PROPOSED RECOMMENDATIONS

NORTH-EASTERN STUDY AREA
DISTRICTS 3, 4 and 5

LAND CONSERVATION COUNCIL, VICTORIA
MELBOURNE, JANUARY, 1976

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INTRODUCTION

The publication of proposed recommendations for the North-Eastern Study Area Districts 3, 4, and 5 is the second of the steps the Land Conservation Council takes to "carry out investigations and make recommendations to the Minister with respect to the use of public land in order to provide for the balanced use of land in Victoria" (*Land Conservation Act* 1970).

Procedures

The first step was the publication of the descriptive report on the study area on 5th February, 1975. In the following 60 days, the Council received submissions on the future uses of the public land from 241 organizations and individuals, representing a wide range of interests. After considering the submissions and visiting the study area, the Council has prepared these proposed recommendations. These will be distributed to all who made submissions, and their publication will be followed by another 60-day period for further submissions. After this the Council will prepare final recommendations for presentation to the Minister and Parliament.

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, at a scale of 1: 250,000, covers the whole study area, and gives a broad view of the recommendations. Maps 2 and 3, which cover parts of the study area at the scale 1: 100,000, show some of the recommendations (particularly those for softwood production) in greater detail. Maps 4, 5, and 6 are detailed plans of particular recommendations that could not adequately be defined on the other maps or in the text. Maps showing the boundaries of all the areas subject to recommendations in greater detail are held by the Land Conservation Council.

Land uses

Table 1 summarizes the proposed recommendations in terms of the major forms of use. It is important to realize that for each primary use there are a number of compatible secondary uses. In addition to stating 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 State and regional 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 outstanding landscape values of the north-east have also been considered by the Council, and several substantial scenic reserves have been recommended.

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 Parks	34 200	4	8
Regional Parks	7 100	<1	2
Reference Areas	4 900	1	1
Hardwood Production	10 600	1	2
Softwood Production	32 000	4	8
Forest Area	26 600	3	6
Bushland Reserves	1 200	<1	<1
Education Areas	1 730	<1	<1
Scenic Reserves	4 300	<1	1
Uncommitted	258 000	31	61

All other land uses collectively make up the balance. Figures are rounded.

Where a given area of land is subject to demands from competing uses, 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 the demands upon land. 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, since land use should be reviewed periodically as community needs and technology change.

GENERAL RECOMMENDATIONS

These recommendations qualify those in the body of the text. The Council recommends that :

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

II. 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 *Forest Act* 1958.

In its previous recommendations the Council proposed certain additional arrangements for protecting the public land from fire. These arrangements have now been incorporated into an amendment to the *Forest 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 not only *State forests* and *national parks*, but also *protected public land*, from fire ; although, in *national parks* and *protected public lands*, fire prevention works may be undertaken only with the agreement of the managing authority or as determined by the Governor-in-Council.

In *State forest*, which comprises *reserved forest* and *protected forest* as defined in the *Forest Act* 1958, the Forests Commission is also responsible for the control and management of the vegetation.

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

Our knowledge of the distribution and ecology of plants and animals and other features is very imperfect and there must be many places in Victoria where special values are still unrecognized and for which no special provision can be made in present planning.

IV. As the boundaries of many of the areas referred to in the recommendations have not been precisely surveyed, they may be subject to minor modification, road excisions, and other adjustments that may become necessary.

V. Where areas of public land are not specifically referred to in these recommendations, present legal uses and tenures continue.

VI. 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.

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. If these resources are not provided, the Council's recommendations cannot be effectively implemented. There is an urgent need to make additional field staff and finance available, particularly to the National Parks Service. The Council recommends 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. It recognizes that in some cases existing legislation will have to be amended in order to effectively implement the recommendations in this volume.

Note : The Council's investigations were under way when the status of the former Shire of Wodonga was changed to a Rural City. Public land in the Shire, including a substantial part of the Baranduda Range, was described in the initial report and recommendations concerning this land in the Rural City of Wodonga have been included in this publication.

A. PARKS

The number of people participating in recreation activities in natural surroundings is increasing rapidly, and the Council believes that participation will continue to increase. However, the area of natural land available for these activities is decreasing and it is essential to allocate land to them now, before alienation and clearing further reduce the resources available.

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, the main differences arising from variation in size and content and 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 a park is created. Such definitions will help planners, managers, and users of parks.

It is necessary to establish the aims of management of 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 and should include the identification and strict protection of significant ecological systems as well as the development and use of manipulative techniques to maintain or enhance special values associated with flora and fauna. Special care will be required in the location and management of areas zoned for intensive recreation 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 nation-wide significance outlined in the classification.

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 for 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 facilities 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. Wilderness zones, which are large undisturbed tracts of land used for solitude and primitive unconfined forms of recreation could be within a national park. It is envisaged that Victoria would contain only a few national parks.

State park

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

State parks should include samples of each major land type not already represented in national parks. 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.

Regional park

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

These parks would be intensively developed for passive recreation such as picnicking and walking for pleasure and could include reasonable vehicular access. Although natural beauty would enhance their value, proximity 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

That the land (26 800 ha) shown on the maps be used to :

(*a*) provide opportunities for recreational and educational experiences related to enjoying and understanding natural environments

(*b*) conserve and protect the natural ecosystems

(*c*) supply water and protect catchments

and that

(*d*) existing grazing licences be cancelled

(*e*) no further ski lifts or tows to 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 the area be a national park, managed by the National Parks Service.

The park is a large area of national significance as it has outstanding scenic, recreation, and nature conservation values and includes samples of several land types.

The area 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 are predominant.

The locality has a long history of conservation and recreation.

State parks

A2 Wabonga Plateau

That the land (19 200 ha) shown on the maps be used to :

(*a*) provide opportunities for recreational and educational experiences related to enjoying and understanding natural environments

(*b*) conserve and protect the natural ecosystems

(*c*) supply water and protect catchments

and that

(*d*) emphasis be placed on the conservation of the park's rich flora

(*e*) the experimental areas of pine trees be eventually removed

and that it be permanently reserved under section 14 of the *Land Act* 1958, and managed by the National Parks Service.

The Council recognizes that the boundary of the study area is arbitrary and, having given consideration to the land in the Alpine study area adjacent to the North-east study area, will consider extending the Wabonga State Park when recommendations are made for the Alpine study area (shown as red hachure on map 1).

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 ; smaller areas of messmate and alpine ash forest occur in the east and south of the park.

A3 Mount Pilot

That the land (15 000 ha) shown on the maps be used to :

(*a*) provide opportunities for recreational and education experience related to enjoying and understanding natural environments

(*b*) conserve and protect the natural ecosystems

(*c*) supply water and protect catchments

and that

(*d*) emphasis be given to preventing soil erosion, and protecting natural vegetation and wildlife

(*e*) honey production be permitted in the park west of the main Chiltern–Beechworth road

(*f*) the Skeleton Hill stone quarry, and 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 logging that is compatible with (*d*) above continue at the present level, but be phased out by 1980

(*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 that :

(i) the activities be restricted to small groups and exclude the use of heavy vehicles

(ii) other conditions as set out in section R

and that it be permanently reserved under section 14 of the *Land Act* 1958, managed by the National Parks Service.

The park comprises most of the public land in the Pilot Range, including Mount Pilot and the 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. The area south of Chiltern consists partly of metamorphic rocks. The Pilot Range 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 Chiltern forest, and portion of the Pilot Range east of the Chiltern–Beechworth road has high conservation and recreational values. Scenic values are especially high. The area supports an interesting fauna, including significant species such as the peregrine falcon and the turquoise parrot.

The Reedy Creek and Eldorado area has high scenic and recreational values and important historical associations. High soil erosion hazard reduces the capability of the area to support intensive recreation.

Regional parks

A4 Chiltern

That the land (2 100 ha) shown on the maps be used to:

(*a*) provide opportunities for open-space recreation and education, related to the enjoyment and understanding of natural environments for a large number of people

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

and that

(*c*) emphasis be placed on the rich mammal and bird fauna, and protection of the turquoise parrot, peregrine falcon, tuan, and squirrel glider

(*d*) honey production be permitted in the park

(*e*) production of poles, sleepers, fencing material, and other minor forest produce be permitted where this does not conflict with (*a*) and (*b*)

and that it be permanently reserved under section 14 of the *Land Act* 1958 and managed by the Forests Commission.

