

FINAL RECOMMENDATIONS

**SOUTH WESTERN STUDY AREA
DISTRICT 1**

**LAND CONSERVATION COUNCIL, VICTORIA
MELBOURNE, APRIL 1973**

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LAND CONSERVATION COUNCIL

464 St. Kilda Road,
Melbourne, Vic. 3004
April, 1973

RECOMMENDATIONS FOR THE SOUTH WESTERN STUDY AREA

The Hon. W. A. Borthwick M.P.,
Minister for Conservation,
Parliament House,
Melbourne, Vic. 3002

In accordance with the provisions of the *Land Conservation Act* 1970, I have the honour to present the recommendations of the Land Conservation Council with respect to land use on the public land in the Council's south western study area.

S. G. McL. DIMMICK, *Chairman.*

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INTRODUCTION

INTRODUCTION

The Land Conservation Council was established by the *Land Conservation Act* 1970. Its main function is to make recommendations to the Minister for Conservation with respect to the use of public land in order to provide for the balanced use of land in Victoria. This report contains the Council's first recommendations, covering the public land in the south-western study area, district 1.

Notices showing the boundary of the study area and advising that an investigation was to be carried out were published on June 25th, 1971. A thorough study of the area was then undertaken, and a descriptive report was published on August 24th, 1972. In the following 60 days the Council received 151 submissions on the future use of public land from a wide cross-section of the community. Individuals, associations, companies and local and State government bodies made helpful submissions covering most feasible forms of land use for the district.

After considering these submissions and the descriptive report, and visiting the area, the Council formulated proposed recommendations, which were published on December 24th, 1972. In the following 60 days a further 91 submissions commenting on these were received. After considering these submissions in turn, the Council prepared final recommendations.

Extracts from the *Land Conservation Act* 1970, covering the procedure to be followed in formulating recommendations, were published in the descriptive report.

Land Use

The study area covers a total of 1,790,000 acres, of which 1,150,000 acres (64 per cent.) has been alienated and is used mainly for livestock production. It contains 550,000 acres of public land (31 per cent.) in large blocks, and a further 90,000 acres of other public land (5 per cent.) in roads, stream frontages and land in townships.

Table 1 summarizes land use on the public land as proposed by these recommendations. Note that it is not possible to categorize all land precisely, and that multiple use occurs on most areas.

TABLE 1.
LAND USE ON PUBLIC LAND.

	'000 acres (approx.)	per cent. of public land	per cent. of all land in the study area
1. Conservation areas	136	24·7	7·6
2. Hardwood production	121	22·0	6·8
3. Softwood production	63*	11·5	3·5
4. Use for several purposes	220	40·0	12·3
5. Agriculture	10	1·8	0·6
	550	100	30·8

* Includes existing plantations.

This report groups the recommendations under the major forms of land use, but it must be recognised that in most cases these are not exclusive and many secondary uses are compatible.

The recommendations expand the area to be used primarily for recreation and conservation by enlarging existing reserves and creating new ones. They propose the creation of several new types—scientific reference areas, coastal reserves, and bushland reserves. The areas allocated to timber production and agriculture are sufficient to meet present demands.

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.

The recommendations maintain most of the public land in a flexible state by placing as much land as possible under forms of use that do not have major impact on the natural ecosystem, and by placing large areas into the uncommitted land category. Flexibility in land use planning is essential, since land use must be reviewed periodically as community needs and technology change. These recommendations do not set out to fix land use permanently ; they will have to be reviewed, and in the case of softwood plantations such a review must take place well before 1981.

Maps

This report includes a map of the study area (Map A), which gives a broad view of the recommendations, and 17 supplementary plans showing the boundaries applying to certain recommendations in more detail.

The areas of land referred to in the recommendations have been identified as clearly as practicable, having regard to the information available and the comparatively small scale of plans, particularly Map A. However, the boundaries of many areas have not been precisely surveyed and are therefore subject to minor modifications, road excisions, and other adjustments that may become necessary.

Management and Protection

The Council is aware of the need for competent management and protection of public lands. It recommends that where changes in land use are proposed the present legal status and management of public lands be retained until the appropriate departments can cope with day to day management and protection of the land. However, land use and management should conform to the recommendations of this Council irrespective of which department controls the land.

