed plans of particular sites that could not adequately be defined on the other maps or in the text. The Land Conservation Council holds maps showing all the areas subject to recommendations in greater detail.

Land Uses

Table 1 summarises the proposed recommendations in terms of the major forms of use. It is important to realise that each primary use has a number of compatible secondary uses. In addition to nominating the best uses for the land, the recommendations indicate what is considered to be the most appropriate form of tenure for the land and the most appropriate management authority.

The Council recommends the enlargement of the Mount Buffalo National Park and the establishment of several other parks. The creation of reference areas and education areas covering the range of land types found in the study area is also recommended. Production of timber, especially softwoods, is provided for in several major areas. The Council has also considered the outstanding landscape values of the north-east and has recommended several substantial scenic reserves.

Table 1: MAJOR RECOMMENDED PUBLIC LAND USE

Major recommended land use	Area (ha)	Percentage of all land in the study districts	Percentage of the public land
National Park	26 800	3	6

State Park	18 600	2	4
Multi-purpose Park	13 100	2	3
Regional Parks	8 600	1	2
Reference Areas	4 850	< 1	1
Hardwood Production	12 650	2	3
Softwood Production	21 900(net)	3	5
Forest Area	27 900	3	6
Bushland Reserves	1 200	< 1	< 1
Education Areas	1 730	< 1	< 1
Scenic Reserves	4 300	< 1	1
Uncommitted	258 000	30	61

Note: All other land uses collectively make up the balance. Figures are rounded.
[Note: areas have not been adjusted for subsequent changes]

Where competing uses vie for a given area of land, it is not possible to satisfy them all. However, these recommendations attempt to achieve balance in providing for the present needs of most forms of use while retaining flexibility and the opportunity to adjust to future changes in such demands. They do so by placing as much of the public land as possible under forms of use that do not have a major impact on the natural ecosystem, and by placing areas into the 'uncommitted land' category.

Flexibility in planning is essential. Our knowledge of many resources (for example minerals) and of the distribution and ecology of plants and animals is very imperfect. There must be many places in Victoria where special values remain unrecognised and for which no special provision can be made in present planning. Furthermore, future demands for resources on public land may require alteration or modification of these recommendations, which are based on the best information presently available. The Council is aware that review will be necessary to ensure that future land use is in the best long-term interests of the community.

General Recommendations

The following seven recommendations qualify those in the body of the text.

The Council wishes to stress the need for adequate management and protection of public land, as it has made its recommendations on the assumption that sufficient manpower and finance will be provided for the appropriate managing authority. Unless these resources are provided, the Council's recommendations cannot be effectively implemented. There is an urgent need to make additional field staff and finance available and the Council therefore recommends:

- I** That the authorities responsible for managing and protecting the public land be given the resources necessary for the task.

The Council previously proposed certain additional arrangements for protecting the public land from fire. These arrangements have now been incorporated into an amendment to the *Forests Act 1958*. The amendment creates the designation *protected public land*, which may include public land that is not *State forest* or *national park*. The Forests Commission is now required to protect all three of these from fire. In *national parks* and *protected public land*, the Commission's fire-prevention works are subject to the agreement of the managing authority or, if agreement is not reached, to determination by the Governor in Council. In *State forests*, which comprise *reserved forest* and *protected forest* as defined in the *Forests Act 1958*, the Forests Commission is also responsible for the control and management of the vegetation. The Council recommends:

- II** That, for fire-protection purposes, public land that is not State forest or national park be examined, and appropriate areas be declared *protected public land* under the *Forests Act 1958*.

The Council expects that, as a result of further study, many more areas with special values will be identified. These recommendations cannot provide for the conservation of these values and the Council therefore recommends:

- III** That, when significant new discoveries are made on land within their administration, government agencies enlist the best advice available on the importance of such features and on any measures that should be taken to conserve them. Advice from organisations other than government authorities and academic institutions should be sought whenever appropriate.

The Council also recognises that in some cases existing legislation will have to be amended in order to effectively implement the recommendations in this volume. The Council is aware that this may result in a delay, in some cases of several years, before some of its recommendations can be implemented.

It is concerned that, where implementation of the recommendations would involve a change of management authority, management efficiency could be reduced during the delay period. The Council believes that the government should direct Departments that their responsibilities for management must continue in all areas presently under their control until such time as the recommendations are implemented. The Council therefore recommends:

- IV** That the present legal status and management of public land in each case be retained until the recommended authorities have the capacity to manage each area.

The Council further recommends:

- V** That, as many of them have not been precisely surveyed, the boundaries of the areas referred to in the recommendations be subject to minor modification, road excisions, easements, and other adjustments that may be necessary.
- VI** That the recommendations in this publication do not change the status of roads passing through or abutting public land that are at present declared roads under the *Country Roads Act 1958*.
- VII** That, where areas of public land are not specifically referred to in these recommendations, present legal uses and tenure continue.

A. PARKS

Victoria contains substantial areas of public land that have been retained in a relatively natural state. The number of people using these areas for recreation is increasing and will probably continue to do so. Pressures for the use of public land in ways that would change its condition are also increasing. Council believes that it is essential to reserve, now, viable samples of the various land and vegetation types together with the outstanding natural features that occur on public land. These areas can best be reserved in a system of parks.

A park is here defined as 'an area of land in a natural or semi-natural condition, reserved because of its scenery, floral and faunal content, historical interest, or other features, which is used by the public primarily for open-space recreation and education'.

This definition encompasses many different types of parks; they vary mainly in size and content and in the types and intensity of uses to which they are subjected. Definitions of different types of parks are needed to clarify the main purpose for which each one is created, and will help planners, managers, and users of parks.

It is necessary to establish the management aims that apply to areas or zones within parks. Among these, the conservation of native flora, fauna, and other natural features would be an essential part of national and State park management. This should include the identification and strict protection of significant ecological systems as well as the development and use of techniques to maintain or enhance special values associated with flora and fauna. Management policies for the conservation of wildlife values in parks should be developed jointly by the managing authority and the Fisheries and Wildlife Division. The location and management of areas zoned for intensive recreation will require special care to prevent damage to the environment.

This publication presents recommendations concerning parks in terms of the uses to which the land should be put. Parks have also been placed into categories, according to the scheme of classification suggested below.

The categories are not to be confused with the existing terminology of national park, forest park, etc., which mainly denotes tenure and the managing body rather than the types of purpose for which they are to be used. For instance, some of the present national parks are more akin in character to a State or regional park than to the national park of nationwide significance outlined in the classification.

Road-making materials

Road construction authorities may use deposits of road-making materials that occur in parks to construct and maintain roads in the parks, subject to the agreement of the managing authority, or other authority as set out in the Minerals and Stone Production chapter.

Youth camps

Some areas of public land recommended by the Council to become parks contain sites held under licence by schools, church groups, and scouts, and are used as youth camps.

The sites chosen for camps are usually in attractive environments near streams, with good access, and not exposed to high fire danger. Such sites are scarce, and their occupation by one organisation conflicts with their use by the general public for recreation. The camps may also

have a considerable impact on the site, due to the erection of buildings and the provision of car-parking areas.

The Council believes that while parks should cater for group camps and associated adventure and educational activities, the allocation of permanent sites to single groups in national, State, and regional parks should be phased out. It recognises, however, that on some sites a great deal of time and effort has been expended in erecting buildings and other improvements, and that phasing out these camps may not be practicable. As an alternative, such camps should be more fully utilised throughout the year, as suggested in the chapter on Recreation, rather than their use being confined to particular groups.

The Council believes that in future the demand for youth camps should be met by the organisations involved which should purchase or lease private land nearby for the actual camp site and erection of buildings, and use the land in the park for adventure and other activities that do not conflict with park management.

PARK CATEGORIES

National park

An extensive area of public land, of nation-wide significance because of its outstanding natural features and diverse land types, set aside primarily to provide public enjoyment, education, and inspiration in natural environments.

The conservation of native flora, fauna, and other features would be an essential part of national park management. Interpretative services would be provided. Development of facilities would be confined to a very small portion of the park. Activities would largely consist of sightseeing and the observation of flora, fauna, and other natural features. Wilderness zones, which are relatively undisturbed tracts of land used for solitude and wide-ranging forms of recreation, could be designated within a national park.

State park

An area of public land, containing one or more land types, set aside primarily to provide public enjoyment, education, and inspiration in natural environments.

State parks should include samples of each major land type not already represented in national parks, and as in national parks, the conservation of native flora and fauna would be an essential feature of management. Interpretative services would be provided. Development of facilities would be limited to a very small portion of the park. Activities would largely consist of sightseeing and the observation of flora, fauna, and other natural features. Regardless of which authority is the manager, the State parks recommended by the Council are intended to complement the national parks so that together they form a Statewide system.

Multi-purpose park

An area of public land set aside to provide recreation and education in natural surroundings, in which other activities such as water production, hardwood timber production, stone extraction, hunting, or grazing, are permitted where these form a part of, do not substantially conflict with, or supplement the primary object.

Victoria contains areas where, although recreation is an appropriate primary use of land, it is not desirable, economically possible, or necessary to wholly exclude other uses that would be unacceptable in national or State parks.

Regional park

An area of public land, readily accessible from urban centres or a major tourist route, set aside primarily to provide recreation for large numbers of people in natural or semi-natural surroundings.

These parks would be intensively developed for informal recreation and could include road systems. Although natural beauty would enhance their value, closeness to an urban centre is more important than natural attributes. Other uses - such as timber harvesting, fossicking and stone extraction - may be permitted where they are compatible with the primary use.

Recommendations

National park

A1 Mount Buffalo National Park

That the area of 26 800 ha shown on the maps be used to:

- (a) provide opportunities for recreation and education associated with the enjoyment and understanding of natural environments
 - (b) conserve and protect the natural ecosystems
 - (c) supply water and protect catchments
- and that
- (d) existing grazing licences be cancelled (see Note)
 - (e) no further ski lifts or tows be developed in new localities on the plateau; further facilities for skiing may be developed adjacent to areas currently used for this purpose

and that it be reserved under [section 4 of the *Crown Land (Reserves) 1978*], pending reservation under the *National Parks Act 1975*, and managed by the National Parks Service.

This park is a large area of national significance, as it has outstanding scenic, recreation, and nature conservation values and contains samples of several land types. It includes a dissected plateau and most of its surrounding foothills, which together form an outstanding feature of the topography of the north-east. The park has high botanical significance and exceptional opportunities for bushwalking and winter sports. It supports a complex of sub-alpine and dry heath vegetation and a range of open forest types in which snow gum, alpine ash, narrow-leaf peppermint, broad-leaf peppermint, and their associated species predominate.

The locality has a long history of conservation and recreation.

The lower foothill areas of the park, especially those in the Nug Nug—Nine Mile Spur area, are of great significance in the protection of the park itself, the adjoining farmland, and the nearby softwood plantations from wildfires.

Council realises that fire-prevention works such as fire access tracks and fuel-reduction burning are essential in such strategically important areas.

Note: The managing authority should provide for continued access to water for cattle grazed by the current licensee of Lands Department grazing block, Delatite 26.

(See also Wilderness SI B15)

State park

A2 Wabonga Plateau State Park

That the area of 18 600 ha shown on the maps be used to:

- (a) provide opportunities for recreation and education associated with the enjoyment and understanding of natural environments
 - (b) conserve and protect the natural ecosystems
 - (c) supply water and protect catchments
- and that
- (d) emphasis be placed on conserving the park's rich flora
 - (e) grazing continue at a level that is compatible with (d) above but be phased out within a period of ten years after the park is approved by Order in Council
 - (f) low-intensity timber production continue within the zone indicated on the map, for a period of ten years after the park is approved by Order in Council
 - (g) the experimental areas of pine trees be eventually removed

and that it be permanently reserved under [section 4 of the *Crown Land (Reserves)1978*], and managed by the National Parks Service.

The main features of this park are the sloping plateau of Carboniferous sedimentary rocks, with cliffs, waterfalls, and the steep razor-back ridge in the east. The extensive areas of rock outcrops and their folding are of particular geological interest. The park supports a rich flora, in which open forest II and III of broad-leaf and narrow-leaf peppermint and their associated species predominate; small areas of messmate and alpine ash forest occur in the east and south of the park.

Notes: The Council realises that timber production and grazing are not appropriate in a State park, but recommends a relatively long period for phasing them out in order to minimise disruption to local industries. It suggests that the Forests Commission arrange for the redistribution of resources among current licensees following the implementation of these recommendations.

Timber production operations should be carried out by the Forests Commission in consultation with the National Parks Service.

Council recognises that the boundary of this study area is arbitrary and will consider extending the Wabonga State Park when making recommendations for the adjoining Alpine study area (shaded in red on Map 1).

Multi-purpose park

A3 Mount Pilot Multi-purpose Park

That the area of 13 100 ha shown on the maps be used to:

- (a) provide opportunities for recreation and education associated with the enjoyment and understanding of natural environments
- (b) conserve and protect the natural ecosystems
- (c) supply water and protect catchments

with the primary aim of rehabilitation of the area and eventual reservation as a State park

and that

- (d) emphasis be given to preventing soil erosion, eradicating noxious weeds, and protecting natural vegetation and wildlife
- (e) honey production be permitted in the park
- (f) the United Shire of Beechworth granitic sand-pit west of the Chiltern—Beechworth road be permitted to remain in operation, under the control of the management authority
- (g) the extraction of sand and gravel from several separate operations in Reedy Creek be phased out and operations concentrated on the Eldorado dredge tailings (see Recommendation P2)
- (h) low-intensity hardwood production and grazing continue at a level that is compatible with (d) above
- (i) fossicking be permitted, but only under strict control in specified zones and using methods approved by the managing authority
- (j) military training activities be permitted, provided:
 - (i) the activities be restricted to small groups and exclude the use of heavy vehicles
 - (ii) other conditions as set out in section R are observed

and that it be permanently reserved under [section 4 of the *Crown Land (Reserves)1978*] and managed by the Forests Commission.

The park comprises most of the public land in the Pilot Range (including Mount Pilot) and some land south of Reedy Creek. The Range is a dissected granitic plateau with steep cliffs to the north and the relatively deep Reedy Creek Valley in the South. It supports open forest I and II and woodland I of long-leaf box, broad-leaf peppermint, Blakely's red gum, and black cypress pine.

The portion of the Pilot Range east of the Chiltern—Beechworth road has high conservation and recreational values, and especially high scenic values. The area supports an interesting fauna, including significant species such as the peregrine falcon and the turquoise parrot.

The Reedy Creek—Eldorado area has high scenic and recreation values and important historical associations, but high soil erosion hazard reduces its capability to support intensive recreation.

Note: In its Proposed Recommendations, Council originally proposed this area as a State park. It now considers that management problems remain to be solved before the area will warrant State park status. There are widespread infestations of noxious weeds, such as St. Johns wort and prickly pear, as well as erosion along Reedy Creek and siltation of farmland downstream resulting from uncontrolled fossicking and gravel extraction. The Council therefore recommends that the area be set aside as a multipurpose park with the primary aim of rehabilitation and eventual reservation as a State park. A series of current uses - such as timber production, honey production, military training, granitic sand extraction, and gem stone fossicking - if properly managed, could continue for the present (at a low intensity) without seriously compromising this eventual reservation. A zoning plan has been prepared to indicate areas in the multi-purpose park where certain uses should be prohibited (see Map 5).