This 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.

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

(*a*) An area of 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.

(*e*) An area of 13 ha east of allotments 9 and 10 of section A1, Parish of Chiltern

(*f*) An area of 11 ha between allotments 4 and 5 of section A2, Parish of Chiltern.

Note : Areas are approximate.

A5 Baranduda Range

That the land (3 100 ha) shown on the maps be used to :

(*a*) provide opportunities for open-space recreation and education, related to the enjoyment and understanding of natural environments for a large number of people

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

and that it be permanently reserved under section 14 of the *Land Act* 1958 and managed by the National Parks Service.

The park is 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 Yackandandah.

The side slopes and 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. There is a moderate soil erosion hazard.

A6 Beechworth

That the land (2 000 ha approximately) shown on the maps be used to :

(*a*) provide opportunities for open-space recreation and education, related to the enjoyment and understanding of natural environments, for large numbers of people

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

and that

(*c*) special prescriptions for fire protection be drawn up for part of this park because of its location (Item (a) in the description below and indicated on map 2).

and that it be permanently reserved under section 14 of the *Land Act* 1958 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 Powder Magazine, the Gorge Drive, Ingrams Rock, Flat Rock, Telegraph Rock, the Cheese Rings, and Woolshed Falls. It also provides 700 ha of attractive bushland 6 km south-east of the town, which has suitable terrain to provide recreational opportunities for a large number of people.

The hilly area is the source for Six Mile, Three Mile, Two Mile, Silver, and Deep Creeks. Altitude rises from 640 m in the west to 900 m in the east. The forest types include narrow-leaf peppermint open forest III with broad-leaf peppermint and long-leaf box open forest II on the dry northern and western slopes.

The southern boundary is the Murmungee basin escarpment and offers views across the basin. A proposed softwood plantation adjoins the park, and although not included in the park, would add diversity to the area and provide additional opportunities for open-space recreation. Thus it is recommended that the management of this part of the Dingle Range plantation be in sympathy with the adjoining Beechworth regional park. Another part of the park is an area of bushland just north of the township that abuts the present recreational reserve. A small part is used as a rifle range. The area supports long-leaf box open forest I and II and black cypress pine.

Detailed descriptions of areas are :

(*a*) Public land in the south-eastern corner of the Parish of Beechworth, and adjacent, in the Parishes of Stanley and Murmungee, as far south as the Six Mile Creek road

(*b*) All water frontages and other vacant crown land along Hurdle, Deep, Silver, and Spring Creeks and along Two Mile, Upper Three Mile, and Six Mile Creeks as far downstream as the Beechworth–Murmungee road, in the Parish and township of Beechworth

(*c*) Allotments 23, 23A and 24 of section A6, Parish of Beechworth

(*d*) Allotment 30B of section U, township of Beechworth

(*e*) The 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–Stanley 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, Parish of Beechworth

(*j*) All public land water frontages and other vacant Crown land along Sheep Station Creek in the Parish 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 to the north of township, section K, Parish of Beechworth

(*p*) 75 ha, being allotments 4 and 10, allotment 8A, the rifle range west of allotment 8A, the Hospital Reserve (Gaz. 1894/4417), and the Hospital Extension (Gaz. 1907/2922), Section H, Parish of Beechworth

Note : 1. Areas are approximate only

2. The park does not include the Lake Sambell Public Purposes Reserve (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 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.

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 utilization 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 the status of these areas and for the establishment of an advisory committee 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 our current knowledge of the land types in the study area, and additional areas will be needed as better information on ecology and land use problems become available. The best basis for selecting reference areas are land systems surveys, in which the features of climate, geology, topography, soils, and native vegetation are integrated. At present, such surveys cover only part of the study area.

RECOMMENDATIONS

B1–B6 (*a*) That the areas listed below and shown on the map 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*) That each reference area be surrounded by a buffer and the authority managing the 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 Mt. Buffalo (940 ha)

Upper Devonian granite ; plateau and steep slope. 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. Elevation 400 m to 1 480 m. Approximate annual rainfall 1 100 mm to 1 500 mm. Land system : Buffalo. To be managed by the National Parks Service.

B2 Drum Top (440 ha)

Upper Devonian rhyodacite ; plateau and steep slopes. Open forest II broad-leaf peppermint, open forest III narrow-leaf peppermint. Elevation 600 m to 820 m. Approximate annual rainfall 1 520 mm. Land system : Drum Top. To be managed by the Department of Crown Lands and Survey.

B3 King (880 ha)

Upper Devonian rhyodacite, Carboniferous sedimentary rock, Tertiary volcanics ; hill top and slopes. Open forest III narrow-leaf peppermint, open forest II broad-leaf peppermint. Elevation 440 m to 999 m. Approximate annual rainfall 1 520 mm. Land systems : King, Wabonga, and Mahaikah. To be managed by the Department of Crown Lands and Survey.

B4 Pilot Range (880 ha)

Devonian granite ; plateau and slopes. Open forest I and II long-leaf box, open forest II broad-leaf peppermint, open forest I black cypress pine. Elevation 300 m to 500 m. Average annual rainfall 750–800 mm. Land system : Barambogie. To be managed by the National Parks Service.

B5 Black Range (1 130 ha)

Ordovician sedimentary rocks ; dissected. Open forest III narrow-leaf peppermint, open forest II broad-leaf peppermint and long-leaf box, open forest I snow gum. Elevation 300 m to 1 000 m. Average annual rainfall 1 100–1 300 mm. Land systems: Bowman and Tawonga Wermatong. To be managed by the Department of Crown Lands and Survey.

B6 Mitta Mitta (630 ha)

Ordovician sediments, hillwash and colluvium ; broad basin with moderately steep marginal slopes. Open forest III narrow-leaf peppermint, and open forest II broad-leaf peppermint. Elevation 300–600 m. Average annual rainfall approximately 1 000 mm. Land system : Tawonga, Baranduda and Murray. To be 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. While some forms of land use do not have detrimental effects on habitat it is necessary to set some areas aside specifically for conserving fish and wildlife, and for developing wildlife conservation techniques.

These areas are selected firstly for conservation of species that are harvested or directly utilized by the community. Secondly, they may contain the habitat of endangered species. Thirdly, they may include areas that have particular wildlife values (such as specialized breeding grounds), a high species diversity, or educational or scientific interest.

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 recognized.

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 actively collaborate with the Fisheries and Wildlife Division regarding these aspects of wildlife conservation.

It is recognized 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 district includes the lower reaches of the catchments of Lake William Hovell and Lake Buffalo, both of which regulate river levels for users down stream, 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 district, while the cities of Wangaratta and Wodonga and the towns of Tallangatta and Bright obtain water supplies from main rivers flowing through the district.

Current management

None of the catchments in the district are used solely for water production. Hardwood or softwood timber harvesting, recreation, and other forest uses are carried out on most public land areas within catchments, 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.

Council considers that sterilization of drinking water is inevitable, even with optimum land use in catchments.

Land use planning

One catchment (that of Lake Hume) in the study district has been proclaimed under section 22(1) of the *Soil Conservation and Land Utilization 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 district 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

The Council—recognizing 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—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 realizes 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, whereas in another its effect may be profound.

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 Utilization Act* 1958 and also under section 5(1)(b) of the *Land Conservation Act* 1970.

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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. However, public authorities managing land within a proclaimed catchment should consult and co-operate 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.

Treatment

The Council is aware that it is possible to improve the quality of water by treatment at a cost. It must, however, be recognized 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. Thus it is vital that the quantity and timing of yield be safeguarded and that the catchment be protected from soil erosion. It is recognized that :

(*a*) Although yield per unit area from dry catchments is relatively low, the environment of such catchments is particularly susceptible to disturbance. In this case if natural vegetation is disturbed, even in a minor way, turbidity of water can occur as well as increased salinity combined with a general decline of the environment.

(*b*) Yield per unit area from wet catchments is high and in general the environment is moderately resistant to disturbance. It is possible to permit some alteration of the soil and vegetation without impairing the quality, frequency, or quantity of the water yield.

Within North-Eastern Study Area Districts 3, 4 and 5, four broad classes of land within water catchments can be recognized. These are :

(*a*) sub-alpine, e.g. Mt. Buffalo

(*b*) mountain, e.g. Black Range

(*c*) wet foothill, e.g. Mt. Big Ben

(*d*) dry foothill, e.g. Pilot Range

The 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 or forbidden. For example, activities such as hiking, orienteering, and horse-riding may be permitted in (*b*) and (*c*) and only to a very limited extent in (*a*) and (*d*).