This report recommends that large areas of land be reserved for recreation and conservation purposes. The Council considers it essential that resources in the form of money, equipment, and staff be made available for the management and protection of conservation areas.

ADDENDUM—FIRE PROTECTION

The Council, having regard to the special circumstances associated with this Study Area, recommends that urgent consideration be given to the preparation and implementation of a fire protection plan for the Lower Glenelg park, prepared by the Forests Commission and National Parks Service in consultation.

Pending the provision by the Government of adequate resources to the National Parks Service, and overall consideration of fire protection matters in relation to this park and other reserves, it shall be the duty of the Forests Commission to carry out proper and sufficient works for fire prevention and control within this park and areas reserved under Section 14 of the *Land Act* 1958.

The Council also stresses the critical need to make adequate provision for fire protection throughout the public lands, and especially in those areas where changes in management may occur. The Council will give further consideration to the means by which adequate fire protection can be achieved on all public lands.

FINAL RECOMMENDATIONS

A. PARKS

The Council notes that the number of people participating in recreational activities in natural surroundings is rising rapidly, and believes that participation will continue to increase. However, the natural areas available for these activities are decreasing, and it is essential to allocate land to these uses now, before the resources available are further reduced by alienation and clearing.

The term “park” is here defined as “an area of land reserved for its scenery, biological content, or other features of interest, for public recreation, enjoyment and education.” This definition encompasses many different types of parks, the main differences arising from variations in size and content and the types and intensity of uses to which they are subjected.

A scheme of classification is necessary to define the purpose for which a park was created, to distinguish between different types of use, and to indicate different aims of management. Such a scheme will help planners, managers, and users of parks. In addition, it is desirable to classify parts of parks into zones for ease of management. In this report, recommendations concerning parks are presented in terms of the uses to which the land should be put. These parks can be placed into categories, with appropriate names, when a scheme of classification is drawn up.

It should be noted that, although parks are reserved specifically for recreation and conservation, many other forms of land use—such as water, wildlife, and timber production, and multi-purpose areas—are compatible with nature conservation and are available for recreation.

Policy Recommendation

A(i) That a scheme for classifying parks be drawn up for use in Victoria, using terms such as State park, regional park, conservation park, recreation park, coastal park, and so on. The term “national park” should preferably be restricted to large areas of land containing diverse land types and outstanding natural features.

Specific Recommendations

A1 (Lower Glenelg)

That the area (64,000 acres) indicated on Map A and shown in detail on Plan No. 1 be used to :

- (a) protect and conserve natural ecosystems for the enjoyment and inspiration of visitors, and for scientific study
- (b) protect and conserve the gorge of the Glenelg River and other scenic features
- (c) provide opportunities for recreational and educational experiences related to enjoying and understanding nature—

and that the area be reserved as a park and that it be controlled by the National Parks Service.

The park includes the gorge of the Lower Glenelg River, the Princess Margaret Rose Caves, the Bulley Ranges, the Kentbruck Heath, and Red Gum Swamp.

In addition, Council recommends that the Glenelg River be available for boating and fishing and that access points and boat ramps be provided for these purposes. The Council recommends that the existing zoning and control of boating on the Glenelg River continue for the present. Occupancies for landings and boatsheds on the Glenelg River in the park should be terminated at the end of 1983, and should not be transferable. The four township sites located within the park should be incorporated into the park.

In view of the particular fire hazard that exists in the park and the value of the assets on nearby land, it is strongly recommended that the National Parks Service and the Forests Commission be required to draw up an adequate fire-protection policy for this park and that the facilities needed for implementation be provided.

It is recommended that the Wanwin Road, Inkpot Road, and the southern extension of Inkpot Road to Hurdle Flats remain open unless satisfactory alternative arrangements can be made.

A2 (Mount Richmond)

That the area (4,600 acres) indicated on Map A and shown in detail on Plan No. 2 be used to :

- (a) provide opportunities for open-space recreation for large numbers of visitors
- (b) protect and conserve natural ecosystems, especially the flora, for the enjoyment of visitors—

and that the area be reserved as a park and that it be controlled by the National Parks Service.

The main feature of the park is Mount Richmond, at 650 ft. The park is 10 miles from Portland, and has abundant wildflowers.