Regional parks

A4 Chiltern Regional Park

That the area of 4000 ha shown on the maps be used to:

- (a) provide opportunities for informal recreation for large numbers of people

- (b) protect and conserve the natural ecosystem to the extent that this is consistent with (a) above

and that

- (c) management plans be prepared, with the agreement of the Fisheries and Wildlife Division, for conserving the rich mammal and bird fauna and in particular protecting the turquoise parrot, peregrine falcon, tuan, and squirrel glider
- (d) honey production be permitted
- (e) production of poles, sleepers, fencing material, and other minor forest produce be permitted in the section north of the Hume Highway where this does not conflict with (a) and (b) above
- (f) stone production continue from the quarry currently operating at Skeleton Hill, but that the lease area not be extended

and that it be permanently reserved under [section 4 of the *Crown Land (Reserves)1978*] and managed by the National Parks Service.

Notes:

The area should be zoned and carefully managed with emphasis on conservation. The forest area to the north of Chiltern is readily accessible from Wodonga and Wangaratta. It supports open forest of red ironbark and grey box. Features include the avifauna and wildflower displays, and sites of historic interest such as the Magenta Mine, State battery, and Pioneer Cemetery.

The area south of the Hume Highway has the higher conservation value, as it contains a greater diversity of vegetation types, soil types, and animal habitats. Management of this area should aim at restoring the original structure of the box-ironbark forest type in order to enhance the wildlife conservation value. It is possible that quantities of forest produce will become available as this restoration is effected.

Timber-production operations should be carried out by the Forests Commission with the agreement of the National Parks Service.

Detailed descriptions of areas other than the main blocks shown on the map are:

- (a) 4 ha south of allotment 7 of section 3A, Parish of Chiltern
- (b) 4 ha adjoining allotment 3A of section A1, Parish of Chiltern
- (c) land between allotments 21 and 23A of section 18, Parish of Chiltern
- (d) 36 ha adjoining allotment 12 of section C, Parish of Chiltern West (the mine tailings dump should continue to be available for gravel until exhausted; the management authority should provide for continued access to water for stock grazed by the adjoining landholder)
- (e) 13 ha east of allotments 9 and 10 of section A1, Parish of Chiltern
- (f) 11 ha between allotments 4 and 5 of section A2, Parish of Chiltern.

Note:

Areas are approximate.

A5 Baranduda Range Regional Park

That the area of 3100 ha shown on the maps be used to:

- (a) provide opportunities for recreation for large numbers of people
- (b) protect and conserve the natural ecosystem to the extent that this is compatible with (a)

above

and that

- (c) low-intensity timber harvesting continue at a level that does not conflict with (a) and (b) above

and that it be permanently reserved under [section 4 of the *Crown Land (Reserves) 1978*] and managed by the Forests Commission.

The park occupies a long ridge with commanding views of the Murray, the Indigo, and the Yackandandah Valleys. It is very close to parts of the Albury—Wodonga growth centre, and to Yackandandah.

The side slopes and the flat areas on top, all on gneissic rocks, support open forest I, II, and III of long-leaf box, broad-leaf peppermint, and narrow-leaf peppermint. The soil erosion hazard is moderate on the southern slopes, but high on the northern aspects.

A6 Beechworth Regional Park

That the area (1500 ha approximately) shown on the maps be used to:

- (a) provide opportunities for recreation for large numbers of people
 (b) conserve and protect the natural ecosystems to the extent that this is consistent with (a) above

and that it be permanently reserved under [section 4 of the *Crown Land (Reserves) 1978*] and managed by the National Parks Service.

The park is centred on Beechworth (an historic town and tourist centre), and incorporates some of the important features within the surrounding bushland such as the Power Magazine, the Gorge Drive, Ingrams Rock, Flat Rock, Telegraph Rock, the Cheese Rings, and Woolshed Falls. It also contains 170 ha of attractive bushland near Lake Kerferd, which has an open forest of narrow-leaf peppermint growing on a red-brown gradational soil of Ordovician sedimentary origin. This area thus has a stable soil type and - together with the relatively flat water frontages along Silver Creek, Deep Creek, One Mile Creek, and Two Mile Creek - can provide recreation opportunities for large numbers of people, without the soil erosion hazards that pose a problem on the steeper granitic areas.

Detailed descriptions of areas are:

- (a) public land east of allotments 4A, 13A and 14 of section 23, Parish of Beechworth
 (b) all water frontages and other vacant Crown land along sections of the following creeks in the Parish of Beechworth:

Hurdle Creek	from Lake Kerferd Water Reserve to Lake Sambell Public Purposes Reserve
Deep Creek	from allotment 35 of section P2 to Hurdle Creek
Silver Creek	from allotment 35 of section P2 to Hurdle Creek
Two Mile Creek	from allotment 18 of section B2 and 9 of section B to Three Mile Creek
Three Mile Creek	from allotment 14 of section A6 to Two Mile Creek
Six Mile Creek	from allotment 15 of section D3 to Three Mile Creek
Spring Creek	from allotment 7A of section V to Woolshed Falls Reserve
Graveyard Creek	from allotment 14 of section N1 to Spring Creek
Sheep Station Creek	from allotment 19 of section A1 to Woolshed Falls Reserve
Snake Head Creek	from the Chiltern—Beechworth Road to Woolshed Falls Reserve (Parish of Woorragee)

- (c) allotments 23, 23A and 24 of section A6, Parish of Beechworth

- (d) allotment 30B of section U, township of Beechworth
- (e) Ingrams Rock Reserve between allotment 1 of section M and allotment 11 of section J, Parish of Beechworth
- (f) public park reserve, section X, Parish of Beechworth, extending into the township to the Beechworth—Wangaratta road, including the Powder Magazine and the Gorge Drive
- (g) land between allotments 3 and 3A of section 12A and allotment 9A of section V, Parish of Beechworth
- (h) land between allotments 7C and 7D of section V, Parish of Beechworth
- (i) section M and section N other than allotment 1 in each, Parish of Beechworth
- (j) allotments 1, 2, 18, 19, and 20 of section 29, township of Beechworth
- (k) 34 ha, being the Woolshed Falls Public Purposes and Protection of Natural Features reserve (Gaz. 1915/907), near junction of Reedy and Spring Creeks, Parish of Beechworth
- (l) 13 ha, being part of the Flat Rock Public Purposes Reserve (Gaz. 1940/1395), adjoining the east of allotment 19A of section A1, Parish of Beechworth
- (m) 26 ha, being an area including and surrounding the Feeleys Rock Public Purposes Reserve (Gaz. 1893/9085), in the south of the Penal Purposes Reserve to the west of the township, Parish of Beechworth
- (n) 1.2 ha, being the Telegraph Rock Public Purposes Reserve (Gaz. 1906/5472), south-west of the Social Welfare Purposes Reserve north of the township, section K, Parish of Beechworth
- (o) 4 ha, being vacant Crown land adjoining the Social Welfare Purposes Reserve north of township, section K, Parish of Beechworth
- (p) 64 ha, being allotments 4 and 10 of section H, Parish of Beechworth.

Notes:

Areas are approximate only. The park does not include the Lake Sambell Public Purposes Reserve or Wallace Park (see Recommendation M4).

B. REFERENCE AREAS

Reference areas are tracts of public land containing viable samples of one or more land types that are relatively undisturbed and that are reserved in perpetuity. Those concerned with studying land for particular comparative purposes may then refer to such areas, especially when attempting to solve problems arising from the use of land.

Reference areas would normally be typical examples of land types that have been extensively developed elsewhere for productive uses such as agriculture or softwood production. The course and effects of human alteration and utilisation of the land can be measured against these relatively stable natural areas. Most developed regions have few areas remaining that are suitable as reference areas.

In common with references and standards used in other fields, these areas must not be tampered with, and natural processes should be allowed to continue undisturbed. Reference areas should be sufficiently large to be viable and be surrounded by a buffer, the width of which would vary according to the activity occurring on the adjacent land. The role of the buffer is to protect the reference area from damaging or potentially damaging activities on surrounding land. It will also protect important values in the surrounding land from potentially damaging natural processes occurring on the reference area.

Access should be restricted and experimental manipulation should not be permitted. Reference areas will enable continued study of natural features and processes, for example fauna, flora, hydrology, and nutrition. These studies are important in increasing our knowledge of the ecological laws and processes on which Man's survival may ultimately depend.

The preservation of some species in the long term requires the setting aside of areas free from human interference (in the form of productive or recreational use of the land). These areas preserve a valuable pool of genetic material - Man often uses wild species to genetically strengthen inbred races of domestic plants and animals - and the future use of gene pools will probably expand far beyond this.

In recommending the creation of reference areas, the Council foresees the need for new legislation to specify their status. An advisory committee has been established to determine the broad policies for the management of reference areas and their buffers.

Note: The selection of the reference areas listed here is based on current knowledge of the land types in the study area, and additional areas may be needed as better information on ecology and land use problems become available.

Recommendations

B1—B6 That the areas listed below and shown on the map:

- (a) be used to maintain natural ecosystems as a reference to which those concerned with studying land for particular comparative purposes may be permitted to refer, especially when attempting to solve problems arising from the use of land
- (b) be surrounded by a buffer; that the authority currently managing the recommended buffer be responsible for the management of the enclosed reference area; and that the delineation of buffer zones be by joint agreement between the managing authority and the advisory committee.

B1 King (940 ha)

Upper Devonian rhyodacite, Carboniferous sedimentary rock, Tertiary volcanics; hilltop and slopes. Elevation 440–999 m. Approximate annual rainfall 1520 mm. Open forest III narrow-leaf peppermint, open forest II broad-leaf peppermint. Land systems: King, Wabonga, and Mahaikah.

To be reserved under [section 4 of the *Crown Land (Reserves) 1978*] and managed by the Department of Crown Lands and Survey.

B2 Drum Top (440 ha)

Upper Devonian rhyodacite; plateau and steep slopes. Elevation 600–820 m. Approximate annual rainfall 1520 mm. Open forest II broad-leaf peppermint, open forest III narrow-leaf peppermint. Land system: Drum Top.

To be reserved under [section 4 of the *Crown Land (Reserves) 1978*] and managed by the Department of Crown Lands and Survey.

Note:

The steep escarpment adjoining private property should be managed as a buffer area.

B3 Mount Pleasant (590 ha)

Ordovician sedimentary rocks, dissected; Carboniferous conglomerate; plateau and steep slopes; Upper Devonian rhyodacite dissected. Elevation 450–800 m. Approximate annual rainfall 900–1200 mm. Open forest III narrow-leaf peppermint; open forest II broad-leaf peppermint, long-leaf box. Land systems: Bowman, Tawonga—Wermatong, Wabonga, and Koonika.

To be managed by the National Parks Service.

B4 Mount Buffalo (1120 ha)

Upper Devonian granite; plateau and steep slope. Elevation 400–1480 m. Approximate annual rainfall 1100–1500 mm. Open forest IV alpine ash (mature and regrowth), open forest I and II snow gum and candlebark, open forest II broad-leaf peppermint, open forest III narrow-leaf peppermint. Land system: Buffalo.

To be managed by the National Parks Service.

(See also Wilderness SI B15)

B5 Pilot Range (1130 ha)

Devonian granite; plateau and slopes. Elevation 300–500 m. Approximate annual rainfall 750–800 mm. Open forest I and II long-leaf box, open forest II broad-leaf peppermint, open forest I black cypress pine. Land system: Barambogie.

To be managed by the Forests Commission.

Note:

The Council is aware that the ‘danger zone’ surrounding a proposed military small-arms range in the Indigo Valley would include the escarpment on the north-western boundary of this reference area. This ‘danger zone’, together with these margins of the reference area that adjoin private property, should be managed as a buffer area.

B6 Mitta Mitta (630 ha)

Ordovician sediments, hillwash, and colluvium; broad basin with moderately steep marginal

slopes. Elevation 300–600 m. Approximate annual rainfall 1000 mm. Open forest III narrow-leaf peppermint, and open forest II broad-leaf peppermint. Land systems: Tawonga, Baranduda, and Murray.

To be reserved under [section 4 of the *Crown Land (Reserves) 1978*] and managed by the Department of Crown Lands and Survey.

C. WILDLIFE

While some of Australia's animals have adapted to the changes in the environment brought by European Man, the populations of many have seriously declined, and a few have become extinct.

The conservation of fauna depends on conservation of habitat, and in Victoria the public lands contain large areas of diverse natural habitats.

In the case of the North-Eastern study area, districts 3, 4 and 5, the Council does not feel that any area should be set aside specifically as a wildlife reserve. However, Council seeks to ensure that the wildlife values of public land recommended for various other uses are recognised.

The Council therefore believes that, in areas with particular wildlife values, the management authorities of public land should note the need for both research into and application of wildlife management techniques, and should actively collaborate with the Fisheries and Wildlife Division regarding these aspects of wildlife conservation.

It is recognised that this may involve the manipulation of habitats in certain areas, such as the Pilot, Wabonga, and Chiltern Parks and streamside reserves in the vicinity of Barnawartha North.

D. WATER PRODUCTION

The study districts include the lower reaches of the catchments of Lake William Hovell and Lake Buffalo (both of which regulate river levels for users downstream) and part of the lower reaches of the catchment of Lake Hume (the major storage in the Murray irrigation scheme). Nine towns obtain water supplies from catchments entirely within the area, while the cities of Wangaratta and Wodonga and the towns of Tallangatta and Bright obtain water supplies from main rivers flowing through it.

Current management

None of the catchments in the area are used solely for water production. Most of the public land areas within them support hardwood or softwood timber-harvesting, recreation, and other forest uses, while normal agricultural pursuits are followed on most freehold areas.

Cities and towns obtaining water directly from the main rivers have treated supplies, while others, with the exception of Beechworth, have untreated supplies.

Land-use planning

One catchment (that of Lake Hume) in the study districts has been proclaimed under section 22 (1) of the *Soil Conservation and Land Utilisation Act 1958*. No land use determination has yet been made for this area. The use of all land within proclaimed catchments is subject to specification by notice issued by the Soil Conservation Authority or by determination made by the Authority after consultation with the Land Conservation Council.

The Council maintains that all domestic water supply catchments within the study districts should be investigated by the Soil Conservation Authority and, where appropriate, recommended for proclamation by the Land Conservation Council, in order to ensure a uniform procedure for land use planning within these areas.

Multiple use

Recognising that the prime water-producing areas of the State coincide with the principal mountain and forested areas, and that inland water bodies are a major attraction for recreation - the Council believes that wherever possible there should be multiple use of catchments. Where recreational use of storages is permitted it must be carefully controlled to ensure adequate protection of water quality, and responsibility for this must remain with water supply authority.