The implementation of proper management of land uses within catchments is of prime importance, 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 water catchment values such as water yield, quality, and flow regime are of prime concern. The necessity for research to provide guidelines for such management is recognized.

Where multiple land use in catchments is increasing in intensity, water supply authorities should provide, at the earliest possible time, facilities for sterilization of all drinking water.

Additional water needs

Additional water needs for domestic purposes and for stock and irrigation may require the construction of additional water storages. Specific areas cannot 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. Once a land use determination has been made, the storage areas, diversion works, and associated facilities required for the distribution and supply of water—together with buffer strips as defined in the land use determination around diversion works and storages and other allotments as specified—be used :

(*a*) for water supply purposes

(*b*) for 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 14 of the *Land Act* 1958 for water supply purposes, and be managed by the water supply authority named.

Note : (i) The buffer should be of sufficient width 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) Particular aspects of the management of activities permitted on the buffer could be delegated by the water supply authority to other public authorities as appropriate.

(iii) In cases where the above recommendations cause the control and management of an area to change from a water supply authority to a land management authority, and where this results in a loss of income to the water supply authority, 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
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. However, 75 per cent. of the timber milled comes from the mountain areas south of the districts. The main sawlog species is narrow-leaf peppermint, but others include alpine ash and messmate.

Historically nearly all of the forested lands in the study districts have been exploited for timber.

As traditionally practised, hardwood production has been 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 to many other uses.

However, as the community increasingly places constraints on timber production in order to protect floral, faunal, recreational, water catchment, and landscape values, so the area available for timber production decreases. Logging is not permitted in reference areas, nor in many parks. As a consequence it is necessary to increase the productivity of the areas to be used for timber production, and their capability for non-timber uses may decline.

The Council believes that most of Victoria's timber requirements could be produced from intensively managed forests covering a much smaller area than the present extensively managed forests. Intensive management is the accepted practice with softwood production and other forms of primary production; in the case of hardwood production 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 fertilizers, and extensive clearing would be permitted. 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. Council realizes 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. However, constraints are imposed and the Council defines areas where particular non-timber values must be protected.

RECOMMENDATIONS

E1–2 That the areas listed below and shown on the maps be used :

(*a*) primarily to produce hardwood timber in a manner having due regard for landscape values as seen from the main roads outside the forest

and 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 *Forest Act* 1958

(*c*) water production values be recognized

and that the areas remain or become Reserved Forest.

E1 Upper Middle Creek (2 000 ha approx.)

E2 Mount Big Ben (8 600 ha approx.)

The landscape value of the forested escarpment as viewed from the Yackandandah–Dederang road should be maintained.

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 plantations.

Industry and Plantation Requirements

Ovens zone

The plantation resource within the Ovens zone—centred around Myrtleford, Beechworth, and Bright—is 15 400 ha, including the area being planted in 1975. 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 groundwood 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 Company of long-term supplies of pulpwood. The present supply commitment is 35 400 m^3 of pulpwood per annum and this rises to 63 720 m^3 per annum by 1991. Current sawlog allocations total 85 000 m^3 per annum. Sufficient area has been recommended for new softwood plantations to establish 4 875 ha net in the next 10 years (to 1985). This meets 75 per cent. of the Commission's requirements on public land.

Benalla–Mansfield zone (and Central zone)

Planning for this development zone is carried out in conjunction with that for the Central zone. The planned plantation area is 60 000 ha.

Softwood plantings in the combined zones are planned to supplement timber from hardwood regrowth forests and support a large integrated industry in the area. No large-scale timber commitments to industry have been made.

To December 1974, approximately 10 600 ha net of plantation had been planted, leaving a requirement for a further 49 400 ha. 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 met this requirement in full, and an area sufficient to establish 7 400 ha net of plantation was delineated. This included land purchased by the Forests Commission.

In the proposed recommendations for the Melbourne study area the Council has recommended allocations of enough land to establish a further 3 950 ha to 1983. The combined area (11 350 ha) would 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.

Sufficient areas have been recommended for the proposed plantings in the 2 years 1984 and 1985 (approximately 500 ha net).

Planning Period

Provision is made in these recommendations for land for planting softwoods in the area until 1985, thus allowing a planning period of 10 years for the establishment of softwoods. However, finance for softwood plantings depends to some extent on the Commonwealth–State Softwood Forestry Agreement, which is scheduled for review in 1976 and possibly again in 1981. 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 10-year planning period, and not provided for in the recommendations (approximately 1 625 ha), should be met by purchase of private property. Funds should be made available to the Forests Commission for the purchase of suitable alienated 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 of large plantations of softwoods 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 1 400 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 unsuitable land 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 that the amenity and recreational values of these areas be protected. Any utilization, 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 a minimum width of 40 m from each bank along minor streams and 80 m from each bank along major streams, and such areas should be maintained 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 clothed with 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, a visually diverse environment should be maintained by amenity plantings (preferably of native and local species). Where plantations are to be established adjacent to private property, consideration should be given to reasonable requests by the landholders for the retention of native vegetation along boundaries.

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

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 softwood planting.

RECOMMENDATIONS

F1 That the present plantations of 16 400 hectares gross as indicated on the map continue to be used for the production of softwood products and the provision of other goods and services compatible with the primary use, as well as providing opportunities for education and recreation, and that they be reserved forest.

F2–F19 (Except F18) That the areas indicated on the map and listed below be used for softwood production in accordance with the above Plantation Planning Guidelines and that they be reserved forest.

Ovens plantation zone

F2 Yackandandah Creek

Within the area of 170 ha indicated on the map, an area of 170 ha net be planted to softwoods.

F3 Wombat Gully

Within the area of 290 ha indicated on the map, an area of 210 ha net be planted to softwoods.

F4 Hillsborough

Within the area of 70 ha indicated on the map, an area of 40 ha net be planted to softwoods. Historic and scenic values associated with the Hillsborough township should be conserved.

F5 Mount Stanley Road

Within the area of 190 ha indicated on the map, an area of 125 ha net be planted to softwoods.

F6 Circular Creek

Within the area of 80 ha indicated on the map, an area of 60 ha net be planted to softwoods.

F7 Bruarong

Within the area of 240 ha indicated on the map, an area of 160 ha net be planted to softwoods. Historic and scenic values associated with the old township site of Bruarong should be conserved.

F8 Dingle Range

Within the area of 650 ha indicated on the map, an area of 565 ha net be planted to softwoods.

F9 Basin Creek

Within the area of 470 ha indicated on the map, an area of 340 ha net be planted to softwoods.

F10 Granite Creek

Within the area of 210 ha indicated on the map, an area of 80 ha net be planted to softwoods.

F11 Running Creek

Within the area of 625 ha indicated on the map, an area of 510 ha net be planted to softwoods.

F12 Smarts Creek

Within the area of 190 ha indicated on the map, an area of 110 ha net be planted to softwoods.

F13 Morgans Creek

Within the area of 810 ha indicated on the map, an area of 785 ha net be planted to softwoods.

F14 Long Corner Creek

Within the area of 110 ha indicated on the map, an area of 110 ha net be planted to softwoods.

F15 Bread and Butter Creek

Within the area of 1 500 ha indicated on the map, an area of 1 100 ha net be planted to softwoods.

F16 Mayday Creek

Within the area of 220 ha indicated on the map, an area of 145 ha net be planted to softwoods.

F17 Emu Creek

Within the area of 440 ha indicated on the map, an area of 265 ha net be planted to softwoods.

F18 Cropper Creek

Within the area of 125 ha indicated on the map, an area of 100 ha net be planted to softwoods. This area consists of three experimental catchments designed to investigate the effect of softwood establishment on stream flow.

The Council recommends that this area be temporarily reserved for Hydrological Research under section 14 of the *Land Act* 1958, and that it be managed by the Forests Commission.

Benalla–Mansfield Plantation Zone

F19 *Toombullup*

Within the area of 1 000 ha indicated on the map, an area of 500 ha net be planted to softwoods.