A3 (Crawford River)

That the area (4,700 acres) indicated on Map A and shown in detail on Plan No. 3 be used to :

- (a) provide opportunities for open-space recreation related to enjoying and understanding nature
- (b) protect and conserve the valley of the Crawford River
- (c) protect and conserve the natural ecosystems for the enjoyment of visitors
- (d) produce hardwood timber from controlled logging operations away from the River—

and that the area be reserved as a Forest Park under section 50 of the *Forests Act* 1958.

This park contains the forested valley of the Crawford River, and a road gives access to the river in several places.

A4 (Wilkin)

That the area (9,000 acres) indicated on Map A and shown in detail on Plan No. 4 be used to :

- (a) protect and conserve the natural ecosystems, especially the flora, for the enjoyment of visitors
 - (b) provide opportunities for low-intensity recreation related to enjoying and understanding nature
 - (c) provide duck-shooting over the swamps during the open season—
- and that the area remain unoccupied Crown land, protected by section 36 of the *Land Act* 1958, pending possible future incorporation into the parks system.

This park contains flat land with brown stringybark forests, swamps, and heaths. It has a rich flora.

Coastal Reserve

Large areas of public land lie behind the coast in two places in the study area—Discovery Bay (20,000 acres) and Bridgewater Bay (3,600 acres). While the sandy, unstable nature of this land makes it unsuitable for agriculture or timber production at present, it has high potential for recreation and landscape preservation. The large area of sand dunes, lakes, and swamps on the Discovery Bay coast has particular value as a coastal reserve. The coast, lakes, and river mouth provide opportunities for recreation for large numbers of people, while the dunes provide opportunities for recreation in solitude. The dunes and swamps contain diverse populations of plants and animals, as well as features of geomorphic and archaeological interest.

At its western end the proposed coastal reserve would incorporate an area which is currently a Wildlife Reserve (Long Swamp), and this would involve recognition of the need for management and conservation of wildlife. Stabilization of sand dunes is needed, at least in key situations where other values of the land or adjacent land require protection. Existing zoning and control of boating on the Bridgewater Lakes should continue for the present.

The potential of this land can best be realized by placing the whole area under unified management. The Council recommends that a section of the Ministry of Conservation have over-all responsibility for the integrated management of coastal reserves throughout the State. This recommendation is justified by the importance of coastal areas—they are limited in extent, often isolated from other areas of public land, and are subject to great pressure from a number of uses. Many coastal areas are potentially unstable, and are extremely vulnerable to misuse.

A5 (Discovery Bay)

That the area (20,000 acres) indicated on Map A and shown in detail on Plan No. 5 be used to :

- (a) provide opportunities for recreation on the coast, lakes and river mouth (including water-skiing on the largest of the Bridgewater Lakes)
- (b) provide opportunities for recreation in solitude in the sand dunes
- (c) conserve floral, geomorphological, and archaeological features of the area for the enjoyment of visitors and scientific study
- (d) ensure the management and conservation of wildlife
- (e) permit any necessary stabilization of the dunes—

and that it be set aside under section 14 of the *Land Act* 1958 as a coastal reserve, and that the area be managed by the Fisheries and Wildlife Division pending the setting up of a means of managing coastal reserves.

The reserve includes the mouth of the Glenelg River, Long Swamp, Lake Monibeong, Swan Lake, Bridgewater Lakes, the sand dunes, and desolate ocean beach.

Council also recommends that a limited area be provided for a trial period for motorized recreation vehicles in the Discovery Bay dunes. There should be full consultation with other departments and interested bodies before an area is selected.

B. SCIENTIFIC REFERENCE

Scientific reference areas are areas of public land that contain viable samples of one or more land types with relatively undisturbed biological content. These areas are reserved as a reference, to which those concerned with changing and managing land for either productive or aesthetic uses can refer when attempting to solve problems arising from use of the land.

Scientific 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. The areas must be large enough to be viable and should be surrounded by a buffer zone. Their selection is not difficult in practice, as few suitable areas remain.

In common with references and standards used in other fields these areas must not be tampered with, and natural processes must be allowed to continue undisturbed. Access to these areas will be restricted to competent observers carrying out approved work, and experimental manipulation will not be permitted.

Reference areas will permit continued study of the natural hydrology, nutrition, fauna, flora, and dynamics of natural environments. 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 species in the long term requires the setting aside of areas that are not subject to 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.