The Council realises that the optimum combination of land uses for catchments must vary from one land type to another, depending on the manner in which the environmental variables of climate, parent material, topography, soils, and organisms are inter-related. The Council is aware that a particular use may not impair the quantity, frequency, or quality of water yield in one instance, but may have a profound effect in another.

Where a number of other products are required from a catchment supplying water used for domestic, industrial, or irrigation purposes, the catchment should be proclaimed under section 22 (1) of the *Soil Conservation and Land Utilisation Act 1958* and also under section 5 (1) (b) of the *Land Conservation Act 1970*.

Council believes that in most situations it is not necessary for a water supply authority to control and manage all land in its water catchment. Public authorities managing land within a proclaimed

catchment should, however, consult and cooperate with the water supply authority and the Soil Conservation Authority regarding location, timing, and type of management activities in the catchment. This is the current practice in most areas.

On the other hand, the water supply authority should control and manage the buffer strip (defined in the land use determination) around storages and diversion works in addition to the actual waterworks area. Although the primary object of management in the buffer must always be to protect water quality, there are situations where secondary uses (such as recreation and timber production) can be accommodated. In such circumstances, the principles of management must be agreed upon by the water supply authority and any other authorities concerned.

Water quality, yield, and regulation

The Council is aware that it is possible to improve the quality of water by treatment - at a cost. It must, however, be recognised that the higher the quality of raw water, the cheaper and more efficient the treatment is and, in most cases, the more acceptable the end product. It is also vital to safeguard the quantity and timing or yield. Catchments must be protected from soil erosion, soil compaction, and contamination from chemical or biological sources.

Within the study area, a highly simplified classification of water source areas can be defined, as follows:

- (a) sub-alpine, e.g. Buffalo Creek
- (b) mountain, e.g. Buckland River
- (c) wet foothill, e.g. Fifteen Mile Creek
- (d) dry foothill, e.g. Barambogie Creek

Management prescriptions for other land uses within these catchments must differ from one class to another. Activities that have little impact on the physical quality of water in one class of catchment may in another seriously impair water quality and must therefore be strictly controlled.

For example, the range and intensity of activities that could be permitted in (b) and (c) is considerably greater than that permissible in (a) and (d).

The implementation of proper management of land uses within catchments is extremely important, and recognition must be given to the greater-than-normal need for high levels of protection. Implementation of any recommendations for public land within catchments will require recognition that values such as water yield, quality, and flow regime are of prime concern. Council recognises the need for research to provide guidelines for such management.

Council considers that sterilisation of drinking water is ultimately inevitable, even with controlled land use in catchments.

Where multiple land use in catchments is increasing in intensity, water supply authorities should provide, at the earliest possible time, facilities for sterilisation of all drinking water in accordance with established standards. The Council notes that the Commission of Public Health and the Melbourne and Metropolitan Board of Works believe that the standards for water quality adopted by the World Health Organisation should be the long-term goals for domestic water supply systems.

Additional water needs

Future water needs for domestic purposes and for stock and irrigation may require the

construction of additional water storages. No specific areas can be reserved for this purpose until the need has been reasonably established and possible sites are investigated.

The Council notes the deliberations currently taking place on proposals for an additional water storage on the Buckland River near Buckland Junction and the high dam at Lake Buffalo.

Recommendations

D1—D16 That in the case of the locations listed below and shown on the maps (all these locations being within catchments for which no land-use determinations have been made) the present tenure and management of public land continue for the time being

and that

once a land-use determination has been made, the following areas:

- (i) storage areas
- (ii) diversion works
- (iii) associated facilities
- (iv) buffer strips around diversion works and storages as defined in the land-use determination
- (v) any other allotment as specified below be used for
 - (a) water supply purposes
 - (b) other activities permitted by the water supply authority after consultation with the Soil Conservation Authority and the Environment Protection Authority

and that these areas be permanently reserved under [section 4 of the *Crown Land (Reserves) 1978*] for water supply purposes, and be managed by the water supply authority named.

Note:

- (i) The buffer should be wide enough to prevent direct pollution, to filter overland flow of water, and to control access. Its width will vary to suit differences in ground slope, soil type, vegetative cover, adjoining land use, and type of facilities available for treating the water.
- (ii) The primary object of management of the buffer must be to protect water quality. Subject to this principle, the water supply authority may permit other secondary uses on the buffer. In such cases, the principles of management must be agreed upon by that authority and any other authorities concerned.
- (iii) In cases where the above recommendations cause the control and management of an area to pass to a land management authority from a water supply authority, which thus loses income, Council believes that the new management authority should pay adequate compensation or negotiate some other mutually acceptable arrangement.

- D1** Fifteen Mile Creek, Glenrowan Waterworks Trust
- D2** King River, Moyhu Waterworks Trust
- D3** Jessies Creek, Whitfield Waterworks Trust
- D4** Lake William Hovell, State Rivers and Water Supply Commission
- D5** Ovens River, Wangaratta Waterworks Trust
- D6** Buffalo Creek, Myrtleford Waterworks Trust
- D7** Lake Buffalo, State Rivers and Water Supply Commission
- D8** Bakers Creek, Bright Waterworks Trust

D9 Ovens River, Bright Waterworks Trust

D10 Diddah Diddah Creek, Springhurst Waterworks Trust

D11 Barambogie Creek, Chiltern Waterworks Trust

D12 Nine Mile Creek, Beechworth Waterworks Trust

D13 Wodonga Creek, Wodonga Waterworks Trust

~~D14~~ ~~Commissioners Creek, Yackandandah Waterworks Trust~~

(Not formally revoked by Council, but no longer required by Trust) [see p12 Catchment Proclamation Report (VEAC library) on Catchments Nine Mile Creek, Clear Creek and Hurdle Creek (Lake Kerford)]

Note:

Also new catchment:: Clear creek proclaimed for Yackandandah WWT)

D15 Nine Mile Creek, Yackandandah Waterworks Trust

D16 Lake Hume, State Rivers and Water Supply Commission

E. HARDWOOD PRODUCTION

Hardwood sawmilling directly employs about 300 men in the study districts, although 75 per cent of the timber milled comes from the mountain areas to the south. The main sawlog species harvested in the study districts is narrow-leaf peppermint, but others include alpine ash and messmate.

On the scale at which it has traditionally been practised, hardwood production is compatible with many other uses, such as conservation of flora and fauna and many types of outdoor recreation. It has also been a flexible use, allowing the possibility of later adaptation.

Constraints are, however, placed on timber production in order to protect floral, faunal, recreational, water catchment, and landscape values when intensive silvicultural techniques such as clear-felling are employed, and as the community becomes increasingly aware of other forest values. Logging is excluded from reference areas and from many parks; furthermore, within the hardwood production areas, management prescriptions normally apply restrictions in areas close to streams, on steep slopes, or of special landscape significance.

The net area available for timber production thus decreases, and it may therefore be necessary to increase the productivity of areas to be used for timber production, despite the fact that their capability for non-timber uses may well decline as a consequence.

The forests in these study districts have a generally lower capability for increased production than those in some other parts of the State. There are, however, areas with high potential productivity, which form a mosaic with forests of lower productivity depending upon aspect, elevation, rainfall, and soil type. The following proposals for intensive management do not apply to the less-productive forests, which are included in the broad hardwood production areas only for ease of management. Such areas should be managed for low-intensity timber production according to their productivity and subject to the constraints set out in these recommendations.

The Council believes that most of Victoria's timber requirements could be produced from intensively managed forests located in the areas of highest productivity. Intensive management is the accepted practice with softwood and other forms of primary production; in the case of hardwood it has the advantage of reducing the costs involved in roading, harvesting, regeneration, protection, and management. Although there would still be a general constraint to maintain the productivity of these areas, short rotations, changes in species or genetic strains, application of fertilisers, and extensive clearing would be appropriate in some instances.

Areas of relatively flat terrain with a high capability for hardwood timber production (such as the Upper Middle Creek area), where conflict with landscape, recreational, and catchment values could be minimal, would be suitable for intensive management.

There are also some areas of productive forest where conflict with these values could be significant. Constraints are therefore imposed and the Council has defined areas where particular non-timber values must be protected.

Council realises that the extension of this type of management to significant areas of forest can be achieved only in the long term, and thus the existing forests - which have generally resulted from past logging and fires and whose productivity is below their potential - must continue to be used to meet existing and foreseeable needs.

Recommendations

E1—E3 That the areas listed below and shown on the maps be used to

- (a) primarily produce hardwood timber in a manner having due regard for landscape values as seen from the main roads outside the forest that
- (b) major secondary uses be to:
 - (i) provide opportunities for open-space recreation and education
 - (ii) conserve native plants and animals, and provide opportunities for the development of wildlife conservation techniques
 - (iii) produce honey, forage, gravel, sand, and other forest produce as defined in the *Forests Act 1958*
- (c) water production values be recognised

and that the areas remain or become reserved forest under the provisions of the *Forests Act 1958*, and be managed by the Forests Commission.

E1 Upper Middle Creek (2500 ha approx.)

E2 Mount Big Ben (8600 ha approx.) The landscape value of the forested escarpment as viewed from the Yackandandah—Dederang road should be maintained.

E3 Mount Jack (1550 ha approx.)

F. SOFTWOOD PRODUCTION

The study districts contain the Ovens Plantation Development zone and part of the Benalla—Mansfield zone - two of eight zones in Victoria within which the Forests Commission plans to establish substantial areas of softwood plantation.

Industry and Plantation Requirements

Ovens zone

The plantation resource within the Ovens zone - centred around Myrtleford, Beechworth, and Bright - is 15 940 ha, including the area planted in 1976. The Forests Commission plans to establish plantations totalling 32 000 ha net. At present the planting rate of new areas is 650 ha per annum.

Plantations in this zone are designed to provide sustained supplies of raw material for an integrated industry embracing a refiner, roundwood pulp mill, sawlog and veneer mills, and preservative treatment plants.

Bowater Scott Australia Ltd., operating as Australian Forest Industries Pty. Ltd., have recently constructed an integrated pulp mill and sawmilling complex at Myrtleford. The pulpwood is obtained under an agreement ratified by legislation in 1971 to assure the supply commitment is 35 400 m³ of pulpwood per annum and this rises to 63 720 m³ per annum by 1991. Current sawlog allocations total 85 000 m³ per annum.

Sufficient area has been recommended for new softwood plantations to establish 4390 ha net in the period to 1985 (inclusive). This meets 75 per cent of the Commission's requirements on public land.

Benalla—Mansfield zone (and central zone)

The softwood plantings in the combined zones are planned to support a large integrated industry, including a pulp mill and sawmills. The establishment of a planned resource of 60 000 ha of softwood is still in the early stages, and no commitments to industry have been made. To date (December 1976), approximately 12 000 ha net have been planted, leaving a requirement for a further 48 000 ha net. The Forests Commission requested that sufficient land in the North-Eastern study area (district 2), be made available to meet its present planting rates at Warrenbayne and Wrightley from 1974 to 1983 inclusive. The final recommendations for that study district met this requirement in full, and delineated an area sufficient to establish 7400 ha net of plantation. This included some land purchased by the Forests Commission.

In its final recommendations for the Melbourne study area the Council allocated enough land in these zones to establish 3555 ha net to 1983. The combined areas in the central and Benalla—Mansfield zones enable the Forests Commission to achieve 74 per cent of its proposed plantings to 1983.

In its submission for the North-Eastern study area, districts 3, 4 and 5, the Commission has requested additional land to cover the period 1984 and 1985 for the Mansfield part of the planting programme, and sufficient areas (approximately 500 ha net) have been recommended.

Planning Period

Provision is made in these recommendations for land for planting softwoods in the area until 1985, thus allowing a planning period of ten years for the establishment of softwoods. Finance for softwood plantings, however, depends to some extent on the Commonwealth—State Softwood Forestry Agreement, which is currently under review. If substantial changes are made in the Agreement, it will be necessary to review these recommendations. The Council will consider making land available for softwood planting after 1985 in sufficient time to allow reasonable preparation for such plantings.

Land Purchased for Plantations

The Council believes that the balance of Forests Commission requirements within the ten-year planning period, not provided for in the recommendations (approximately 1625 ha), should be met by purchase of private property. The Commission has purchased 592 ha of freehold land in the Ovens zone since the Proposed Recommendations for the study area were published in January 1976. The area of land required to meet planning targets in full is thus approximately 1100 ha (allowing for unsuitable land within the gross area already purchased). Further funds should be made available for the purchase of suitable freehold land.

Non-government Plantations

The Council believes that private softwood plantings should be substantially based on private property. Public land may be made available to companies for softwood plantings where its use would serve to consolidate the project. Such land should remain in public ownership, with the rights to and conditions of its use covered by a lease.

Plantation Planning Guidelines

The Council believes that the impact large plantations of softwood have on the natural environment can be lessened by retaining selected areas of native vegetation, and by adhering to catchment prescriptions laid down by the relevant management authorities, where applicable. The guidelines set out below apply to the establishment of plantations on public land in this study area.

No continuous plantation unit should exceed 1400 ha without obvious break-up areas retained as native forest. Large samples (100–200 ha) of all vegetation types in the area should be retained. Where possible, several types should be combined in one unit. The unit may be sited to improve the appearance of the plantation, or to combine with land unsuitable for planting to form a range of habitats for wildlife. Units may also include stands of native hardwood managed for timber production. While logging and fuel-reduction burning need not be prohibited in areas where native vegetation is retained, it is important to protect their recreational values. Any utilisation, including that carried out prior to clearing, should be carefully controlled, and slash, snig tracks, and landings cleaned up. No retained area should be fuel reduced in entirety in any one year.

Native vegetation should be retained for at least 40 m from each bank along minor streams and 80 m from each bank along major streams, and such areas should be kept free of exotic vegetation. This is in line with other Council recommendations that all wetlands on public land be conserved. These strips of retained native vegetation should be kept free of bulldozed material, and windrows should be swept back from them to protect them from hot burns. They should be linked to areas of native forest wherever possible, to allow movement of wildlife.

Landscape values of areas visible from main roads and major vantage points should be maintained or enhanced, with preference given to landscapes carrying native forests. The aim

should be to avoid as far as practicable views of continuous swaths of cleared country, during both the establishment phase and the final felling of the mature crop.

This may be achieved by:

- (i) retaining uncleared foreground reserves
- (ii) breaking up areas to be cleared with strategically located strips or blocks of vegetation
- (iii) retaining native forests as a backdrop on higher slopes and ridges.

On minor through roads, an interesting environment should be maintained by amenity plantings (preferably of native and local species). Where plantations are to be established adjacent to private property, considerations should be given to reasonable requests by the landholders for the retention of native vegetation along boundaries.

Clearing prior to planting makes the soil more liable to erosion until a new vegetation cover forms. Special care must be taken to ensure that soil erosion does not begin or increase during this period, and that water catchment values are not impaired. Clearing is to be confined to areas with a ground slope generally less than 20 degrees.

The above guidelines have been adapted from those prepared and used by the Forests Commission. Obviously planning plantations in this way increases their gross area. Allowances for this have been made in calculating the areas allocated to softwoods.