G. FOREST AREA

When making recommendations on land for softwood plantations, the Council has recognized that their establishment constitutes a major change from any natural ecosystems they replace. Further, it realizes that softwood production is a long-term endeavour and that restoration of softwood 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 fire protection of the softwood resource and therefore must also be managed for this purpose. Such land has been designated forest area.

RECOMMENDATIONS

G1 That the area of 32 000 ha indicated on the map 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 areas lie within water supply catchments

and that

1. the landscape values associated with the natural vegetation of the Happy Valley–Ovens divide west of Eurobin, and the Murmungee Basin, be protected

2. the historic and recreational values of the Wallaby Mine area be protected

and that the areas be reserved forest.

H. BUSHLAND RESERVES

These pieces of land, relatively small and frequently isolated, carry remnants of native vegetation providing diversity in predominantly agricultural regions.

RECOMMENDATIONS

H1–H39 That the areas indicated on the maps and described below be used to :

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

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

that they be permanently reserved under section 14 of the *Land Act* 1958 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.

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

H3 4·5 ha adjoining allotment 7, Parish of Myrrhee.

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 adjacent to allotment 6A, Parish of Everton.

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

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 21 ha adjoining allotment 18 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 allotments 15 and 16, Parish of Woorragee North.

H19 1 ha adjoining allotments 3 and 4 of section N1, Parish of Yackandandah.

H20 2 ha between allotments 10 and 11 of section A, Parish of Woorragee North.

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 north-east 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 the east of allotment 17 of section 17, Parish of Stanley, and extending into the township of Stanley ; to be managed by the Forests Commission.

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 Myrtleford ; 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.

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 20 ha adjoining allotment 10 of section 8, Parish of Mullindolingong.

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

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

Note : Areas are approximate.

I. PUBLIC LAND WATER FRONTAGES AND RIVER IMPROVEMENT

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 water 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. In both cases the land is under the control of the Department of Crown Lands and Survey, while the water is under the control of the State Rivers and Water Supply Commission.

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

Forest produce on public-land water frontages is under the control of the Forests Commission except where a committee of management has been formed. Public-land frontages alongside artificial water storages and aqueducts are often under the control of the management authority that controls the water (e.g. State Rivers and Water Supply Commission).

Public-land water frontages are often held under licence by adjoining occupiers 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 due to 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 term.

These licensed river frontages are, however, public land and they are often valuable for low-intensity 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. Unlicensed public-land frontages are normally fenced off from adjacent freehold land. There is no obligation for a landholder to provide access through freehold land to a public-land water 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 the public-land water frontages have been progressively cleared of native vegetation. Some frontages with special value for uses such as protection of water supplies, recreation, or nature conservation, have been designated as a water, streamside, flora and fauna or bushland reserves, as appropriate in the particular case.

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, elsewhere in these recommendations, have been set aside 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

I.1 That the public land defined above

(*a*) be used to :

(i) protect adjoining land from erosion due to flooding 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 of fires, use of motor vehicles and motorized 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 Utilization 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

and that

(*c*) On public-land water frontages the Department of Crown Lands and Survey be consulted prior to the proclamation of roads or the construction of roadways or the creation of buildings

and that

(*d*) (i) It be permanently reserved under section 14 of the *Land Act* 1958 as a water frontage reserve ;

(ii) Where it is adjacent to or within a proposed national park, State park, regional park, reserved forest, bushland reserve, streamside reserve, scenic reserve, flora and fauna reserve, 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

and that

(*e*) the relevant provisions of the *Water Act* 1958 and the *Forest Act* 1958 continue to apply.

RIVER IMPROVEMENT

River Improvement Trusts have been constituted under the *River Improvement Act* 1958 for sections of the following rivers in the study area :

Mitta Mitta River
Kiewa River
Ovens River
King River
Fifteen Mile Creek

River improvement works in these rivers are designed to maintain the carrying capacity for water supply or drainage purposes, to protect adjoining land from flooding and erosion, to maintain the security of structures such as bridges on the flood plain, and to prevent siltation of the lower reaches by control of upstream erosion.

The works carried out include :

* erosion-prevention works on the banks such as construction of wire-mesh fencing, planting of trees, the use of various materials for bank protection, and the felling of trees that may be undermined to prevent loss of bank material
* clearing of waterways by removal of snags within the bed of the channel to maintain or improve discharge capacity
* realigning and altering a stream by the use of wire-mesh fencing and log or concrete barriers.

This work is often made necessary by the changes that Man has made to land use in the river catchments and on the flood plain. The following changes have generally reduced the value of the rivers for nature conservation :

> Clearing of vegetation has increased run-off and reduced time of concentration of storm flows. The situation is sometimes aggravated by overgrazing and unwise cultivation in the catchment and along the river banks, permitting soil erosion and transport of sediment to the stream. Increases in urban development, with disposal of storm water directly to streams, have also altered flow regimes.
>
> Regulation of stream flow by water storages and use of streams to transport water for irrigation and domestic use also cause changes in the natural flow regime. For example, the Mitta Mitta River will be used to transport water from the Dartmouth Dam to the Hume Weir and will be required during infrequent drought periods to carry regulated flows up to bank-full capacity for several months during summer.
>
> The construction of barriers, such as road embankments and bridges, through which the river must pass, has often resulted in substantial modification of the bed and banks, but present policy is that all proposed replacement or new structures across waterways, flood plains, and depressions are referred to the State Rivers and Water Supply Commission and to the River Improvement Trust, where one is involved, for approval.

River improvement authorities, in attempting to cope with the consequences of these changes, carry out works that sometimes adversely affect landscape and nature conservation values but that sometimes ultimately enhance landscape values.

Removal of snags from the centres of wide streams damages fish habitat, but the tethering of these snags against the banks may provide alternative fish habitat as well as protecting the banks from erosion.

Realigning and regrading of eroding beds and banks often removes holes and backwaters of value as a fish habitat and for angling and swimming in a particular location. However, these operations, in preventing erosion, reduce transportation of silt.

River improvement works are sometimes aesthetically displeasing, particularly during construction and in the early stages after completion, but their ultimate aim is to prevent erosion and to allow re-establishment of vegetative cover along the stream banks. Access to the river is frequently made difficult by the construction of mesh fencing or log barriers, but works of this nature are an integral part of preventing stream erosion.

River improvement trusts are at present limited in their responsibility under the *River Improvement Act* 1958 to the stream environs within the districts under their control. They are therefore frequently able to treat only the symptoms of problems, as the causes often lie in the catchments beyond the area of their responsibility. Works that they carry out are often limited by lack of funds and frequently amount to little more than stop-gap measures. There is thus little opportunity in the design and implementation of works for consideration of the likely impact of trusts' works programmes on areas outside their districts.

The flow regimes of some rivers must of course be modified and flood plains used for agriculture, but it is appropriate to look to the principles of the natural system in seeking solutions to the problems that thus arise rather than to move further from those principles.

The Council believes that the following principles should be applied in determining the need for and design of river improvement works :

* Where problems in river management arise, the whole catchment should be considered in seeking a solution

* Works designed primarily for flood control should aim at reducing the rate of run-off of the catchment

* The degree to which minor flooding can be tolerated by the community should be determined in each case. It may often be more appropriate to take action to minimize the consequences of flooding than to attempt to prevent it

* An adequate vegetation cover should be maintained along stream frontages to stabilize the banks and to reduce the velocity of flood waters as they leave and re-enter the stream course

* Structures such as road embankments and bridges on flood plains are a variation of the natural situation and consideration should be given in their design to their effect on the flood pattern

* Works carried out within the bed and banks of a stream to change the alignment, gradient, and cross-section should be kept to the minimum necessary

* Consideration should be given in the design of works to maintaining or enhancing landscape values and the value of the stream for recreation and as a habitat for wildlife.

RECOMMENDATIONS

The Council recommends that :

I2 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 Plans for all works, other than those of a minor nature, 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 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 and the maintenance or enhancement of landscape values and the value of the stream as a habitat for wildlife and for recreation.

Note : *The abovementioned 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 been designated as streamside reserves.

Some of these blocks are already reserved either under section 14 of the *Land Act* 1958 or as reserved Forest. Others remain as unreserved Crown land, although they may be licensed for grazing. Vegetation of 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 that streamside reserves are separate and distinct from the public land water frontages described in section I of these recommendations.