The management policies for scientific reference areas throughout the State should be determined by a committee of scientists drawn from the universities, C.S.I.R.O., and the Public Service. The policies would be implemented by the authority managing the buffer zone.

Policy Recommendations

B(i) That, because of restrictions on their use, and to help ensure their viability, reference areas should be surrounded by a buffer zone in which the natural features of the land type are conserved but with less stringent restrictions on use. Such areas could include parks, native forest, and wildlife or flora areas. The selection of areas for all these uses must be co-ordinated.

B(ii) That the authority managing the buffer zone control an enclosed scientific reference area.

The Council, in recommending the creation of scientific reference areas, foresees the need for new legislation to specify the status of these areas and for the establishment of a co-ordinating body to determine the broad policy for their management.

Specific Recommendations

B1 (Keegan's Bend)

That the area (2,400 acres) indicated on Map A and shown in detail on Plan No. 6 be used to maintain the ecosystem (permitting natural processes to continue with a minimum of human interference) for scientific study related to the impact of Man's activities on that ecosystem ; and that the area be reserved for scientific reference, be added to the adjoining park area, and be controlled by the National Parks Service.

The land in Keegan's Bend is a representative sample of the thousands of acres of land in the Victorian-South Australian borderland that have been cleared for softwood production. Of the limited areas of this land type remaining in a natural state, Keegan's Bend is best suited for scientific reference due to its relatively undisturbed nature and its inaccessibility.

B2 (Kentbruck Heath)

That the area (1,800 acres) indicated on Map A and shown in detail on Plan No. 7 be used, reserved and controlled as recommended in B1.

The Kentbruck Heath is the only large area of wet heath remaining in western Victoria, and is similar to the large areas of heath that have been cleared for agriculture. The scientific reference area includes a range of land types, and is located away from tracks and scenic features that will attract visitors.

B3 (Cobboboonee)

That the area (950 acres) indicated on Map A and shown in detail on Plan No. 8 be used, reserved and controlled as recommended in B1.

This area contains examples of the Cobboboonee land type—that is, tall forests growing on clayey gradational soils derived from basalt. This land type is one of the most important in the Portland area ; it has been developed for agriculture, fruit-growing, and hardwood forestry, and will soon be used for softwood production. The scientific reference area is located at least 40 chains from main roads, and is buffered by land under park use.

B4 (Roseneath)

That the area (5,500 acres) indicated on Map A and shown in detail on Plan No. 9 be used as recommended in B1, and that the area be reserved for scientific reference under section 14 of the *Land Act* 1958.

This area is representative of the thousands of acres of sheets and low dunes of siliceous sands occurring in south western Victoria, and carries low brown stringybark forest, with heaths, swamps, and some gum woodlands. This land type has been developed for agriculture and softwood production. The scientific reference area also contains a section of the major geological feature, the Kanawinka Fault. Access into the area is difficult, and a buffer zone 40 chains wide surrounds it on three sides.

C. WILDLIFE

While some of Australia's native species have been able to adjust to the changes brought to the environment by European Man, many have suffered serious decline in population numbers. A few have become extinct, not necessarily due to Man's activities.

The conservation of fauna depends on conservation of habitat, and by far the largest remaining area of natural habitat in Victoria is on public land. While most forms of land use on public land—such as hardwood timber production and park-type use—are compatible to a considerable degree with conservation of habitat, it is necessary to set aside some areas specifically for conserving fish and wildlife. Such areas are selected for their ecological significance for (or regional representation of) a species or faunal association, or for their value as a stop-over for migratory and nomadic species. The conservation of flora and provision of open-space recreation are major secondary uses of wildlife reserves. Populations of native animals on public land must be controlled to minimize the damage that they can cause to pastures on adjacent private property.

In this study area, conservation of wildlife is the primary use recommended for fifteen areas. Six of these may be used primarily to produce game species. Duck-shooting is a popular sport, and a small industry is geared to supplying shooters' needs. In seasons when ducks are plentiful, 35,000 duck licences are sold in Victoria. Japanese snipe are also common in the wetlands of this study area and provide shooting outside the duck season.