Recommendations

F1 That the present plantations of 17 000 ha net as shown on the map continue to be used for the production of softwood products and the provisions of other goods and services compatible with the primary use, as well as providing opportunities for education and recreation

and that, except for school plantations, they be reserved forest under the provisions of the *Forests Act 1958*, and managed by the Forests Commission. (School Plantations, see Chapter L.)

F2—F22 (except F18) That the areas indicated on the map and listed below be used for softwood production accordance with the above Plantation Guidelines

and that they be reserved forest under the provisions of the *Forests Act 1958*, and managed by the Forests Commission.

Ovens plantation zone

F2 Yackandandah Creek - 185 ha, within which an area of 170 ha net may be planted to softwoods.

F3 Wombat Gully - 90 ha, within which an area of 80 ha net may be planted to softwoods.

F4 Hillsborough - 70 ha, within which an area of 40 ha net may be planted to softwoods. Historic and scenic values associated with the Hillsborough township should be conserved.

F5 Mount Stanley Road - 190 ha, within which an area of 125 ha net may be planted to softwoods.

F6 Circular Creek - 80 ha, within which an area of 60 ha net may be planted to softwoods.

F7 Bruarong - 240 ha, within which an area of 160 ha net may be planted to softwoods. Historic and scenic values associated with the old township site of Bruarong should be conserved.

- F8** Dingle Range - 420 ha, within which an area of 360 ha net may be planted to softwoods.
- F9** Basin Creek - 440 ha, within which an area of 340 ha net may be planted to softwoods.
- F10** Granite Creek - 130 ha, within which an area of 80 ha net may be planted to softwoods.
- F11** Running Creek - 490 ha, within which an area of 405 ha net may be planted to softwoods.
- F12** Smarts Creek - 190 ha, within which an area of 110 ha net may be planted to softwoods.
- F13** Morgans Creek - 810 ha, within which an area of 785 ha net may be planted to softwoods.
- F14** Long Corner Creek - 120 ha, within which an area of 110 ha net may be planted to softwoods.
- F15** Bread and Butter Creek—Croppers Creek - 460 ha, within which an area of 425 ha net may be planted to softwoods.
- F16** Bread and Butter Creek—Croppers Creek - 660 ha, within which an area of 550 ha net may be planted to softwoods.
- F17** Emu Creek - 180 ha, within which an area of 160 ha net may be planted to softwoods.
- F18** Croppers Creek (hydrology experiment)

Within the area of 125 ha indicated on the map, the required area be planted to softwoods to investigate the effect of softwood establishment on stream flow. This area comprises three experimental catchments, where data collection has been in progress for several years in preparation for the experiment.

Council recommends that this area be temporarily reserved for hydrological research under [section 4 of the *Crown Land (Reserves) 1978*], and that it be managed by the Forests Commission.

- F19** Croppers Creek - 380 ha gross, within which an area of 330 ha net may be planted to softwoods.

F20—F21 Carboor

Within the area of 592 ha gross, the suitable areas may be planted to softwoods (formerly freehold farmland but including the 0.8 ha State school reserve and surrounding road reserve adjoining allotment 4B of section 8, Parish of Bungamero).

Benalla—Mansfield plantation zone

- F22** Toombullup - 800 ha, within which an area of 500 ha net may be planted to softwoods.

G. FOREST AREA

When making recommendations on land for softwood plantations, the Council has recognised that their establishment constitutes a major change from any natural ecosystems they replace. Further, it realises that softwood production is a long-term endeavour and that restoring the plantation areas to a natural condition is difficult. Adjacent areas of public land that have high nature conservation and/or landscape values thus play an important role in maintaining a local balance in land use. Because of their locations, these areas are also important for protecting the softwood resource from fire, and therefore must also be managed for this purpose. Such land has been designated forest area.

Recommendations

G1 That the area of 27 900 ha shown on the maps be used for:

- (a) conservation of fauna and flora, and preservation of scenic values
- (b) protection of the adjacent area recommended for softwood production
- (c) low-intensity hardwood production, recreation, education, forest grazing, honey production, and mining, where these activities do not conflict with (a) above
- (d) water supply and catchment protection, where these lie within water supply catchments that
- (e) the landscape values associated with the natural vegetation of the Happy Valley—Ovens divide north of Eurobin, the Dingle Ridge east of Beechworth, and the Murmungee Basin, be protected
- (f) the historic and recreational values of the Wallaby Mine area be protected

and that the areas be reserved forest under the provisions of the *Forests Act 1958*, and managed by the Forests Commission.

(Order in Council 20/3/1979)

H. BUSHLAND RESERVES

Throughout the predominantly agricultural regions of the study area, a number of relatively small areas of public land carry remnants of native vegetation. This vegetation, particularly the ground flora, has often been modified from the original by grazing and invasion of weeds. The native tree species still remain, however, and these areas provide landscape diversity, particularly where more-intensive agriculture is resulting in a gradual reduction in the numbers of trees on freehold land.

The Council recommends that many of these small remnants of the native vegetation should become bushland reserves. The major use is to maintain the distinctive Australian character of the countryside, and to provide diversity in the landscape. They may also provide some opportunities for passive recreation in relatively natural surroundings. The areas are generally too small to be significant for fauna conservation, although some may be important for migratory birds.

Management should aim at the maintenance of the native flora, particularly the tree species. Low-intensity grazing, timber production, and gravel extraction are not necessarily incompatible with this primary aim, provided they are carefully planned and controlled and do not spoil the appearance of the reserves, particularly as viewed from roads, railway lines, and lookout points. These uses may not be appropriate to all reserves, however, and the management authority may have to exclude them from reserves, at least temporarily, in order to permit regeneration of tree species.

Recommendations

H1—H40 That the areas described below and shown on the maps be used to:

(a) maintain the local character and quality of the landscape
and

(b) provide opportunities for passive recreation such as picnicking and walking

and that they be permanently reserved under [section 4 of the *Crown Land (Reserves) 1978*]

and that except where otherwise indicated - they be managed by the Department of Crown Lands and Survey.

Expansion of any existing recreational facilities or new development should be permitted only where this does not conflict with the primary aim.

H1 36 ha adjoining allotment 12B of section 3, Parish of Whitfield, but not including the State school plantation. The management authority should permit the use of part of this reserve for a deviation of the Benalla—Whitfield road if this is eventually required.

H2 100 ha, being part of allotment 83A, Parish of Myrree.

H3 4.5 ha adjoining allotment 7, Parish of Myrree.

H4 25 ha, being the railway water supply reserve south of allotment 10 of section 13, Parish of Everton. The stripping of 'stone' from this section should cease, but a small quarry for crushed hornfels may be established to meet local shire requirements (subject to the guidelines set out in the Minerals and Stone chapter).

H5 10 ha adjoining allotment 20A, Parish of Tarrawingee.

H6 6 ha adjoining allotment 6A, Parish of Everton.

H7 1 ha adjoining allotment 21D1 of section A, Parish of Tarrawingee.

Not implemented on advice of Crown, Land & Survey (NRE)

- H8** 12 ha adjoining allotment 12 of section A, Parish of Tarrawingee.
- H9** 12 ha adjoining allotment 8C of section A, Parish of Tarrawingee.
- H10** 7 ha adjoining allotment 197A, Parish of Carraragarmungee.
- H11** 8 ha adjoining allotment 11 of section 2, Parish of Barambogie.
- H12** 72 ha, being the Crown land west of allotment 7, Parish of Barambogie.
- H13** 6 ha adjoining allotment 4 of section Z, Parish of Chiltern West.
- H14** 2 ha adjoining allotment 1B of section 39, Parish of Barnawartha North.
- H15** 4 ha west of allotment 7 of section 40, Parish of Barnawartha South.
- H16** 12 ha adjoining allotments 2 and 3 of section 41, Parish of Barnawartha South.
- H17** 60 ha adjoining allotment 5B1 of section 8, Parish of Barnawartha South.
- H18** 32 ha, being allotment 26 of section N2, Parish of Wooragee North.
- H19** 8 ha, being allotments 3A and 3B of section N1 and Crown land south of allotment 3B of section N1 Parish of Yackandandah.
- H20** 2 ha between allotments 10 and 11 of section A, Parish of Wooragee.
- H21** 23 ha, being 0.6 ha north-east of allotments 4 and 4A of section 13, 10 ha between allotment 2A of section 9 and allotment 8 of section 10, 8 ha between allotments 4 and 6 of section 10, 2 ha northeast of allotment 6 of section 10, and 2 ha adjoining the north of allotment 3 of section 4, Parish of Stanley - to be managed by the Forests Commission.
- ~~**H22** 3 ha adjoining allotment 17 of section 17, Parish of Stanley, and extending into the township of Stanley - to be managed by the Forests Commission.~~

Note:

Council recommended sale of block.

- H23** 0.6 ha, being the water reserve between allotments 12 and 16 of section D1, Parish of Stanley - to be managed by the Forests Commission.
- H24** 1 ha adjoining allotment 120 of section 12A, Parish of Stanley - to be managed by the Forests Commission.
- H25** 17 ha, being allotment 6 of section 12A, Parish of Stanley - to be managed by the Forests Commission.
- H26** 250 ha, being the land west of allotments 4, 6B, 9 and 10 of section 16, Parish of Mudgeegonga - to be managed by the Forests Commission.
- H27** 26 ha adjoining allotment 2 of section 1, Parish of Baranduda.
- H28** 14 ha adjoining allotment 10 of section 13, Parish of Beethang.
- H29** 7 ha adjoining allotment 1A2, of section 10, Parish of Beethang.
- H30** 140 ha, being allotment 131, Parish of Wagra. Grazing should not be permitted.
- H31** 21 ha adjoining allotment 5 of section 12A, Parish of Noorongong.
- H32** 16 ha adjoining allotments 5 and 4A of section 3A, Parish of Kergunyah.
- H33** 2 ha adjoining the south-east of allotment 4A of section 3A, Parish of Kergunyah.
- H34** 101 ha, being allotments 1, 20 and 53A of section E, Parish of Mitta Mitta.

Note:

An area reserved for Forests Act purposes and used for a residence (1.6 ha in the south-west of allotment 20 of Section E, Parish of Mitta Mitta) is not included in the bushland reserve mentioned above. It was the intention of Council that this use and the existing tenure should continue.

(see LCC letter to the Minister and plan, 6/2/1978)

H35 22 ha, being allotment 9 of section 11, Parish of Mullagong.

H36 41 ha between allotments 6 and 8 of section 18, Parish of Mullagong.

H37 12 ha adjoining allotment 10 of section 8, Parish of Mullindolingong, but not including the State school plantation.

H38 20 ha adjoining allotment 14 of section 14, Parish of Murmungee.

H39 8 ha adjoining allotment 5 of section 14, Parish of Murmungee.

H40 37 ha between allotments 9 and 22A, Parish of Wabonga.

Note:

Areas are approximate.

I. RIVERS AND STREAMS

(See Rivers and Streams Special Investigation (1991) - Chapter E)

PUBLIC LAND WATER FRONTAGES

Along numerous rivers and streams in the study area a strip of public land has been retained between the water and adjacent alienated land. No public-land strip adjoins land alienated before 1881, and a large number of properties in the study area have titles that extend to the banks or even incorporate the bed and banks of a stream.

Thus some streams and rivers have either no public-land water frontage or a discontinuous one. The recommendations that follow do not apply to privately owned frontages.

The locations of public-land water frontages are shown on parish plans, which are available to the public from the Central Plan Office in the Department of Crown Lands and Survey. These frontages may have a surveyed boundary of short irregular lines or be of a specified width (varying in particular instances from 20 m to 60 m) along each bank. In some cases this land has been reserved for public purposes under the *Land Act 1958* and in others it is unreserved. The land usually comes under the control of the Department of Crown Lands and Survey, while in all cases the State Rivers and Water Supply Commission controls the water.

Each of these authorities may delegate some of its responsibility to local bodies. The Department of Crown Lands and Survey may form committees of management for public purposes, while river-improvement or drainage trusts under the guidance of the State Rivers and Water Supply Commission may be formed in certain areas.

The Forests Commission controls forest produce on public-land water frontages, except where a committee of management has been formed. Public-land frontages alongside artificial water storages and aqueducts are often controlled by the management authority that controls the water.

Adjoining occupiers often hold public-land water frontages under licence for grazing purposes. Special conditions may apply to the licences - for example, to permit cultivation. The licence system has advantages in that licence-holders are required to control noxious weeds and vermin on the frontage.

This control would be extremely difficult and expensive to achieve in any other way. When a frontage is held under licence, boundary fences are normally extended to the water's edge, and legal public use is limited to through travel. The licensee often discourages public access because of an understandable fear of damage, intentional or otherwise, to his property. Vandalism and littering are problems in many areas open to the public, and firm action by management authorities is often required. Control is obtained through the normal exercise of fire, litter, firearms, and other regulations, although it is evident that more effective policing is required, particularly at weekends. Education of the public to understand the rural environment is perhaps the best solution in the long run.

These licensed river frontages are, however, public land; they are often valuable for low-intensity forms of recreation such as walking, fishing and observing nature, and provide access to extensive lengths of streams and lake shores. As mentioned above, the public are legally entitled only to walk through a licensed frontage. Licences for previously unlicensed public water

frontages, now being issued by the Department of Crown Lands and Survey, require the licensee to erect a stile or gate in any fence erected across the frontage, where appropriate, to facilitate public access. This condition has not been applied to the majority of existing licences and Council believes that in some situations - for example, along popular fishing streams - the provision of stiles would facilitate pedestrian access along public-land water frontages and would reduce damage to fences and avoid gates being left open.

Public-land frontages that are unlicensed have no restriction on public access, although use of vehicles is controlled by the *Land Conservation (Vehicle Control) Act 1973*. They are, however, normally fenced off from adjacent freehold land. The landholder has no obligation to provide access through freehold land to the frontage, and nothing in these recommendations suggests that this situation should change.

The maintenance of a vegetation cover along stream banks is important in preventing soil erosion and in preserving the local landscape. Public-land water frontages are sometimes valuable for nature conservation as well, as they may provide corridors for movement of nomadic and migratory species, or support native plants and animals that are no longer found in surrounding areas. In too many cases, however, the provisions of the relevant Acts have not been enforced effectively, and such public-land water frontages have been progressively cleared of native vegetation.

Public-land water frontage reserves

Water frontage reserves are defined for the purposes of these recommendations as being all existing water frontage reserves and other reserved or unreserved public land adjoining streams, except for those areas that have been set aside elsewhere in these recommendations, either as part of a large reserve (such as a national park or reserved forest) or for some special purpose (such as a wildlife, flora, recreation, or streamside reserve).