RECOMMENDATIONS

J1–J22 That the areas shown on the maps and described be used to :

(*a*) provide passive recreation, such as picnicking, walking, angling, and camping, where this is permitted by the managing authority

(*b*) conserve fauna and flora

(*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

and that they be reserved under section 14 of the *Land Act* 1958 and managed by the Department of Crown Lands and Survey, except where otherwise indicated.

Responsibilities for the management of individual reserves may be delegated to committees of management, provided the objects set out above are met.

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 5 ha adjoining allotment 1B of section 26, Parish of Barnawartha North.

J7 12 ha adjoining allotment 15 of section 29, Parish of Barnawartha North.

J8 Timber reserve north of allotment 6A of section 29, Parish of Barnawartha North.

J9 Allotment 3 of section 32, in a a bend of the Murray, Parish of Barnawartha North.

J10 Timber reserve north of allotment 6 of section 32, Parish of Barnawartha North.

J11 1·4 ha allotment 1B of section K, Parish of Woorragee North.

J12 7 ha adjoining allotments 11 and 5B of section O, 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 Wyeeboo. Gravel extraction should cease.

J15 0·8 ha allotment 1A, adjoining the gravel reserve, Porepunkah, to be managed by the Forests Commission.

J16 0·9 ha allotment 17E of section 7, Parish of Porepunkah.

J17 2 ha allotment 6A of section 13, Parish of Porepunkah.

J18 7·5 ha adjoining allotment 12A of section 11, Parish of Porepunkah.

J19 2·4 ha land 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.

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.

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.

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 these roads best fulfil, for many people, their need for contact with rural environments. The Council believes that a conscious effort must be made to ensure that a number of these roads are retained in an unimproved condition and that, if necessary, upgrading be done along a new alignment, preferably on cleared land, so that the original road is preserved.

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 the planning consideration of such roads, the need to provide roadside recreation 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 of the State (State highways, tourist and forest roads, and freeways) are declared under the *Country Roads Act* 1958, and are completely under the control of the Country Roads Board (9 000 km). 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.

In order that trees and shrubs be conserved wherever possible, and the road reserves used for landscape preservation, recreation, and nature conservation as well as transport, the Council considers that the following guidelines (many of them already implemented by the Country Roads Board) should be applied.

RECOMMENDATIONS

K1 That road reserves throughout the study area continue to be used primarily for communication, transport, and access ;

and that the following guidelines be applied in order to preserve landscape, recreation, and nature conservation values.

(i) When improvements to a road are being carried out, trees and shrubs on the road 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 the section of the old road should not be sold but used as a recreation and rest area.

(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 roadside vegetation being cleared to accommodate them.

(v) Plantings of trees and shrubs native to the area should be established along roads from which all trees and shrubs have been cleared.

(vi) 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 minimum disturbance of the native vegetation, and the disturbed area should be rehabilitated where possible with vegetation native to the area.

and (vii) Weeds and vermin on roads should be controlled by means that do not conflict with the uses given above.

In addition, for unused roads, Council is of the opinion that :

(i) the clearing of native trees and shrubs other than noxious weeds should continue to be clearly prohibited in the conditions of unused-road licences

(ii) where it appears to be reasonable, a condition permitting public access to licensed unused roads should be written into unused-road licences

(iii) unused roads or easements should not be alienated unless an investigation shows that they are unlikely to have a high value for conservation or recreation, or as roads.

L. EDUCATION AREAS

Environmental education is a fundamental step in the conservation of natural resources and 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 as are found in urban and agricultural areas. One of its basic requirements is access to land.

Council, realizing 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 the educational use. 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 :

* examples of major land types in the study area
* areas of maximum diversity, preferably with natural boundaries
* areas large enough to be viable and to allow recovery of different sections as use is rotated
* proximity to other land types and a variety of land uses nearby
* reasonable vehicular access to the area
* areas in different parts of the study area
* sites selected in order to minimize fire, erosion, and pollution hazards.

No one organization 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. 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 organizations, and the land manager) should be responsible for implementing educational aspects, and for co-ordinating usage 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 is 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 reserved under section 14 of the *Land Act* 1958.

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 1 000 mm. Myrtleford–Whitfield and Bowman land systems.

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

L2 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 1 200–1 300 mm. Tawonga Wermatong land system.

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

L3 Lockhart Creek (500 ha)

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

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

L4 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 National Parks service.

M. RECREATION AND RECREATION RESERVES

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 as 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, which is simply recreation that is typically carried on outdoors, is of particular interest to Council as the public land of the study area provided important opportunities for this type of recreation. Throughout these recommendations the countless forms of outdoor recreation have been referred to in a number of ways :

* Formal recreation activities include all organized 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 organized 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 carrying 10 000 visitors or more per hectare per year 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 be available for recreational uses of some sort.

Various types of recreation have been recommended as the primary use of land in four cases :

(1) Recreation reserves, where small areas of land are developed for a particular type of recreation—often organized sports such as golf, target-shooting, horse-racing, tennis, football, and so on, or for other formalized activities such as caravan parks. (See Recommendations M4–M9.)

(2) Regional parks, where areas readily accessible from population centres are developed for intensive recreation generally of a passive nature. It is intended that these will cater for many of the activities requiring open space in pleasant surroundings and free the State and national parks to cater for the more special forms of recreation requiring relatively undisturbed environments. (See Recommendations A4–A6.)

(3) Scenic reserves, where major vantage points are developed for intensive recreation of a passive nature. (See Recommendations N1–N7.)

(4) National and State parks, where land has been set aside for the preservation and conservation of habitat, and to ensure that opportunities continue to exist for types of recreation requiring relatively undisturbed environments. (See Recommendations A1–A3.)

Apart from these special cases it has not been possible for Council to 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 recreation activities). Generally, any one activity pursued at a low level of intensity poses little threat to the environment and does not often conflict 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 recreational activities that may pose a problem for the land managers, whether now or in the future, are further discussed below.

Motorized 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 as a source of recreation in themselves, when they are driven in competitive rallies or in adverse but challenging road conditions.

Any vehicle, whether car, four-wheel-drive, or motor-bike, 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 is in excess of the physical capacity of the road, or when vehicular excess or its associated activities seriously conflict with the primary purpose for which the area is used. 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 increases on public land, 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*, and can, and do, cause extreme damage to vegetation and soils.

The demand exists for the provision of some areas of public land in order to accommodate and relocate the off-road activities of motor vehicles, particularly trail-bikes. Such areas could, for example, be in 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 is likely to 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 and with 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 organization allowing use by other groups. Others are used only occasionally and exclusively by one group.

There is an increasing tendency for user groups 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. Where camps are permitted on public land, Council believes that these should be properly located, constructed, and maintained, while recognizing that a variety of types of camp may be needed. For efficient management of camps, it may be necessary for a single organization 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, existing camps will need to be phased out or relocated by the land management authority if they 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–M9 That the areas described below and shown on the map be used for organized sports (football, etc.), horse-racing, golf, picnicking, camping, and informal recreation as permitted by the managing authority

and that they be reserved under section 14 of the *Land Act* 1958, and managed by the Department of Crown Lands and Survey :

M4 Existing recreation reserves.

M5 36 ha, being Crown land along Morses Creek from allotment 102K, Parish of Bright, in the north to the southern extremity of the township of Wandiligong.

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

M7 2 ha adjoining allotment 11B of section B5, Parish of Yackandandah.

M8 81 ha, comprising reserves on both sides of Yackandandah Creek downstream of the Myrtleford road bridge, and land adjoining allotments 11A and 11B of section B5, Parish of Yackandandah.

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

N. SCENIC RESERVES

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

RECOMMENDATIONS

N1 Powers Lookout (1 100 ha)

That the area shown on the maps be used to preserve beauty spots and lookouts overlooking the King valley, and that it be permanently reserved under section 14 of the *Land Act* 1958, and managed by the Department of Crown Lands and Survey.

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, broad-leaf peppermint open forest II (both associations—mapping units 8a and 8b), messmate open forest III, and swamp gum open forest II.

N2 Mount Stanley (2 700 ha)

That the area shown on the maps be used to preserve the lookout and the surrounding scenic landscape, especially Circular and Myrtle Creek environs.

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

(*a*) the protection of the adjacent softwood plantations

(*b*) low-intensity hardwood production

where these activities (*a* and *b*) do not conflict with maintaining the scenic and conservation values of the reserve

and that it be reserved under section 50 of the *Forests Act* 1958, and managed by the Forests Commission.