The number of waterfowl in Australia is declining as a result of damming streams, draining swamps, and developing the land. To reverse this decline, further draining of wetlands must be halted, and some drained and altered areas reclaimed. In addition, many areas must be actively managed to provide optimum conditions for breeding large numbers of waterfowl. These measures will also result in conservation of the habitat of many water-birds other than game species.

The south-western study area formerly contained large areas of wetlands. Many of these have been alienated, cleared, and drained for agriculture. Those remaining in public land consist mainly of small to medium-sized swamps (5–40 acres) scattered through forests, and some larger swamps and lakes. Many of these wetlands have been altered by early attempts at drainage and cultivation.

Permanent frontage reserves border the major streams, but many of them have been altered by grazing and clearing.

Policy Recommendations

C(i) That natural wildlife and fish habitats on public land be conserved and restored if practicable, especially in the cases of wetlands and water frontages.

Specific Recommendations

C1 (Lawrence Rocks)

That the area indicated on Map A be used primarily to conserve wildlife, and that it remain a Wildlife Reserve under section 14 of the *Land Act* 1958 and be controlled by the Fisheries and Wildlife Division.

Lawrence Rocks, a group of small islands 6 miles south-east of Portland, contain populations of several species of sea birds.

C2 (Bat's Ridge)

That the area (800 acres) indicated on Map A be used primarily to conserve wildlife, and that the whole area be set aside under section 14 of the *Land Act* 1958 as a wildlife reserve to be controlled by the Fisheries and Wildlife Division.

Bat's Ridge, a limestone dune surrounded by sandy heath, lies 5 miles west of Portland. The proposed reserve consists of all the public land lying south of Allotments 19, 20, 21, and 22 of Section 11, Parish of Trewalla, and north of the Portland-Cape Bridgewater main road. This is an extension to an existing reserve.

C3 (The Stones)

That the area (800 acres) indicated on Map A be used primarily to conserve wildlife, and that it be set aside under section 14 of the *Land Act* 1958 as a Wildlife Reserve to be controlled by the Fisheries and Wildlife Division.

This proposed reserve contains "stony-rises" land, and is an addition to the existing large reserve to the east. The land covered by this recommendation is Allotment 5 of Section 11, Parish of Condah, and the land north of Allotments 13A and 14A, and north-west of Allotment 22A, Parish of Dunmore.

C4 (Crawford Lake)

That the area (250 acres) indicated on Map A and shown in detail of Plan No. 10 be used primarily to conserve wildlife, and that it be set aside under section 14 of the *Land Act* 1958 as a Wildlife Reserve to be controlled by the Fisheries and Wildlife Division.

C5 (Red Hill Swamp)

That the area (135 acres) indicated on Map A be used primarily to conserve wildlife, and that it be set aside under section 14 of the *Land Act* 1958 as a Wildlife Reserve to be controlled by the Fisheries and Wildlife Division.

This swamp adjoins Allotments 35 and 36 of Section B, Parish of Myaring.

C6 (Kerr's Swamp)

That the area (700 acres) indicated on Map A be used primarily to conserve wildlife, and that it be set aside under section 14 of the *Land Act* 1958 as a Wildlife Reserve to be controlled by the Fisheries and Wildlife Division.

Kerr's swamp lies south of Allotments 22 and 29A, Parish of Ardno.

C7 (Kaladbro Swamp)

That the area (400 acres) indicated on Map A be used primarily to conserve wildlife, and that it be set aside under section 14 of the *Land Act* 1958 as a Wildlife Reserve to be controlled by the Fisheries and Wildlife Division.

Kaladbro Swamp lies south-east of Allotment 70, Parish of Kaladbro.

C8 (Church Swamp)

That the area (300 acres) indicated on Map A be used primarily to conserve wildlife, and that it be set aside under section 14 of the *Land Act* 1958 as a Wildlife Reserve to be controlled by the Fisheries and Wildlife Division.

Church Swamp lies west of Allotments 14 and 17, Parish of Werrikoo.

C9 (Beniagh Swamp)

That the area (530 acres) indicated on Map A be used primarily to conserve wildlife, and that it be set aside under section 14 of the *Land Act* 1958 as a Wildlife Reserve to be controlled by the Fisheries and Wildlife Division.

This proposed reserve is Allotment 19, Parish of Mageppa.