Recommendation

I1 ~~That the public land defined above~~

~~(a) be used to:~~

- ~~(i) protect adjoining land from erosion by the maintenance of an adequate vegetation cover~~
- ~~(ii) maintain the local character and quality of the landscape~~
- ~~(iii) conserve native flora and fauna~~
- ~~(iv) provide opportunities for low-intensity recreation~~
- ~~(v) allow access to water and for grazing of stock by adjoining landholders under licence where appropriate~~

~~and that~~

- ~~(b) (i) where a licence has been issued for a public land water frontage as in (a) (v) above, restricted recreation use by the public should be permitted (non-damaging activities such as walking, nature observation, fishing, or just relaxing should be allowed, while potentially damaging activities such as camping, lighting fires, or using motor or motorised recreation vehicles should be prohibited)~~
- ~~(ii) licensees be required to provide stiles in any fences erected across their licence area if requested to do so by the management authority~~
- ~~(iii) cultivation not be permitted, except with the approval of the Department of Crown Lands and Survey, and that, in proclaimed water supply catchments, the Soil Conservation Authority be consulted to ensure that approval to cultivate is in accordance with land use determinations affecting the water frontage made under~~

~~the *Soil Conservation and Land Utilisation Act 1958*~~

- ~~(iv) in particular cases, licensees may be required to fence off and exclude stock temporarily from some parts of the licence area where, in the opinion of the management authority, special measures are necessary to protect water supplies, to rehabilitate eroding areas, or to permit regeneration of native plants that have particular value for nature conservation~~

~~that~~

- ~~(c) the Department of Crown Lands and Survey be consulted prior to the proclamation of roads, the construction of roadways, or the erection of buildings on public land water frontages~~

~~that~~

- ~~(d) (i) public land water frontages be permanently reserved under section 14 of the *Land Act 1958*~~

- ~~(ii) where it is adjacent to or within a national, State, or regional park, reserved forest, or education area, or reference area, or bushland, streamside, scenic, flora and fauna, or wildlife reserve, it be managed by the authority responsible for the adjoining or surrounding land~~

- ~~(iii) where it is not adjacent to a park or reserve described in (d) (ii) above, it be managed by the Department of Crown Lands and Survey or by a committee of management where one is appointed.~~

[Note:

Recommendations for public land water frontage reserves and stream beds and banks have been replaced by the 1991 Rivers & Streams Special Investigation recommendations **E1—E3**, as follows]

IIA (E1) That public land water frontages

(a) be used to

- (i) conserve native flora and fauna as part of an integrated system of habitat networks across the State
- (ii) maintain or restore indigenous vegetation
- (iii) protect adjoining land from erosion, and provide for flood passage
- (iv) protect the character and scenic quality of the local landscape
- (v) provide protection for cultural heritage features and associations
- (vi) provide access for recreational activities and levels of use consistent with (i)—(v) above (see Note 1)
- (vii) where this does not conflict with (i)—(vi) above, allow access for water, and for grazing of stock by adjoining landholders under licence

that

- (b) where frontage reserves are currently licensed for grazing or other purposes, and where stream-bank or frontage vegetation is degraded, frontage vegetation is not regenerating, or stream banks are eroding, consultative groups be established by the public land managers, with waterway management, local government, and licensee representatives, as follows:

- (i) at a State level, to develop guidelines and programs for restoration of frontages, including re-establishing or regenerating indigenous vegetation
- (ii) at a regional level, to develop strategies for managing frontage reserves while vegetation is being restored
- (iii) at a local level, to set priorities and a time-table for frontage restoration and maintenance

and these guidelines, programs and strategies be implemented according to the priorities and time-table so determined (see Notes 2--6)

that

- (c) (i) where habitat and landscape are proposed to be restored, particularly in cleared or degraded areas, indigenous trees, shrubs, and ground species be planted
- (ii) if appropriate, suitable areas for more intensive recreational use be identified and facilities established
- (iii) where land exchanges are proposed that involve frontage land that is no longer adjacent to rivers, efforts be made to prevent loss of any nature conservation or other values of this land from the public land estate (see Note 5)
- (iv) a method be developed that will allow public land frontages to be readily identified, and such frontages be so marked where appropriate
- (d) (i) where a licence has been issued for a public land water frontage as in (a) (vii) above, recreation use by the public for activities such as walking, nature observation, or fishing be permitted while motorised forms of recreation not be permitted
- (ii) licensees be required to provide stiles in any fences erected across their licence area if requested to do so by the land manager (see Notes 7 and 8)
- (iii) no new cultivation for agriculture be permitted, and areas currently cultivated be reviewed by the land manager as part of a systematic assessment of river restoration priorities, with a view to phasing out inappropriate cultivation
- (iv) in particular cases, licensees be required to fence off and exclude stock temporarily from some parts of the licence area where, in the opinion of the land manager, special measures are necessary to protect water supplies, to rehabilitate areas that are eroding or salt-affected, to permit regeneration of native plants that have particular value for nature conservation, or to protect cultural, recreational, and scenic values that are sensitive to the impacts of grazing (see Note 8)
- (e) the Department of Conservation and Environment be consulted prior to the proclamation of roads, the construction of roadways, or the creation of buildings on public land water frontages

and that public land water frontages be permanently reserved under section 4 of the *Crown Land (Reserves) Act 1978* and managed by the Department of Conservation and Environment (or present manager), in consultation with the relevant waterway authority (see Note 9).

Stream Beds and Banks

11B (E2) That stream beds and banks, subject to other recommendations and guidelines in this report and statutory requirements

- (a) be used to
 - (i) conserve or restore habitat for native flora and fauna
 - (ii) provide for appropriate recreational activities and levels of use
 - (iii) provide for flood passage and drainage requirements of adjacent land
 - (iv) where necessary, provide for the passage of artificial flows of water stored within the catchment or transferred from other catchments
- (b) be maintained in a stable condition using environmentally sound techniques
- (c) where this does not conflict with (a) and (b) above, provide a source of sand and gravel

and that stream beds and banks be securely reserved and managed by the relevant waterway authority or the Rural Water Commission (or present manager), in consultation with the Department of Conservation and Environment.

IIC (E3) That

- (a) the interrelated nature of the values and uses of river frontage, beds and banks be recognised in management planning and implementation
- (b) initiatives be developed and implemented to remove economic, social, administrative and technical factors that lead to losses of river bed, bank, and frontage values, or to difficulties in achieving effective and co-ordinated restoration and maintenance programs
- (c) programs for stream bed, bank and frontage stability be carried out in accordance with [Rivers & Streams] Recommendation F9.

Notes:

1. [Rivers & Streams] recommendation F1(h) provides that a code of behaviour for recreational users of river frontages be developed and promoted.
2. Council recognises that a number of bodies currently exist which undertake, or are capable of undertaking the functional requirements at State, regional or local levels. In this context 'regional' would cover a single river basin or a number of adjacent basins, and 'local' an area within a river basin, such as individual drainage catchments or a particular river reach.
3. It is envisaged that for community consultation, Catchment Co-ordination Groups where they exist, or similar groups where they do not, could carry out or facilitate stages E1(b)(ii) and (b)(iii) above, and that the Standing Committee on Rivers and Catchments or equivalent organisation could carry out or facilitate E1(b)(i). When determining priorities, restoration or maintenance programs which lead to direct site improvement are to be given precedence.
4. Vegetation re-establishment or regeneration may require the temporary or permanent removal of stock from some frontage areas.
5. These areas could include values such as remnant vegetation, wetland habitat, opportunities for recreational use or contain features of cultural significance, such as scarred trees.
6. Identification of priorities in E1(b)(iii) should take into account the guidelines set out above.
7. The choice of a suitable design for stiles should involve representatives of the frontage user groups such as the Victorian Farmers Federation and peak recreation groups.
8. These are provisions in existing legislation, regulations, or licences.
9. It is Council's intention that these areas remain within the public land estate and be securely reserved. The *Crown Land (Reserves) Act 1978* requires that areas to be reserved be surveyed, a process which is expensive and protracted. If alternative methods become available which will achieve Council's intention of secure reservation, for example using a record plan, then these could be used, provided that the reservation is otherwise comparable to permanent reservation under the *Crown Land (Reserves) Act 1978*.

[Rivers & Streams recommendations approved by Order in Council 7/7/92]

(Possible part revocation (7.6 ha), Ovens River - Parish of Freeburgh)

- I2** That the assessment of the need for, and the planning and implementation of, any works involving changes to the beds and banks of streams be based on the principles set out above.
- I3** That plans for all works (other than those of a minor nature), together with an assessment of their environmental consequences, be submitted to the *Standing Consultative Committee on River Improvement* for consideration prior to the commencement of works.
- I4** That detailed guidelines based on the principles set out above be prepared by the *Standing Consultative Committee on River Improvement* to ensure that an optimum balance is achieved between the purpose and implementation of works on the one hand and the maintenance or enhancement of the stream's landscape values and its value as a habitat for wildlife and for recreation on the other.

Note:

The above-mentioned *Standing Consultative Committee on River Improvement* now in existence comprises representatives from the following:

- Ministry for Conservation
- Conservation Council of Victoria
- Soil Conservation Authority
- Fisheries and Wildlife Division Forests Commission
- Department of Crown Lands and Survey
- Association of Victorian River Improvement Trusts
- State Rivers and Water Supply Commission.

J. STREAMSIDE RESERVES

Throughout the study area, numerous small blocks of public land adjoin streams but are not included in the public land water frontage. These blocks have, where appropriate, been designated streamside reserves.

Some of them are currently reserved either [section 4 of the *Crown Land (Reserves) 1978*] or as reserved forest. Others are unreserved Crown land, although they may be licensed for grazing. Vegetation on these areas varies from relatively dense red gum forest to open grassland. Every effort should be made to conserve native trees on these reserves where they exist, and to encourage regeneration or restoration where the vegetation has been depleted or destroyed.

Blocks of public land such as this have values for nature conservation and recreation. They allow public access to the river or stream, especially where access along the public land water frontage is difficult. The management authority may provide facilities for activities such as camping on streamside reserves in areas where conflict with nature conservation values are minimal.

It is intended that public land water frontages adjacent to or within streamside reserves be managed by the authority responsible for the streamside reserve.

Note: Streamside reserves are separate and distinct from the public land water frontages described in section I of these recommendations.

Recommendations

J1—J23 That the areas described below and shown on the maps be used to:

- (a) provide passive recreation such as picnicking, walking, angling, and, where permitted by the managing authority, camping
- (b) conserve flora and fauna
- (c) maintain the local quality and character of the landscape
- (d) provide grazing, at the discretion of the management authority, if this use does not conflict with the maintenance of the water quality of the adjacent stream or with (a), (b), and (c)

and that they be reserved under [section 4 of the *Crown Land (Reserves) 1978*] and managed by the Department of Crown Lands and Survey, except where otherwise indicated.

- J1** 3.8 ha west of allotment 5 of section 4, Parish of Bungamero, to be managed by the Forests Commission.
- J2** 2 ha, State School Reserve east of allotment 9 of section 11, Parish of Carboor.
- J3** 22 ha adjoining allotment 9 of section 11, Parish of Carboor.
- J4** 1 ha south of allotment 38 of section 6, Parish of Laceby.
- J5** 13 ha adjoining allotments 31C and 31D, Parish of Oxley.
- J6** 9 ha, reserved forest east of allotment 3A of section 25, Parish of Barnawartha North.
- J7** 12 ha, camping and water reserve west of allotment 15 of section 29, Parish of Barnawartha North.
- J8** 14 ha, reserved forest north of allotment 16 of section 29, Parish of Barnawartha North.

- J9** 12 ha, reserved forest north of allotment 2 of section F, Parish of Barnawartha North.
- J10** 45 ha, reserved forest north of allotment 6 of section F, Parish of Barnawartha North.
- J11** 1.4 ha, allotment 1B of section K, Parish of Wooragee North.
- J12** 7 ha adjoining allotments 11 and 5B of section O1 Parish of Yackandandah.
- J13** 0.8 ha adjoining allotment 8 of section 5A, Parish of Tangambalanga.
- J14** 4 ha adjoining allotment 3C of section 16, Parish of Wyeboo. Gravel extraction should cease.
- J15** 58 ha in the Parish of Bright, being all of the public land (excluding the reserved frontage) north of the Ovens River from the Bright township boundary in the west to the Tawonga Gap road in the east.
- J16** 0.9 ha, allotment 17E of section 7, Parish of Porepukah.
- J17** 2 ha, allotment 6A of section 13, Parish of Porepukah.
- J18** 7.5 ha adjoining allotment 12A of section 11, Parish of Porepukah.
- J19** 2.4 ha, adjacent to the Ovens River adjoining sections, B, C, and D, Township of Bright.
- J20** 30 ha, being all the Crown land west of sections N and R, Parish of Bright, between the Bright—Freeburgh road and the Ovens River, and between the two bridges.
- J21** 48 ha adjoining allotments 6A, 6B, 19, 19A, and 19B, Parish of Freeburgh. This area should not be used for an airstrip.
- J22** 28.3 ha east of allotments 56, 58, and 60, Parish of Freeburgh.
- J23** 10 ha, reserved forest, east of allotment K1 (no section) Parish of Barnawartha North.

Note:

Areas are approximate.

K. ROADSIDE CONSERVATION

The primary purpose of road reserves is obviously to provide for communication, transport, and access. However, vegetation along the road verges can have particularly high conservation, recreation, and landscape values, especially in agricultural districts where most of the native vegetation has been cleared.

Nature conservation

Vegetation on roads is important for nature conservation because it often contains the only remnants of the region's native plant associations. Such remnants are valuable for preserving species with restricted distributions, and genetically interesting variants of widespread species. They are often useful in land studies, as they may permit the original pattern of the vegetation to be pieced together. They also provide habitat for some native animals, and have special significance as pathways permitting birds to move through the countryside on annual migration, or in search of food or nesting sites.

Accumulation of fuel along roadsides is a fire hazard of concern to fire-control authorities, and it must often be reduced by burning-off during cool weather. This burning-off sometimes conflicts with scenic and conservation values, and the Council believes that such burning should be restricted to strategically important areas and kept to the minimum consistent with efficient fire protection.

Recreation and landscape

In rural districts vegetation along roads is often a major component of the landscape, breaking the monotony of cleared paddocks and accentuating the contours of the land. It provides a pleasant variable road environment for motorists, and shady areas for rest and relaxation, especially where wayside stops have been established.

The roadsides of the north-east comprise one of the region's many attractions, and a great number of roads within the study districts have considerable landscape significance. Examples include the Hume, Ovens, Kiewa Valley, and Omeo Highways, and such areas as the Murmungee Basin and around Oxley and Yackandandah. Several of these are within areas designated as classified landscapes by the National Trust.

Pleasure driving has become a major recreational activity. Such drives often have no fixed destination - driving and viewing the landscape from the car is the essence of the activity. Loop roads that have scenic value and those that lead to picnic facilities or to places of historic interest are, however, the most popular. Clearly the needs of pleasure drivers are best met by retaining or creating visually diverse environments along roads of different standards. The Council wishes therefore to draw attention to two particular types: back roads and main recreation roads.

Back roads

With increasing population and use of cars, a tendency has developed for all through roads in the study area to be continually upgraded. Tree-lined back roads, with gravel surfaces on narrow winding alignments, are becoming increasingly uncommon. Yet for many people such roads best fulfill their need for contact with rural environments. The Council believes that a conscious effort must be made to maintain the character of these roads, particularly when upgrading or realignment is being considered.