This scenic reserve includes the Mount Stanley ridge and the mount itself, and about half of the Circular and Myrtle Creek catchment.

Mount Stanley 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 mountain is itself an outstanding feature of the landscape.

The view from the Myrtle Creek road into Circular and Myrtle Creeks is of a high order and has been classified by the National Trust.

The area supports open forest III of narrow-leaf peppermint and open forest II of broad-leaf peppermint and long-leaf box.

The bulk of the reserve's hinterland carries softwood plantation.

Much of the reserve has high capabilities for recreation.

N3 Barnawatha Scenic Reserve (approximately 60 ha)

That the area shown on the maps be used to preserve a lookout overlooking the Hume Highway, Indigo Valley, and surrounding country

and that it be permanently reserved under section 14 of the *Land Act* 1958, and managed by the Department of Crown Lands and Survey.

This area is an isolated hill of approximately 365 m, located on the Hume Highway. It is semi-cleared, but does carry some white box forest. It offers extremely good views of the surrounding country.

N4 Mount Porepunkah Scenic Reserve (400 ha)

That the area shown on the maps be used to preserve a lookout and the surrounding scenic landscape of Mount Porepunkah

and that it be reserved under section 50 of the *Forests Act* 1958, and managed by the Forests Commission.

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.

N5 Tawonga Gap Scenic Reserve (approximately 50 ha)

That the area shown on the maps be used to preserve the scenic lookout and adjacent vantage points at Tawonga Gap,

and that it be permanently reserved under section 14 of the *Land Act* 1958, and managed by the Department of Crown Lands and Survey.

This scenic reserve is an intensively used lookout point on a major tourist road, providing magnificent views of Mount Bogong (particularly 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 the reserve's ridge-top location and its landscape value when viewed from elsewhere in the area.

N6–N7 That the following other scenic reserves be permanently reserved under section 14 of the *Land Act* 1958, and managed by the Department of Crown Lands and Survey.

N6 2·8 ha adjoining allotment 19A of section 1, Parish of Whitfield

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

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 emphasized, 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.

RECOMMENDATIONS

O1 That the land described in the schedule below (36 ha), 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 in the schedule be made available for agriculture in accordance with the provisions of the *Land Act* 1958.

SCHEDULE I

Parish	Location	Area (ha)
Barwidgee	Allotments 1G and 1F of section 21	1·6
Bright	Adjoining allotment 15N of section C (see Map 4)	5·5
Edi	Allotment 19B of section A	3·4
Mitta Mitta	The south-east corner of allotment 20 of section E	7·2
Wagra	In allotment 2 of section 2	6·5
Woorragee North	Adjoining allotments 1A and 1B of section B (see Map 5)	1·2
Wyeeboo	Allotment 6C of section 16	11

O2 Tobacco Research Station, Myrtleford

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 14 of the *Land Act* 1958 for this purpose, and managed by the Department of Agriculture.

P. MINERAL AND STONE PRODUCTION

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.), and further deposits will probably be found.

The continued existence of our technological society will depend on the availability of minerals. Our present mineral requirements may be well known, but it is impossible to predict future needs arising from further scientific advances. Presently known but uneconomic deposits of currently important minerals may become economically exploitable ; 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. It is therefore important that the reservation of conservation areas should not automatically exclude exploration for mineral or petroleum 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.

Materials covered by the definition of "stone" in the *Extractive Industries Act* 1966 are widespread in the area. These materials include rock of any kind, gravel, clay, sand, and soil.

There is a strong community demand for new and better roads and buildings, and so for the materials needed for their construction. Most of these materials are supplied from private land, but in some cases public land is also an important source.

The Council is concerned at the complexity of legislation and procedures governing extraction of " stone ", and 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 of the provisions of the *Extractive Industries Act* 1966.) A substantial number of unwise excavations have been made upon public land, and in some instances the rehabilition of excavated land is lagging. Poorly planned and located excavations can affect surrounding lands through noise, dust, unsightliness, and erosion, and diminish or destroy the value of the land for nature conservation ; however, with care these effects can be minimized.

The Council is also concerned at the wide privileges conferred on the holder of a miner's right.

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 conditions imposed by, the Department of Mines.

In considering an application, the Department of Mines should apply the guidelines listed below, and should be required to consult the public authority that manages the land and enforce any reasonable conditions imposed by that authority within the field of its expertise. In addition, the department should be required to consult the Soil Conservation Authority if the area disturbed will exceed 0·2 ha or where the area is an erosion hazard area, a coastal reserve, at an elevation greater than 1 200 m, or within a proclaimed water supply catchment.

(ii) all exploration for and the extraction of " stone " on public land should be subject to the approval and conditions imposed by the authority that manages the land.

Where the area disturbed will exceed 0·2 ha or where the area is an erosion hazard area, a coastal reserve, at an elevation greater than 1 200 m, or within a proclaimed water supply catchment, the managing authority is required to obtain the approval of the Soil Conservation Authority and enforce any conditions imposed by that Authority.

If approval for extraction of " stone " is granted by the authority that manages the land (and the Soil Conservation Authority when necessary), any project involving extraction of material to a depth of more than 2 metres below the land surface should then be subject to the approval of, and conditions imposed by, the Department of Mines as is currently required of extractive industries.

These requirements should apply to municipal councils, the Country Roads Board, and other public authorities, as well as to commercial operators, but to allow this the relevant Acts would have to be amended.

(iii) A system should be established that would guarantee that funds for rehabilitation would be available for any operation, before the operation commences. This is already the case for operations where the *Extractive Industries Act* applies.

(iv) Royalties for material 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 of " gold ", " minerals ", " petroleum ", or " stone " from public land.

* No sites for the extraction of " gold ", " minerals ", and " petroleum " should be opened in areas considered, by the Department of Mines after consultation with the land management authority, to be of greater value for their aesthetic or nature conservation values. Similarly, no sites for the extraction of " stone " should be opened in areas considered by the relevant public authority to be of greater value for their aesthetic or nature conservation values.

* Currently mine tailings on public land may be removed for use as " stone " subject to the approval of and conditions imposed by the Mines Department. Where possible mine tailings should be used in preference to naturally occurring materials. The Mines Department should consult the land management authority to ensure that proposed operations are compatible with the broad aims of management for the area. In particular, mine tailings from old mine workings sometimes have significant historic and recreation values, which should be recognized when applications for their removal are considered.

* Extraction of " stone " should be concentrated on the fewest possible sites in an area, and any one site should be completely worked out and rehabilitation ensured before a new site is exploited. The emphasis

should be on quarries properly managed for stone production rather than shallow surface pits. In particular the extraction of granite sand occurring as shallow deposits 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. Prior to approval being given, there should be consultation with the State Rivers and Water Supply Commission, the Soil Conservation Authority, and the Fisheries and Wildlife Division, and consideration should be given to the scenic and recreation values of the area.

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

* All extraction sites should be fully rehabilitated. Rehabilitation should follow extraction progressively when possible, but otherwise should begin immediately extraction is completed. The aims for rehabilitation should be defined by the authority that manages the land, and may include, for example, revegetating 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 revegetating it with species native to the site.

RECOMMENDATIONS

P1 That public land in the study area 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, indicated on the map, be temporarily reserved for mineral and stone production :

Eldorado dredge tailings : An area of 103 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 State park (A3) when the extraction operations are completed.

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

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

Q. UTILITIES, SURVEY, AND OTHER RESERVES

Many utilities occupy public land. These include roads, powerlines, pipelines, sewage farms, aerodromes, garbage depots, hospitals, schools, and cemeteries. Many small areas are used for the purposes listed above but as no change of use is proposed, these areas are not specifically referred to in these recommendations. 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, and land for these purposes will have to be allocated when firm proposals are made. The Council believes that government agencies concerned with provision and installation of communication equipment, transmission lines, pipelines, roads, etc., should 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 of costly resurveys.

The Council notes that the State Electricity Commission is still considering the future transmission line requirements in the study districts. The main transmission lines being considered are :

(*a*) a 230-kv single-circuit line from Dartmouth Dam, to Mount Beauty via Trappers Gap, or to Dederang via one of three alternative alignments (the route of this line is currently being investigated by a Parliamentary Public Works Committee.)