C10 (Lake Condah)

That the area (500 acres) indicated on Map A be used primarily for the production of waterfowl and that it be set aside under section 14 of the *Land Act* 1958 as a Wildlife Reserve to be controlled by the Fisheries and Wildlife Division.

Lake Condah is the area of public land lying north-west of and adjacent to Allotment 5 of Section 11, Parish of Condah.

The Council believes that a full survey and investigation of the possibility of flooding Lake Condah without detriment to the Condah Swamp drainage scheme should be carried out, and notes that such a study has been commissioned by the Fisheries and Wildlife Division and is in progress.

C11 (Sinclair Lake)

That the area (37 acres) indicated on Map A be used primarily for the production of waterfowl, and that it be set aside under section 14 of the *Land Act* 1958 as a Wildlife Reserve to be controlled by the Fisheries and Wildlife Division.

Sinclair Lake is an area of public land within Allotment 12B, Parish of Drumborg.

C12 (Tremaine Swamp)

That the area (270 acres) indicated on Map A and shown in detail on Plan No. 11 be used primarily for the production of waterfowl, and that it remain reserved forest and be managed jointly by the Forests Commission and the Fisheries and Wildlife Division.

C13 (Grassy Flats)

That the area (540 acres) indicated on Map A and shown in detail on Plan No. 12 be used primarily for the production of waterfowl, and that it remain reserved forest and be managed jointly by the Forests Commission and the Fisheries and Wildlife Division.

C14 (Burgess Swamp)

That the area (130 acres) indicated on Map A be used primarily for the production of waterfowl and that it be set aside under section 14 of the *Land Act* 1958 as a Wildlife Reserve to be controlled by the Fisheries and Wildlife Division.

Burgess Swamp is Allotment 8 of Section A, Parish of Wataepoolan.

C15 (Tooloy-Lake Mundi)

That the area (11,000 acres) indicated on Map A be used primarily for the production of waterfowl and that conservation of other forms of wildlife, and flora be given special attention; and that it be set aside under section 14 of the *Land Act* 1958 as a Wildlife Reserve to be controlled by the Fisheries and Wildlife Division.

This reserve contains a complex of swamps, heaths and forest. It consists of Allotments 8, 8A, 9, 9A, 10, 11, 13 (part), 13A, 14, 15, 15A, 16, 17A, and 17B, and the area south of 15A known as Lake Mundi, in the Parish of Tooloy and Allotment 16 in the Parish of Byjuke.

D. HARDWOOD TIMBER PRODUCTION

Hardwood sawmilling is an important industry that employs about 150 men in 10 mills in and around the study area. Messmate (*Eucalyptus obliqua*) and brown stringybark (*E. baxteri*) are the most important timber species, and red gum and yellow gum are significant in the north of the study area. Most of the sawn timber produced finds a ready market locally, and in addition the forests provide fencing materials, poles and firewood. The availability of building and farm timbers is a significant factor in the local economy. The supply of all timber from public land is controlled by the Forests Commission.

The demand for hardwood timber will probably continue at its present level. However, any proposed woodchip projects that involve large scale clear falling should be referred to the Land Conservation Council.

In the following recommendations, large areas are allocated to hardwood timber production. This is justified by the importance of the industry, and by the compatibility of this form of land use with other uses such as the conservation of flora and fauna, recreation, and landscape preservation. In addition, it retains land in a flexible state.

The policy recommendation is intended to ensure that these other uses are recognized and encompassed in the management of areas for hardwood timber production.

Policy Recommendation

- D(i)** That the provision of opportunities for open-space recreation, and the conservation of native animals and plants be major secondary uses of areas for hardwood timber production. In particular, wetlands should be used to conserve populations of diverse species of water birds. Other uses are honey production, grazing, and the production of other forest produce as defined in the *Forests Act* 1958, including gravel, sand and limestone.

Specific Recommendations

D1 (Cobboboonee)

That the area (66,000 acres) indicated on Map A be used primarily to produce hardwood timber ; that within this area special attention be given to the protection and conservation of koalas near Lyons ; and that the area be reserved forest.

D2 (Annya)

That the area (27,000 acres) indicated on Map A be used primarily to produce hardwood timber ; and that it be reserved forest.

D3 (Homerton)

That the area (6,800 acres) indicated on Map A be used primarily to produce hardwood timber ; and that it be reserved forest.