Main recreation roads

A number of roads in the study area receive particularly heavy recreational use. They include the Ovens and Kiewa Valley Highways, and the Glenrowan—Oxley—Myrtleford road.

Council believes that it is important that the diversity and attractiveness of the landscape viewed from such roads should be maintained or improved. This requires concern for the landscape values of adjoining private and public land, as well as proper management of the road reserve. In considering the planning of such roads, the need to provide roadside relaxation facilities should also be given high priority. Numerous opportunities exist, such as at Taylor's Gap and Kancoona Gap, for the development of attractive roadside stops.

Management

Responsibility for the management of vegetation on roads is vested in several authorities depending on the status of the road. The most important roads in Victoria—State highways, freeways, and tourist roads (9000 km) - are declared under the *Country Roads Act 1958*, and are completely under the control of the Country Roads Board. Main roads (14 500 km) are also declared, but are controlled jointly by the Country Roads Board and local municipal councils. Vegetation on unclassified roads (about 98 000 km of mostly minor roads) is under the care and management of municipal councils, although it is owned by the Crown. The Forests Commission has the control of vegetation on unclassified roads that pass through or adjoin State forest. (Note: These figures are for all Victoria.)

Unused roads constitute another category. When the State was being settled, surveyors provided access to every block by means of a surveyed Crown road. Many of these have never been used as roads, and they are usually held by the occupiers of the adjoining land under an unused-road licence. The Forests Commission controls the vegetation on unused roads that have been formally declared as such.

Recommendations

- K1** That road reserves throughout the State continue to be used for communication, transport, access, surveys, and utilities. Landscape, recreation, and nature conservation values can best be protected by observing the following guidelines. The Council recognises that many of these are already being implemented by the Country Roads Board.
- (i) When improvements to a road are being carried out, trees and shrubs on the road reserve should be disturbed to the minimum extent consistent with the safe and efficient design and use of the road.
 - (ii) Where a road carrying a healthy stand of trees is to be duplicated, the new carriageways should be located, where feasible, on purchased private land, and the trees be retained as a median strip.
 - (iii) Where realignment of a road results in a section of the old road being cut off from the new alignment, wherever possible that section should not be sold but used as a recreation and rest area or incorporated into an adjacent appropriate reserve.
 - (iv) Where a pipeline or overhead wires are to follow a road carrying trees and shrubs in a rural district, the easements for these utilities should be located on private land alongside the road if this is already cleared, rather than clearing roadside vegetation to accommodate them.
 - (v) Grazing of domestic stock should be discouraged on roadsides in areas that have a predominantly native ground flora or where it is necessary to encourage regeneration

of native species.

- (vi) Plantings of trees and shrubs native to the area should be established along roads from which trees and shrubs have been cleared.
- (vii) If gravel, sand, and earth for roadworks must be taken from the road verges, then this should be done in such a manner as to ensure a minimum disturbance of the native vegetation, and the disturbed area should be rehabilitated where possible with vegetation native to the area.
- (viii) The practice of burning-off roadside vegetation should be kept to a minimum consistent with providing adequate fire protection.
- (ix) Weeds and vermin on roads should be controlled by means that do not conflict with the uses given above.

For unused roads, the Council recommends that the following guidelines be observed.

- (i) The clearing of native trees and shrubs other than noxious weeds should continue to be clearly prohibited in the conditions of unused-roads licences.
- (ii) Where it appears to be reasonable, a condition permitting public access should be written into unused-road licences.
- (iii) Unused roads should be alienated only if an investigation shows that they have no value for recreation, conservation, or other public use.

L. EDUCATION AREAS AND SCHOOL PLANTATIONS

EDUCATION AREAS

Environmental education is a fundamental step in the conservation of natural resources; it has become an important part of school curricula, and forms the basis of courses for tertiary and adult students.

Environmental education is indispensably linked with field studies. It is concerned with studying and appreciating all sorts of environments - natural ones undisturbed by Man's activities, natural ones manipulated to produce particular products such as hardwood timber, or drastically altered ones such as are found in urban and agricultural areas. One of its basic requirements is access to land.

Council, realising that public land provides excellent opportunities for studies of a wide range of environments, has recommended that almost all public land (including parks, wildlife reserves, and hardwood production areas) be available for educational uses. Council believes that in most situations educational studies can take place without conflicting with the primary use for which an area is set aside. Indeed, in some cases it is the manipulation of the land for the primary use that makes the area of value for environmental education. Council believes, however, that it is necessary for some relatively undisturbed land to be set aside specifically for educational use as, unless this is consciously done, such environments will tend to be changed by other uses. In these areas, education would be the primary use and other uses would only be permitted when not in conflict with it. Activities permitted in education areas that may not be appropriate elsewhere would include long-term studies, collection of biological material, biomass studies, and the establishment of growth plots.

In selecting land for education areas, the Council has sought to provide areas:

- giving examples of major land types
- with maximum diversity of vegetation types, soils, etc., and with natural boundaries
- located with consideration of ready access by users
- located so as to minimise the danger that wildfires present to users
- located in proximity to other land types and to a variety of other land uses
- large enough to prevent over-use and to allow for zoning to protect areas of special value
- selected so as to minimise erosion and pollution hazards.

No one organisation should have the exclusive right to use a particular education area, as it is important that students have the opportunity to visit a number of education areas in various land types throughout the State rather than visiting the one site several times. Minimum facilities such as toilets and shelters would be required at each education area, and it would be desirable to have accommodation either on the area or at some nearby locality. Whether or not accommodation facilities are located on the education area will depend on its proximity to other areas of educational value in the region and also on the availability and location of existing accommodation. In forested areas accommodation and other permanent facilities should only be provided where adequate safeguards against fire can be made.

Council believes that the land management of education areas should be the responsibility of the authority managing the adjacent or surrounding public land, while the Ministry for Conservation (in consultation with representatives of the Education Department, other user organisations, and

the land manager) should be responsible for implementing educational aspects, and for coordinating use of the areas.

Recommendations

L1—L4 That the areas of public land listed below and shown on the maps be used to provide opportunities for students of all ages to:

- (a) study the nature and functioning of reasonably natural ecosystems in a manner such that the integrity of these ecosystems is maintained as far as practicable
- (b) compare the ecosystems within education areas with other nearby natural and modified systems
- (c) observe and practise methods of environmental analysis, and the field techniques of the natural sciences
- (d) conduct simple long-term experiments aimed at giving an understanding of the changes occurring in an area with time

and that they be permanently reserved under [section 4 of the *Crown Land (Reserves) 1978*].

L1 Carboor Upper (450 ha)

Ordovician sediments; dissected moderate slopes. Open forest II of long-leaf box, red box, red stringybark, broad-leaf peppermint, narrow-leaf peppermint, and eurabbie. Elevation 300 m; rainfall 1000 mm. Myrtleford—Whitfield and Bowman land systems.

To be managed by the Department of Crown Lands and Survey.

L2 Mt. Barambogie (700 ha)

Granite; plateau, slopes, and foothills. Open forest II of long-leaf box, red stringybark, and red box; open forest I of long-leaf box, red box, white box, and Blakely's red gum, and of black cypress pine. Elevation 200–400 m; rainfall 700 mm. Barambogie land system.

To be managed by the Forests Commission.

L3 Lockhart Creek (500 ha)

Gneiss; dissected, steep. Open forest III of narrow-leaf peppermint, broadleaf peppermint, and candlebark; open forest II of broad-leaf peppermint, red stringybark, and red box. Elevation 500–700m; rainfall 900 mm. Bunjil land system.

To be managed by the Department of Crown Lands and Survey.

L4 Wandiligong (180 ha)

Ordovician sediments, dissected, steep. Open forest III of narrow-leaf peppermint, brittle gum, broad-leaf peppermint, and eurabbie; open forest II of broad-leaf peppermint, narrow-leaf peppermint, and candlebark. Elevation 400–600 m; rainfall 1200–1300 mm. Tawonga—Wermatong land system.

To be managed by the Department of Crown Lands and Survey.

SCHOOL PLANTATIONS

Throughout the study area, numerous areas of public land have been set aside as school endowment plantations as part of the various schools' education resources. The plantations were initially established to instill through community involvement a love of forests and an

appreciation of their value, and in fact many of them are well suited for regular use as a teaching resource of this nature. It is expected that this use will increase as courses embracing various aspects of environmental science are developed.

Many school plantations have been planted to radiata pine and the revenue from the sale of produce has been used to provide amenities required by the school. In some cases, however, these plantations have not been very successful in providing revenue as the sites are unsuitable for economic growth or the plantations are too small or the location too far from processing centres to allow economic harvesting. In some instances, radiata pine plantations have failed due to poor management.

Council believes that all the existing plantations should be assessed in order to establish their value as a teaching resource. The use of those that are not now needed or that are unsuitable for teaching purposes for some reason, such as their location, should be terminated. Those planted to radiata pine that have limited value as a teaching resource, although satisfactory for wood production, may continue to be used for such production but should be reviewed when the pines are harvested.

Unused sand or gravel pits, or cleared areas such as former schools sites, require rehabilitation or revegetation. Council considers that, in some instances such areas could be used as school plantations. Their rehabilitation not only could be used to demonstrate various aspects of environmental science, but also could provide an opportunity to involve pupils in projects that are clearly in the public interest.

It should be realised that most of the public land in the State is available for some form of educational use, and education areas have been recommended specifically for this purpose. While, as indicated in the section on Youth Camps, the Council is not in favour of setting aside land for the exclusive use of any one organisation, schools wishing to use an area of nearby bushland for teaching purposes should consult with the appropriate managing authority. Their use of such an area should be in harmony with the manner in which the surrounding public land is used.

Recommendations

L5 That areas set aside for school plantations be primarily used as a teaching resource and utilised to foster awareness and knowledge of the trees and other living organisms that comprise a forest.

Note:

This recommendation does not exclude the use of school plantations as a means of raising revenue for schools. Such use, however, should be secondary to the educational use.

L6 That the value of each existing school plantation as a teaching resource or for revenue production be assessed by the Education Department - in consultation with the Forests Commission and the Department of Crown Lands and Survey, where appropriate - and that the use of those considered unsuitable or no longer required be terminated.

L7 That new school plantations not be established on public land unless they would clearly enhance conservation values - for example, by the rehabilitation or reforestation of cleared or eroded areas.

M. RECREATION

The term recreation includes the multitude of different activities that people undertake during their leisure time. In fact, the distinguishing characteristic of recreation is not the activity itself so much as the attitude with which it is undertaken - activities (or inactivities) undertaken with little or no feeling of compulsion are almost certainly recreation.

Outdoor recreation is of particular interest to Council, as the public land of the study area provides important opportunities for it. Throughout, these recommendations refer to the countless forms of outdoor recreation in a number of ways.

- Formal recreation activities include all organised sports and other group activities, while activities such as picnicking, fishing, and hiking are grouped as informal.
- Passive recreation covers situations where the individual obtains his recreation through absorbing the sights, sounds, and atmosphere of the surrounding environment while expending little physical effort. Examples are picnicking, nature observation, and strolling.
- Active recreation covers situations where the individual must expend considerable physical effort to obtain some mastery of physical forces in order to satisfy his particular recreational needs. Examples are playing organised sport, bushwalking, and rock-climbing.
- Open-space recreation includes all recreational activities that require spacious outdoor surroundings, whether the activities be active or passive, formal or informal.
- Intensive recreation involves large numbers of people per unit area. For example, areas such as picnic grounds and beaches near Melbourne would be considered to be intensively used.

In view of the predicted increase in demand for outdoor recreation and the high capability of some public land to meet this demand, the Council, in making its recommendations, has suggested that much public land should be available for recreational uses of some sort.

Accordingly, it has set aside a variety of reserves that will provide a wide range of opportunities. Council could not, however, make recommendations covering in detail all the forms of recreation currently pursued on public land.

These include activities such as bushwalking, rock-climbing, orienteering, canoeing, fishing, hunting, fossicking, picnicking, horse-riding, boating, trail-bike-riding, and pleasure driving. Council believes that activities such as these can be accommodated without detriment to other values, somewhere on public land. Consequently Council points out that outdoor recreation in general is an acceptable primary or secondary use of much public land (except reference areas and some water storages and their buffers) and has left the details of recreational use to the land managers.

The various recreation activities differ in their requirements for types of land, size of area, and site location. They also differ in their impact on the land and on other activities (including other forms of recreation). Generally, any one activity pursued at a low level of intensity poses little threat to the environment and seldom conflicts with other activities. With increasing intensity, conflicts and problems can arise. There is always the problem of recreation damaging the environment it seeks to use. Council therefore believes that the land managers should aim at controlling the levels and patterns of recreational use according to the capability of the area to sustain such use without irreversible damage or significant conflict with the primary purposes of the area, while at the same time avoiding any unnecessary restrictions on usage. Special care will be required in the location and management of areas zoned for intensive recreation, to prevent environmental damage. Thus more stringent restrictions can be expected in areas where the vegetation and soils are sensitive to damage, such as in sub-alpine, coastal, and low-rainfall areas, and where the natural environment or special natural features are being preserved.

Two particular forms of recreation that may pose a problem for the land managers, whether now or in the future, are further discussed below.

Motorised recreation

Much of our outdoor recreation depends on motor vehicles. These may be conventional cars, four-wheel-drive vehicles, or motor-bikes. They may be used for touring and sightseeing, as a means of obtaining access to a particular area where other forms of recreation will be undertaken, or - when they are driven in competitive rallies or in ad verses but challenging road conditions - as a source of recreation in themselves.

Any vehicle registered under the *Motor Car Act 1958* has access to any legally open road anywhere on public land. Roads are defined in the *Land Conservation (Vehicle Control) Regulations* as being 'any road formed for the passage of vehicles having four or more wheels'. The land management authorities can close roads when traffic exceeds their physical capacity, or when vehicular access or its associated activities seriously conflict with the area's primary purpose. Seasonal closure of some roads may be necessary to avoid erosion and excessive maintenance, or because of extreme fire hazard. As the intensity of recreational use on public land increases, it is inevitable that more roads and tracks will be closed to vehicular access, particularly in areas with erodible soils. Council believes that these closures will not significantly reduce the many hundreds of kilometres of roads and tracks currently open to the public.

Motor vehicles leaving roads on public land without the written permission of the land management authority contravene the provisions of the *Land Conservation (Vehicle Control) Act 1972* and Regulations. Moreover, they can, and do, cause extreme damage to vegetation and soils.

The demand exists for the provision of some areas of public land to accommodate and relocate the off-road activities of motor vehicles, particularly trail-bikes. Such areas could, for example, take the form of defined trails in some hardwood or softwood forests, or could include disused quarries or parts of some recreation reserves close to urban centres. Where possible, the alternative use of suitable private land should be considered. Areas chosen, whether public land or freehold, would have to be in situations where damage to soil and vegetation would be minimal, and where noise would not cause undue disturbance to other people using or living in nearby areas. Council points out that there is a serious and growing problem of damage to soils and vegetation by spectators attracted to these activities.