(*b*) one or two 220- or 330-kv single-circuit lines from Dederang terminal station to a possible new terminal station at Wodonga

(*c*) a 220-kv single-circuit line between Glenrowan, Dederang, and Wodonga terminal stations

(*d*) a third single-circuit 330-kv line from the Murray switching station to South Morang terminal station via Dederang.

The sub-transmission lines being considered are :

(*a*) a second 66-kv line from Mount Beauty terminal station via Bright to Myrtleford zone substation

(*b*) a second 66-kv line between Wangaratta and Wodonga zone substations

No allocation of public land in the study districts for these powerlines 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

Q1 That existing power line easements continue to be used for this purpose.

Q2 Roads, powerlines, and pipelines should be sited to minimize disturbance to public land, and should not impinge on parks, reference areas, bushland reserves, or scenic reserves without the approval of the management authority. New pipelines and powerlines should follow existing easements if possible ; this may require widening of some easements.

Garbage and sanitary depots

The Council is of the opinion that municipal councils should be encouraged to share garbage and sanitary disposal facilities in order to minimize the number of such areas required.

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 ha, being allotment 1B, section 4, Parish of Porepunkah, be used for a Shire rubbish tip.

Railway lines

Q5 That where isolated remnants of the original vegetation remain on land associated with railway lines, every effort be made to protect that vegetation consistent with management practices

Q6 That remaining disused railway land within the study area (e.g. : the Beechworth–Yackandandah and Wangaratta–Whitfield lines) be retained as public land. The routes of old railway lines may be valuable for use as cycling or walking tracks, and may eventually be needed again as routes for public transport.

Pipelines

Q7 That the proposed gas pipeline from Melbourne to Wodonga follow the route of the existing State Electricity Commission 66-kv subtransmission line through the Chiltern forest as shown on the maps.

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.

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 recognizes the necessity to reserve sites in the future for new trigonometrical stations.

Q10 The Council believes that the minimum area necessary for survey purposes be reserved around trigonometrical stations on public land in the district where it would otherwise remain as unreserved Crown land, and that where other forms of public land tenure apply, the Department of Crown Lands and Survey has the right to occupy a minimum area around the stations and provide lines of sight.

Other reserves and public land

There are small areas of both reserved and unreserved Crown land in the study area which are used for various purposes such as water, grazing, camping, and so on, and which have not been specifically mentioned in these recommendations. The Council intends that existing legal uses and tenure of such land should continue.

Q11 That for small areas of public land not specifically mentioned in these recommendations, existing legal uses and tenure continue.

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 minimize 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 Pilot Range State Park (A3).

S. UNCOMMITTED LAND

In planning land use, known resources are allocated to satisfy known or predicted demands. However, Council is aware that many changes cannot be foreseen and that resources themselves will change as exploration, investigation, and technology progress. For these reasons it is desirable that planning be flexible so that, when land use is reviewed, resources can be re-allocated or adapted to meet changed demands. Changes in demand may affect present uses or may create entirely new ones.

Provision for future demands is made by placing land under flexible forms of use (that is, uses that do not have a major impact on the ecosystem) and by retaining as much land as possible in an uncommitted state.

Such uncommitted land is securely retained as public land, although the form of tenure permits changes in use or status if these are recommended following revision by this Council. All resources on uncommitted land are to be carefully managed, in order to prevent the impairment of the land's capability for future uses. In practice this means conserving the capabilities that the land is known to possess, while allowing low levels of some type of use (provided this can be done without reducing options for future uses by causing changes that would be difficult to reverse). Uncommitted land includes areas that, although having a low capability to satisfy any known demand, have an unknown (and perhaps high) capability to satisfy future demands.

It also includes areas that, although having a high capability to satisfy one or more known demands, are at present not committed to any one use, as foreseeable requirements can readily be met from other areas.

Council wishes to emphasize that sufficient resources should be made available to the authorities responsible for managing uncommitted land to permit careful management of the land. In particular, measures to protect the land and adjacent areas from soil erosion, wildfire, and vermin and noxious weeds are essential.

RECOMMENDATIONS

S1 That the land (258 000 ha), indicated on the map and listed in the schedule below, be used to :

(*a*) achieve or maintain stability of the land and maintain its usefulness for possible future uses

(*b*) provide other products (including forest produce) and services (including grazing) where this can be done in a manner compatible with (*a*) above

and that new access tracks or roads be constructed on this land only where necessary for management

and that it be uncommitted land withheld from sale under section 36 of the *Land Act* 1958

and that it be *protected forest* under the provisions of the *Forest Act* 1958.

Schedule of small blocks included in S1 above :

1·9 ha north of allotment 7A of section 1A, Parish of Wyeeboo

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 25, 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
0·8 ha adjoining allotment 4B of section 8, Parish of Bungamero
1·2 ha adjoining allotments 97 and 97A, Parish of Whorouly
2·7 ha adjoining allotment 2F of section 49, Parish of Moyhu
1·6 ha west of allotment 56A, Parish of Myrrhee
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
40 ha, being that part of the timber reserve outside the city boundary adjacent to allotment 16C, Parish of Wangaratta North
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 1A, Parish of Porepunkah
1 ha adjoining allotment 8A of section A, Parish of Carraragarmungee
0·7 ha adjoining allotment 1 of section 10, Parish of Woorragee.

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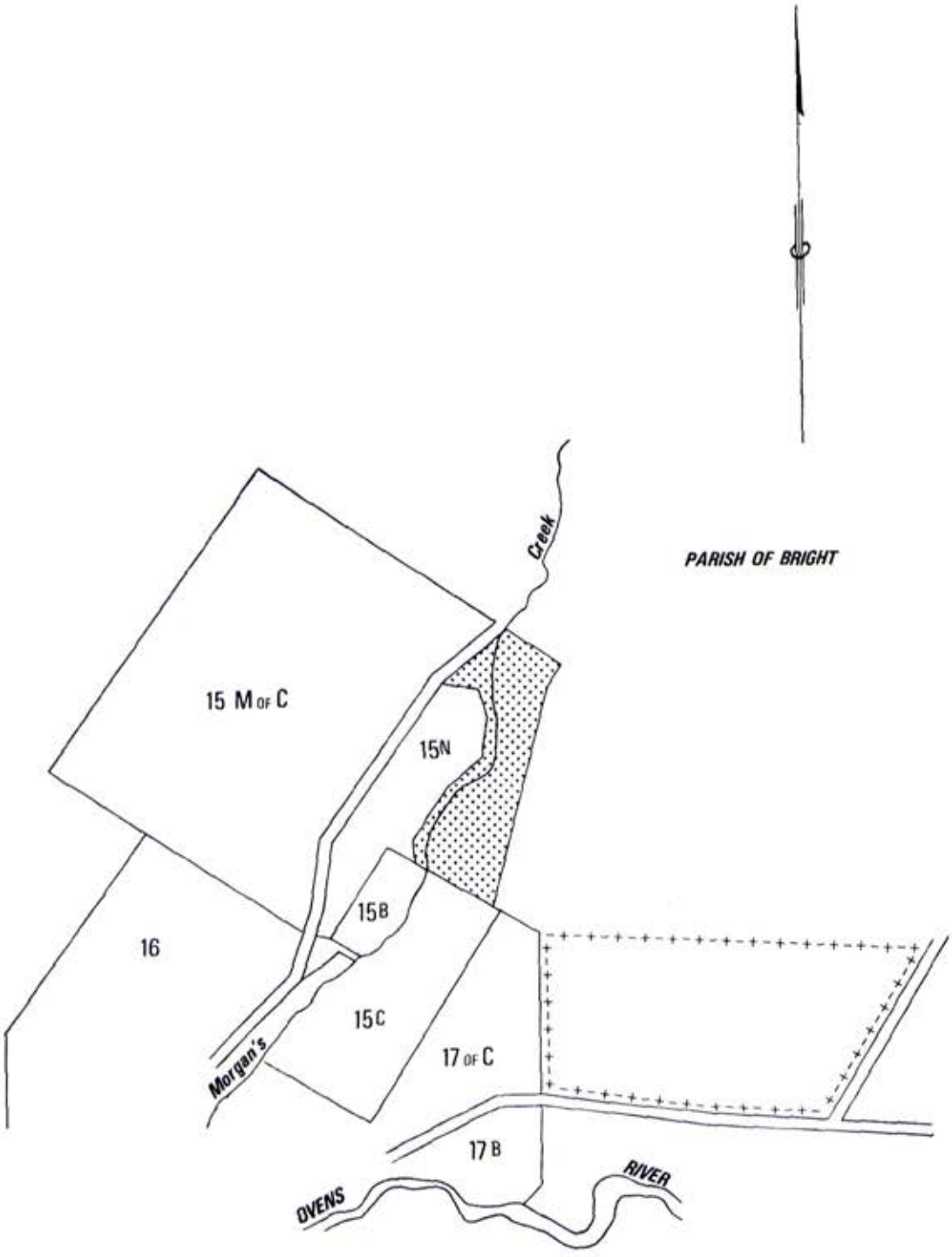
MAPS