Youth camps

Currently there are few permanent youth camp sites in the study area. Demand will probably increase, however, for sites for use by scouts, schools, church groups, and the like. Users have generally preferred sites situated in pleasant bushland, close to a permanent stream, readily accessible by road, and in areas where the safety of the camp and its occupants can be ensured during periods of high fire danger. Such sites are relatively scarce and their use for youth camps is in direct competition with their use for less restrictive public activities, such as picnicking or general camping.

Camps on public land vary greatly - in the purpose for which they are constructed, in their standard of maintenance, and in the degree to which they are used. Some are designed to provide full accommodation with campers living in huts that have electricity and hot water provided; others have only minimal facilities, with campers living in tents. Some have had considerable amounts of money and volunteers' time and effort put into their construction and maintenance;

others have been built and are maintained at very low standards. Some are used for much of the year, with the owner organisation allowing use by other groups. Others are used only occasionally and exclusively by one group.

User groups have an increasing tendency to acquire freehold land for their actual camp site, while using adjacent public land for their outdoor activities, and Council believes this trend should be encouraged. While recognizing that a variety of types of camp may be needed, Council believes that any camp permitted on public land should be properly located, constructed, and maintained. For efficient management, it may be necessary for a single organisation to be given tenure over a minimum area at any individual camp site under the control of the land management authority. Council believes, however, that these camps should still be used as fully as possible consistent with avoiding damage to the environment. The wider use of camps on public land is desirable in order to avoid proliferation of camp sites, and there is a need for co-ordination of information regarding the availability of those camps that could be used by groups who do not have tenure of their own.

It is likely that, in some cases, the land management authority will need to phase out or relocate existing camps if these conflict with the primary use of the surrounding land, or if they are in particularly hazardous areas from the point of view of pollution, erosion, or wildfire.

Recommendations

- M1** That public land continue to be available for a wide range of recreational uses where these can be accommodated without detriment to other values. Land management authorities should aim at controlling the types, levels, and patterns of recreational use according to the capability of particular areas to sustain such use without irreversible change or significant conflict with the primary purpose of the area.
- M2** That vehicular use of roads (within the meaning of the Land Conservation (Vehicle Control) Regulations) continue to be permitted on public land except where closure is necessary because of erodible soils, seasonal conditions, excessive maintenance, or conflict with the primary use of the area.
- M3** That land management authorities endeavour to provide some areas for off-road vehicular use within land under their control.
- M4—M10** That the areas described below and shown on the maps be used for organised sports (football, horse-racing, golf, etc.) and informal recreation (picnicking, camping, etc.) as permitted by the managing authority;
and that they be permanently reserved under [section 4 of the *Crown Land (Reserves) 1978*] and managed by the Department of Crown Lands and Survey.

- M4** Existing recreation reserves.

Note:

Existing recreation reserve, Porepunkah, comprises Crown land south of allotment 2, 2A and 2B and Crown land between allotment 1C and the Public Purposes Reserve – Parish of Porepunkah. Also included is the Camping Reserve within and to the west of the township of Porepunkah.

- M5** 65 ha approximately, being Crown land in the Parish of Bright along Morses' Creek from the northern end of allotment 102K, upstream to Splashett's (or Mills') Bridge (adjacent to allotment S38B) including the Alpine Park Recreation Reserve and Crown land in the

Township of Wandiligong to the west of the Bright—Wandiligong road.

M6 1 ha, being allotment 12 of section 2, Parish of Kergunyah North.

M7 Lake Harvey: 20 ha adjoining allotment 11B of section B5, Parish of Yackandandah.

M8 Rowdy Flat: approximately 230 ha comprising Crown land on both sides of Yackandandah Creek, downstream of the Myrtleford road bridge in the Township of Yackandandah, Parish of Yackandandah.

Note:

The existing Public Park and Recreation Reserve and the Racecourse and Recreation Reserve are covered by Recommendation M4.

M9 4 ha between allotments 11A and 15 of section H, Township of Bright.

M10 Extension of existing Recreation Reserve in section M, Parish of Beechworth: approximately 30 ha comprising allotment 8A, the rifle range west of allotment 8A, the Hospital Reserve (Gaz. 1894/4417), and the Hospital Extension (Gaz. 1907/2922).

N. SCENIC RESERVES

These areas are set aside to preserve scenic features or lookouts of particular significance.

Recommendations

N1—N7 That the areas described below and shown on the maps be used to preserve scenic features or lookouts

and that they be permanently reserved under [section 4 of the *Crown Land (Reserves) 1978*].

N1 Powers Lookout (1100 ha)

This scenic reserve includes Powers Lookout and numerous other scenic vantage points overlooking the King Valley at the edge of an undulating plateau in Carboniferous conglomerates. There are many interesting cliffs and caves at the plateau edge. The area has historical associations with the bushranger Power, and the plateau area back from the cliffs is particularly suitable for recreation. The reserve supports narrow-leaf peppermint open forest III, broadleaf peppermint open forest II (both associations - mapping units 8a and 8b), messmate open forest III and swamp gum open forest II.

To be managed by the Department of Crown Lands and Survey.

N2 Mount Stanley (2700 ha).

In addition, it is recommended that the area be used for:

- (a) the protection of the adjacent softwood plantation
- (b) low-intensity hardwood production

where these activities do not conflict with maintaining the scenic and conservation values of the reserve.

This scenic reserve includes the Mount Stanley ridge and the Mount itself, which is an outstanding feature of the landscape, and offers outstanding views over the adjoining plateau and into Circular and Basin Creeks, across to the Dingle Range, and eastwards to Mount Jack and Mount Big Ben. The reserve also contains about half of the Circular and Myrtle Creeks catchment. The view from the Myrtle Creek road into this area is of a high order and has been classified by the National Trust.

To be managed by the Forests Commission.

N3 Barnawartha Scenic Reserve (approximately 130 ha)

This isolated hill is semi-cleared, but does carry some white box forest. It offers extremely good views of the surrounding country.

To be managed by the Department of Crown Lands and Survey.

N4 Mount Porepunkah Scenic Reserve (400 ha)

This scenic reserve includes the summit and upper slopes of Mount Porepunkah, and offers commanding views of Mount Buffalo, the Ovens Valley, and the surrounding hardwood and softwood forests. Much of the reserve has high capacity for recreation.

To be managed by the Forests Commission.

N5 Tawonga Gap Scenic Reserve (approximately 50 ha)

This scenic reserve - an intensively used lookout point on a major tourist road - provides magnificent views of Mount Bogong (particularly popular when snow covered in winter), and the upper Kiewa Valley. Any development of the reserve to provide facilities or improve vantage points should take account of its ridge-top location and its landscape value when viewed from elsewhere in the area.

To be managed by the Department of Crown Lands and Survey.

N6 2.8 ha adjoining allotment 19A of section 1, Parish of Whitfield.

To be managed by the Department of Crown Lands and Survey.

N7 5 ha adjoining allotment 3 of section D, Parish of Murmungee.

To be managed by the Department of Crown Lands and Survey.

O. AGRICULTURE

The Council recommends that, at this stage, no additional large areas of public land be developed for agriculture and that only small areas of suitable land on the perimeter of public land be made available to improve the viability of existing and adjoining farms (see Schedule 1).

Considerable untapped potential remains for further developing the alienated lands, particularly on the river flats, plains, and rolling hills at lower elevations and some of the plateaux at high elevations. If the demand for agricultural products outgrows the ability of the private lands of the State to produce them, further consideration would be given to the provision of additional public land for agriculture. It is emphasised, however, that the uncommitted land in the study area mainly lies in forested mountainous areas and its preferable uses should be for water supply, timber production, recreation, and nature conservation.

Agricultural research

Some public land in the study area is used for agricultural research. The Council does not propose any change of use for these areas.

Grazing on public land

Licensed grazing of public land is practised throughout the study area, both as forest grazing and grazing of public land water frontages (see Chapter I). Forest grazing is more common in the southern parts of the study area, where native and introduced grasses and herbs are grazed at a low intensity throughout the forested foothills and valleys. The availability of this public land is not of great significance in the economy of the beef industry in the region. It is, however, of considerable importance to the individual licensees, for whom the forest grazing often forms an integral part of their enterprise. In these situations it may be desirable to make land available on a longer tenure than the current annual licence system.

Twenty-one-year licences with stringent conditions on the use of fire and with conditions that permit the managing authority to exercise general supervision of the management of the licensed land, especially with respect to stocking rates, would give the licensee reasonable security of tenure and thus encourage him to conserve the grazing resource.

Situations also arise where graziers who do not normally depend on forest grazing do require additional areas to provide short-term feed for cattle. These situations include drought, fire, and flooding. Council believes that areas of public land should be available to meet such emergency situations, and that such grazing could be controlled by the issue of either agistment rights or annual grazing licences.

Forest grazing is presently controlled by the land management authority responsible for each particular area, and Council believes that there could be a greater degree of co-ordination and the formulation of a common policy in the selection and management of areas on which grazing will be permitted.

There is thus a need for a committee comprising representatives of the Forests Commission, the Department of Crown Lands and Survey, the Department of Agriculture, the Soil Conservation Authority, and the graziers to advise the management authority with respect to the following matters:

- forms of tenure

- selection of the areas suitable for grazing, their allocation, and the delineation of their boundaries (the Council's recommendations for the study area may necessitate some reallocation of leases)
- type of livestock and stocking rates
- fencing and water supply
- exclusion of stock when and where necessary to provide for the conservation of flora and fauna or the reclamation of eroded areas
- review of rental procedures.

In advising the management authority, due consideration would need to be given to the financial implications of terms and conditions that may be attached to the licence. Some suggested terms and conditions are given below.

- In the case of long-term licences, the licence will be reviewed after two-thirds of the time has expired and a decision on renewal for a further period will then be made.
- Cultivation and clearing will not be permitted, except when this is necessary to control vermin and noxious weeds.
- Licensed areas will continue to be available for timber production, apiculture, and other uses that would be permitted if the area was not licensed.
- The conditions applying at present to grazing licences under the *Land Act 1958* and the *Forests Act 1958* that are consistent with these recommendations and suggested terms and conditions will apply.

Recommendations

Agricultural land

O1 That the land described in Schedule 1 below and shown on the maps be used for agriculture. It is intended that this land should form additions to present farms rather than be developed as new units.

With reference to section 5 (3) of the *Land Conservation Act 1970*, the Council recommends that land described in Schedule 1 below be made available for agriculture in accordance with the provisions of the *Land Act 1958*.

SCHEDULE 1

Parish	Location	Area (ha)
Barwidgee	Allotments 1G and 1F of section 21	1.6
Barwidgee	Allotments 10A and 10B of section 26	35.6
Bright	Adjoining allotment 15N of section C (see Map 6)	5.5
Bright	Part allotment 9 of section Q (see Map 7)	7.4
Byawatha	West of allotment 16B of section 7 (see Map 8)	4.5
Edi	Allotment 19B of section A	3.4
Mitta Mitta	The south-east corner of allotment 20 of section E*	7.2
Myrree	Part of allotment 110C (see Map 9)	11.8
Stanley	Adjacent allotments 4 and 9 of section M	1.1
Stanley (Tp)	Allotment 3 of section C	0.1
Tawanga	Part of allotment 44 (see Map 10)	7.0
Wagra	In allotment 2 of section 2	6.5
Wooragee North	Adjoining allotments 1A and 1B of section B (see Map 11)	1.2
Wyeboo	Allotment 6C of section 16	11.0

Tobacco Research Station, Myrtleford

O2 That the area of 65 ha, comprising allotments 6, 6A, and 10 of section 24, Parish of Barwidgee, be used for agricultural research;

and that it be permanently reserved under [section 4 of the *Crown Land (Reserves) 1978*] for this purpose, and managed by the Department of Agriculture.

Forest grazing

O3 That

(a) grazing be permitted on land reserved for timber production and on uncommitted land, the precise areas to be determined by the management authority;

that

(b) on areas where grazing is permitted, the form of tenure be, as considered most appropriate by the management authority, agistment, annual licence, or longer-term licence of up to 21 years;

and that

(c) a committee be set up as described above to advise the management authorities on matters relating to grazing on public land.

P. MINERAL AND STONE PRODUCTION

The continued existence of our technological society will depend on the availability of minerals. The study area contains known deposits of 'gold' and 'minerals' as defined in the *Mines Act 1958* and as subsequently gazetted (metallic minerals, coal, etc.). Nevertheless, knowledge of the location of our mineral resources is far from complete and new deposits of commercial significance will undoubtedly be found. Furthermore, uneconomic deposits of currently important minerals may become economically exploitable and other minerals that are not used at present may become important.

Government has the responsibility to establish the existence and extent of the State's mineral resources. When a new deposit is discovered in an area where mineral extraction is not a currently approved land use, it may be of such importance that a change of the land use is required in the national interest. The decision on whether such a change is in fact necessary can only be made against a background of the best available knowledge of the location and extent of alternative sources of the particular mineral.

It is important therefore that the reservation of conservation areas should not automatically exclude exploration for mineral or fossil fuel resources, either by exploration companies under strict supervision or by the Mines Department itself. Attention should be directed towards ensuring that other values and interests are protected, rather than attempting to prevent exploration activities.

Recent legislation has improved control of operations by holders of miners' rights and some areas in the State are excepted under the *Mines Act 1958* from occupation for mining purposes. Before such operations are authorised, the Department of Mines should consult the public authority or Department that manages the land.

Materials covered by the definition of 'stone' in the *Extractive Industries Act* are widespread in the area. These materials include rock, gravel, clay, sand and soil. There is a strong community demand for new and better roads and buildings, and so for the materials necessary for their construction. Many of these materials are provided from private land, but public land is also an important source.

The Council is concerned by the complexity of legislation and procedures governing extraction of 'stone', and by the lack of control accompanying some of these procedures, whether in theory or in practice. (For example the Country Roads Board and municipal councils are not bound by many provisions of the *Extractive Industries Act 1966*.) A substantial number of unwise excavations have been made upon public land, and in some instances the rehabilitation of excavated land is lagging.

Poorly planned and located excavations can affect surrounding lands through noise, dust, unsightliness, and erosion, and can diminish the value of the land for nature conservation. With care, however, these effects can be entirely removed or minimised.

The Council believes that:

- (i) All exploration for and extraction of 'gold', 'minerals', and/or 'petroleum' on public land should be subject to the approval of, and to the conditions imposed and enforced by the Department of Mines in consultation with the authority managing the public land.

In considering an application, the Department of Mines should apply the guidelines listed below and should consult with the managing authority and, where necessary, with the Soil Conservation Authority - with a view to agreeing on reasonable conditions to be enforced by the Department.

- (ii) There should be co-operation and consultation between the land managing authorities, the Mines Department, and other relevant authorities with respect to the procedures to be adopted for the exploration and extraction of 'stone' on public land. Any operations on public land should be subject to the approval of the appropriate managing authority.

In all cases, the procedures that are established should apply to municipal councils, the Country Roads Board, and other public authorities as well as to commercial operators. To ensure this, the relevant Acts may have to be amended.