AGRICULTURE 01

BRIGHT

MAP No 4



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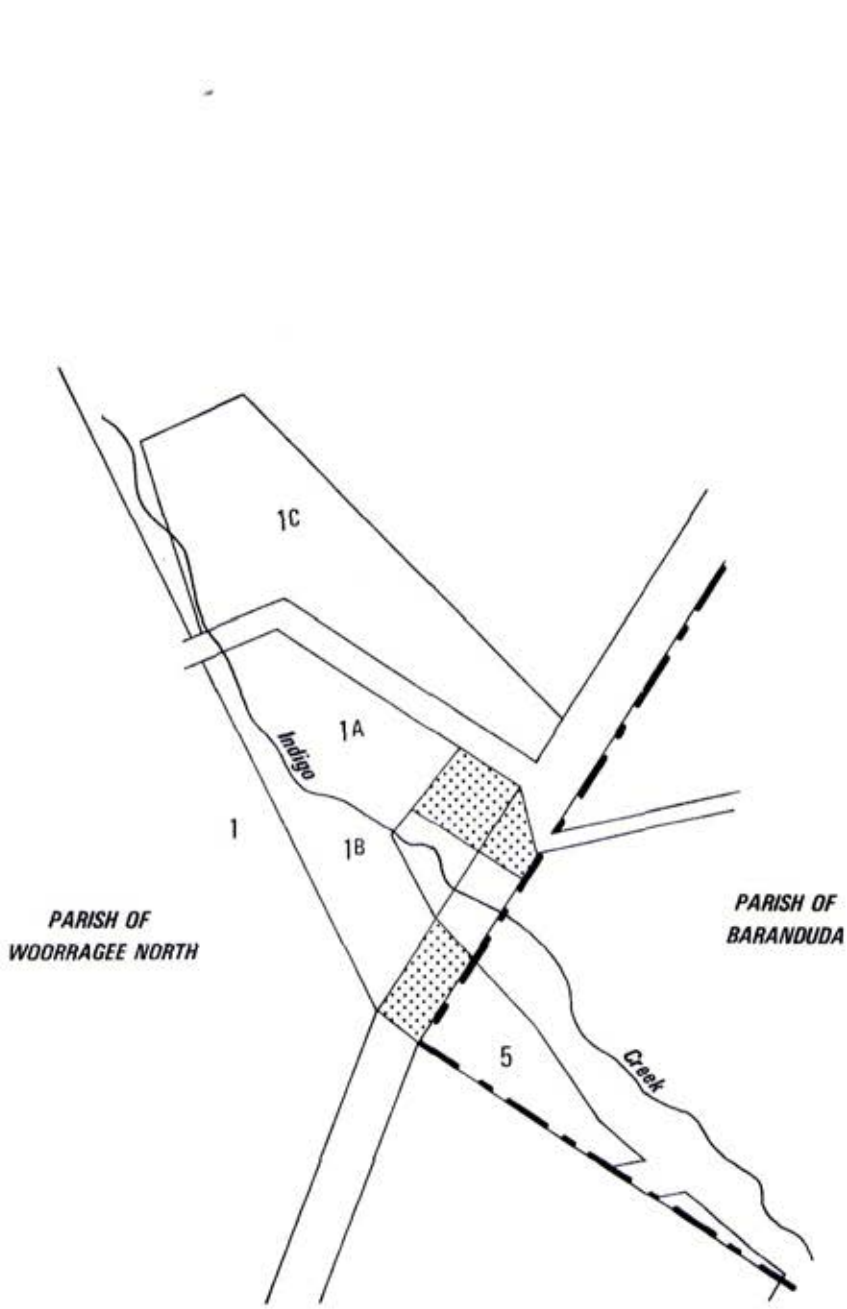
AGRICULTURE 01

MAP No.5

WOORRAGEE NORTH



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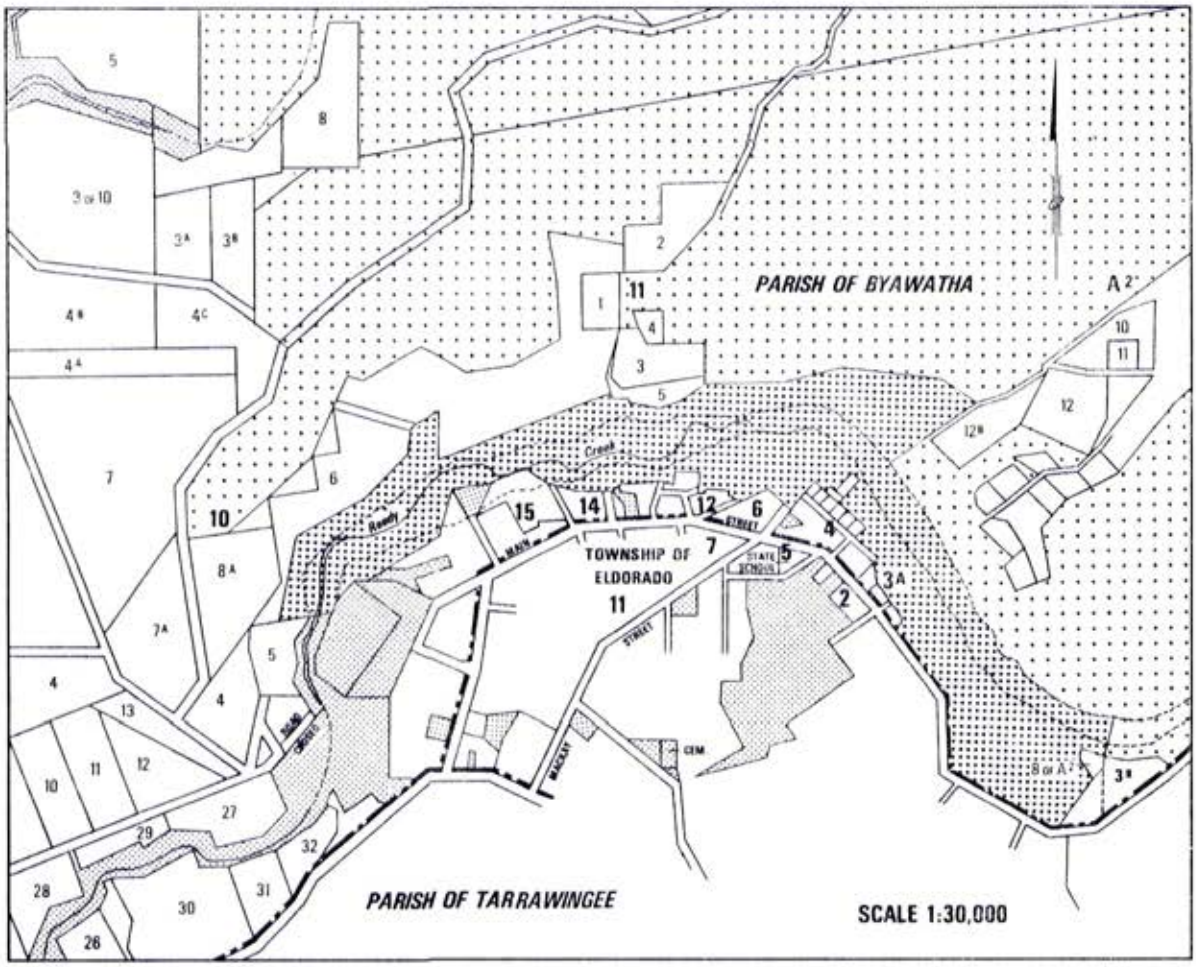
P2: ELDORADO DREDGE TAILINGS

MAP No.6



LEGEND

A3 *Parks*

I1 M4 Q11 S1 *Other public land for which no change in use is proposed*

P2 *Mineral and Stone Production*