- (iii) A system should be established that would guarantee available funds for progressive and final reclamation for any excavation or operation before work commences.
- (iv) Royalties for materials extracted from public land, including site rental when appropriate, should be more closely related to the market value of the material. This would eliminate the temptation to use public land purely on the grounds of the nominal royalties often levied in the past.
- (v) The following guidelines should apply to all extraction from public land:

- No sites for the extraction of 'gold', 'minerals', and 'petroleum' should be opened in areas that the Mines Department, after consultation with the land management authority, considers to be of greater value for their aesthetic or nature conservation values.

The Mines Department should not permit any extraction of 'gold' or 'minerals' unless satisfied as to the reasonable economic viability of the proposed extraction. The Department should also require, as far as is reasonably possible, the lodgement of mining plans that show the expected post-mining state of the land.

No sites for the extraction of 'stone' should be opened in areas that the managing authority consider to be of greater value for their aesthetic or nature conservation values.

- Extraction of 'stone' should generally be concentrated on the fewest possible sites in an area, and any one site should be completely worked out and where possible rehabilitation ensured before a new site is exploited. Where the nature of the resource permits, excavations for 'stone' should be deep and limited in area in reference to shallow excavations over a wide area. The extraction of granitic sand occurring as shallow deposits in the weathered profile should not be permitted until it has been established that no suitable alternatives are available. In the special circumstances where approval is given for this form of extraction, particular attention should be given to the prevention of soil erosion.
- Where an application for the removal of 'stone' from a stream bed is considered, the land management authority must take particular care to ensure that the operations will not directly or indirectly cause erosion of the bed or banks, or undue pollution of the stream. Before giving approval, the authority should consult with the State Rivers and Water Supply Commission, the Soil Conservation Authority, the Environment Protection Authority, and the Fisheries and Wildlife Division, and should consider the scenic and recreation values of the area.

Alternative sources with a lower environmental impact should be used where they are available. The environmental effect or extraction may be reduced if alluvial stone is obtained from properly managed quarries on the river terraces, rather than from the present bed of stream.

- All extraction sites should be fully rehabilitated where possible. Rehabilitation should follow extraction progressively when possible, but otherwise should begin immediately extraction is completed. The requirements for rehabilitation should be included in the conditions of the lease or licence before any approval to extract is granted. The rehabilitation may include, for example, replacing topsoil, re-vegetating the site with plantation forest, filling a quarry with water and developing the site as a park, using a gravel pit for off-road vehicles, using a quarry for garbage disposal prior to rehabilitation, or restoring the site as closely as possible to its original topography and re-vegetating it with species native to the site.

Recommendations

P1 That public land in the study area (other than land exempted from mining under the *Mines Act 1958*) continue to be available for exploration and extraction of 'gold', 'minerals', 'petroleum', and 'stone', subject to the principles and guidelines set out above.

P2 That the following area, shown on Map 12, be temporarily reserved for mineral and stone production:

Eldorado dredge tailings: an area of 92 ha adjacent to the northern boundary of the Township of Eldorado, Parish of Byawatha. Reclamation of worked areas should aim at enhancing the conservation and recreation values. The area should be included in the adjacent proposed multi-purpose park (A3) when the extraction operations are completed.

P3 That the following area, shown on Map 13, be reserved for stone production: 21 ha approximately, between allotments 9A and 25A (no section) Parish of Myrree. The southern boundary of this reserve is a surveyed road alignment in approximately the position shown on the map (see recommendation Q11).

Specific reference is made to certain current 'stone' extraction operations in the following recommendations:

- A Parks: A3 (f), (g); A4 (f)
- H Bushland Reserves: H4
- J Streamside Reserves: J14
- S Uncommitted: S1.

Q. UTILITIES AND SURVEY

Many utilities occupy public land. They include roads, pipelines, powerlines, power stations, hospitals, churches, public halls, shire offices, and depots, garbage depots, sanitary depots, cemeteries and sewerage treatment works. These recommendations do not specifically refer to many of the small areas used for the purposes listed above, as no change of use is proposed. It is intended that for such areas existing legal uses and tenure should continue.

It is not possible at present to provide for future requirements of land for survey and utilities, in the absence of firm planning proposals accompanied by the necessary detailed information. The use of land for these purposes will need to be considered when particular projects are firmly proposed. The various recommendations in the report are not intended to preclude such use of the land, and would be subject to review at the appropriate time.

Council believes that government agencies concerned with provision and installation of communication equipment, transmission lines, pumped storage sites, power stations, port facilities, pipelines, roads, etc., should be requested to submit to the Council during the early planning stages any major proposals that would involve occupation agreements or the setting aside of sites on public land. This would assist in achieving co-ordinated planning, and perhaps avoid the necessity for costly resurveys.

Council notes that the State Electricity Commission is currently considering requirements for future transmission lines and associated facilities.

One of the proposals has been the subject of a lengthy public debate, and the route finally approved is shown approximately on Map 1 although it has not yet been accurately surveyed. This route is to carry a single-circuit 220-kV line between Dartmouth power station and Mount Beauty terminal station.

The alignment follows Rodda Creek and traverses the Eskdale Spur to Mountain Creek via a saddle west of Trappers Gap.

Other main transmission lines under consideration are:

- (a) a third 330-kV single-circuit line between Dederang and South Morang terminal stations
- (b) a third 330-kV single-circuit line between Dederang terminal station and Murray switching station on a new easement separated from the existing two lines
- (c) a single-circuit 330-kV line running from Dederang terminal station at Wodonga to a proposed new switching station at Jindera in New South Wales.

The sub-transmission lines being considered are:

- (a) a second 66-kV line from Mount Beauty terminal station via Bright to Myrtleford zone sub-station;
- (b) a second 66-kV line between Wangaratta and Wodonga zone sub-stations.

No allocation of public land in the study districts for these power lines can be made until the proposals are more specific. When such plans are complete, the Council will review the use of the land affected.

Recommendations

Roads, powerlines, pipelines, and other utilities

- Q1** That existing powerline easements continue to be used for this purpose.
- Q2** That new roads, powerlines, pipelines, and other utilities be sited to minimise disturbance to public land and protect the values associated with this land, and not impinge on public land without the agreement of the management authority, and that new pipelines and powerlines follow existing easements if possible; this may require widening some easements. (In particular the proposed gas pipeline from Melbourne to Wodonga should follow the route of the existing State Electricity Commission 66-kV sub-transmission line through the Chiltern Regional Park (A4) as shown on the maps.)
- Q3** That areas used on a temporary basis (such as garbage depots and sanitary depots) be fully rehabilitated. This should apply to sites used illegally as well as those used legally. Where the user or users are known, rehabilitation should be at their expense.
- Q4** That an area of approximately 3.5 ha, west of the Freeburgh bridge in the Parish of Bright (see Map 4) be used for a shire rubbish tip.
That an area of 3.5 ha in the gravel reserve adjacent to allotment 46A of Section 1, Parish of Whitfield be used for a Shire rubbish tip.

Fire lookouts

Fire lookouts are important links in the fire-control network.

- Q5** That a minimum area be reserved around each of the fire look-out installations on Mount Porepunkah, Mount Stanley, and Mount Pilot, which should continue to be managed by the Forests Commission.

Municipal purposes

- Q6** That the area of 6 ha in the Parish of Bright shown on the maps (see Map 14) be used for municipal purposes by the Shire of Bright.

Roads

- Q7** That a road and carriageway easement be surveyed along approximately the alignment shown on Map 13 to provide practicable access to allotments 25 and 25A, Parish of Myrree.

Hospitals

- Q8** That the area totalling 150 ha, Parish of Beechworth, continue to be used for hospital purposes, and be managed by the Mental Health Authority.

[Note:

Map 1 incorrectly included Water Supply Reserve (Beechworth WWT) on eastern boundary. Map 2 correct, does not show WWT land.]

Prisons

- Q9** That the areas totalling 435 ha, as shown on the maps, continue to be used for prison purposes, and be managed by the Department of Social Welfare.

Trigonometrical stations

The Council recognises the necessity to reserve sites in the future for new trigonometrical stations.

Q10 That the minimum area necessary for survey purposes be temporarily reserved around trigonometrical stations on public land where it would otherwise remain as unreserved Crown land and, where other forms of public land tenure apply, that the Department of Crown Lands and Survey have the right to occupy a minimum area around each station and provide lines of sight.

Other utility areas

Q11 That for areas that are at present reserved and used for utility purposes such as public buildings, municipal depots, cemeteries, schools, etc., existing legal uses and tenure continue.

but in relation to land that is apparently surplus to requirements, an assessment of public land values be undertaken and, following appropriate consultation, these areas be considered for re-categorisation by Environment Conservation Council, land exchange or disposal [added by Order in Council 10/3/1999]

R. MILITARY TRAINING

The Council is of the opinion that military activities on public land should be subject to the following conditions.

- (a) The types of activities, and their timing and location, should be subject to agreement between the Army and the managing authority, and the other relevant authorities such as the Soil Conservation Authority.
- (b) The training activities should be carried out under conditions specified by the managing and relevant authorities to minimise any detrimental effects.
- (c) The Forests Commission should be consulted (for fire-protection purposes) with respect to training activities in protected forest.

Military training activities should not occur in reference areas, and only under special circumstances (and special controls) in parks and other recreation and conservation areas. The Council has recommended that certain specified military training activities be permitted in the Mount Pilot Multi-purpose Park.

S. UNCOMMITTED LAND

In planning for balanced land use, known resources are allocated to meet known or predicted demands. The Council is aware that many changes in demand cannot be foreseen, and that the value of resources to the community will inevitably change. Similarly, knowledge of resources will change as exploration, research, and technology progress. For these reasons, it is desirable that planning be reviewed periodically, and it must be expected that resources will be reallocated or adapted to meet changed demands. In addition, to satisfy such future requirements, it is desirable that land not be committed unnecessarily to relatively inflexible forms of land use. The Council therefore considers it necessary to recommend that substantial areas of public land remain uncommitted to any primary use at this stage.

Land classed as uncommitted includes:

- areas that, although not needed to satisfy any known demand are retained to meet future demands as yet undefined
- land known to have a high capability to satisfy one or more particular demands, but not at present committed to any one use, as foreseeable requirements can readily be met from other areas
- areas on which further study is required to determine the capability of the land to satisfy particular present or future demands.

Uncommitted land is to be securely retained as public land, although changes in its status may be required if these are recommended following a review by this Council. It may be used to satisfy present needs, provided this does not cause changes that would be difficult to reverse.

The Council wishes to emphasise that sufficient resources should be made available to the managing authorities to enable careful management of uncommitted land. Funds and personnel are essential for conservation of specific features and values, for protection of the land and adjacent areas from soil erosion, wildfire, vermin and noxious weeds, and for silvicultural treatment of forests.

The boundaries of this and other study areas are arbitrary and the Council is aware that some review of its recommendations for uncommitted land near the southern boundary could be warranted after the studies of the adjoining Alpine study area are completed and recommendations for that area are made.

Recommendations

S1 That the area of 258 000 ha described in the schedule below and shown on the maps, be used to:

- (a) maintain the capability of the land to meet future demands
- (b) to produce those goods and services required by the community (such as forest produce, grazing, and military training) that can be supplied without seriously reducing the long-term ability of the land to meet future demands

that

- (c) the special features and values listed below be protected and that the land be Crown land withheld from sale and be protected forest under the provisions of the *Forests Act 1958*.

(See Wilderness SI B14, Rivers and Streams SI B8, B9, B10 which impact on this area)

Schedule of small blocks included in S1 above:

- 1.9 ha north of allotment 7A of section 1A, Parish of Wyeboon
- 8 ha near allotment 1A of section 42, Parish of Moyhu
- 5.6 ha adjoining allotment 1 of section 28, Parish of Greta
- 1 ha adjoining allotments 1 and 3 of section 26, Parish of Greta
- 5 ha adjoining allotment 14 of section 4, Parish of Carboor
- 1.6 ha, being the water reserve adjoining allotment 3C of section 17, Parish of Laceby
- 2 ha adjoining allotment 10 of section 16, Parish of Carboor
- 1.2 ha adjoining allotments 97 and 97A, Parish of Whorouly
- 2.7 ha adjoining allotment 2F of section 49, Parish of Moyhu (sufficient land should be excised from this block to provide a title for the existing house)
- 1.6 ha west of allotment 56B, Parish of Myrree
- 2.4 ha in the north-west corner of allotment 10 of section 4, adjacent to allotment 8A of section 12, Parish of Beethang
- 2.3 ha adjoining allotment 1A of section D, Parish of Gundowring
- 2 ha east of allotment 8 of section 30, Parish of Barnawartha North
- 2 ha adjoining allotment 7 of section 12, Parish of Everton
- 2.7 ha adjoining allotment 4 of section 15A, Parish of Carraragarmungee
- 2 ha adjoining allotment 2 of section D, Parish of Murmungee
- 2 ha adjoining allotment 1 of section C, Parish of Murmungee
- 0.1 ha in allotment 3 of section 10, Parish of Stanley
- 0.4 ha west of allotment 14 of section X, Township of Stanley
- 0.3 ha between allotments 2 and 13 of section B1 Township of Stanley
- 1 ha between allotments 3 and 3B of section F1 Parish of Stanley
- 16 ha, being allotments 7A, 7B, 7C, 7D, and 7E, Parish of Barwidgee
- 13 ha adjoining allotment 13 of section 13, Parish of Beethang
- 1.5 ha adjoining allotment 100F Parish of Oxley
- 0.5 ha between allotments 2A, and 2C of section IA, Parish of Porepukah
- 1 ha adjoining allotment 8A of section A, Parish of Carraragarmungee
- 0.7 ha adjoining allotment 1 of section 10, Parish of Woorragee
- 6.0 ha, comprising allotment 9 of section 3A and areas east of allotment 3 of section 4, Parish of Chiltern

Note: Areas are approximate.

T. OTHER RESERVES AND PUBLIC LAND

Some small areas of public land in the study area that are used for various purposes such as water, grazing, camping, and so on have not been specifically mentioned in these recommendations.

Others (both reserved and unreserved) receive little active use at present even though they may once have been reserved for some specific purpose. These areas are sometimes cleared, and although their present value for recreation or conservation is limited, they may have considerable value in the future for as-yet-unknown public purposes.

The Council intends that existing legal uses and tenure of these various small areas of public land should continue, and where the land is not currently used for any particular purpose, that they be used in a way that will not preclude their commitment in the future to some specific public use.

Recommendations

T1 That for small areas of public land not specifically mentioned in these recommendations, existing legal uses and tenure continue

and that, where the land is not used for a specific purpose at present, such areas be used in a way that will not preclude their reservation in the future for as-yet-unknown public purposes and that they be managed as if they were uncommitted land.

but in relation to land that is apparently surplus to requirements, an assessment of public land values be undertaken and, following appropriate consultation, these areas be considered for re-categorisation by Environment Conservation Council, land exchange or disposal [added by Order in Council 10/3/1999]