The area covered by this recommendation consists of Allotments 13, 14, 15C, 15D, 57A, 58B, and 61B, Parish of Homerton ; Allotments 6, 6A, 6B, 7B, 8A (part), 10, 11, 12, 12A, 16, 20, 21, and 26, and the Allotment east and north of Allotment 23, Parish of Dunmore, and part of Allotment 8, Allotments 78, 81, 82, 83, and 86, and the area east of 80B, Parish of Bessiebelle.

D4 (Narrawong)

That the area (4,250 acres) indicated on Map A be used primarily to produce hardwood timber ; and that it be reserved forest.

D5 (Hotspur)

That the area (15,000 acres) indicated on Map A be used primarily to produce hardwood timber ; and that it be reserved forest.

D6 (Strathdownie)

That the areas (2,020 acres) indicated on Map A be used primarily to produce hardwood timber, and that they be reserved forest.

This recommendation refers to Allotments 25 and 54 of Section B, the public land north of Allotment 35A of Section B, and Allotment 56 of Section B, Parish of Wilkin ; the public land west of Allotment 1, Parish of Tooloy ; the public land west of Allotment 27, Parish of Tullich; and Allotment 26A, Parish of Nagwarry.

E. SOFTWOOD TIMBER PRODUCTION

The report on the south-west study area deals with the national case for an expanded softwood planting programme, and with some criticisms of that programme. It shows that Australia imports, and will continue to import, large amounts of wood and wood products, and that many of these imports could be grown in this country. Points of contention are the level of future Australian consumption of wood and wood products, and the relative efficiencies of importing and home production.

The southern Victorian-South Australian borderland has had a successful complex of softwood-based industries for many years. The area is favoured by suitable soils, adequate rainfall, and flat terrain, and the existing large plantation resource and complex of wood-using industries make plantation expansion in the region economically attractive. The softwood industry has an important influence upon regional employment and economic growth. These factors, and the continuing strong demand for wood and wood products, justify the allocation of some public land to softwood-growing in this area.

However, the advantages of softwood production must be weighed against the loss of scenic values and native flora and fauna populations from areas cleared for plantations. In the following section, recommendations designed to minimize the impact of softwood expansion on the environment specify that some planting be carried out on purchased private land, and that plantations be planned to include linked areas of native vegetation.

Planning Period

The following recommendations provide land for State and private softwood planting until 1981. This year was selected to coincide with a review of the Commonwealth-State Softwood Forestry Agreement. Land to meet possible requirements after 1981 is available as uncommitted land and hardwood areas, and could be allocated to softwood-growing after 1981 if justified by conditions at that time.

Purchase of Private Land

The Council believes that softwood plantation expansion should incorporate substantial areas of purchased private land as well as public land. Accordingly, the area of public land allocated to State and private plantings up to 1981 is less than the total requirements.

Wherever possible, the public land to be used for softwood planting has been located where it can be integrated with suitable private land to form compact blocks of plantation.

Plantation Planning Guidelines

The impact of large plantations of softwoods on the native environment can be lessened by retaining selected areas of native vegetation. The guidelines set out below apply specifically to plantation establishment on public land in south-western Victoria.

They have been adapted from those prepared and used by the Forests Commission. Obviously, planning plantations in this way increases their gross area—following these guidelines, about 20 per cent. of the gross area of a plantation should be retained as native forest. Allowances for this have been made in calculating the areas allocated to softwood planting.

Forests Commission Plantations

The Forests Commission's requirements, as outlined in their submission, are for sufficient land to allow the Rennick Plantation to expand to 20,000 acres at the rate of 500 acres per year, and the Portland Project to expand to 40,000 acres at the rate of 1,000 acres per year. At present these two projects contain established areas of 11,000 acres and 13,600 acres respectively.

Rennick Plantation

The requirements of the Rennick Plantation to 1981 are about 4,500 acres net. Specific recommendation E1 below, provides sufficient public land to meet these requirements, taking into account the use of areas cleared but not yet planted, the purchase of private land, and the retention of areas of native forest within the plantations. The total area of public land allocated to softwood production up to 1981 in the Rennick Plantation, not including land already purchased by the Commission for softwood planting, is 4,500 acres.

Portland Project

The requirements of the Portland Project to 1981 are about 9,000 acres net. Specific recommendations E2–E6 provide sufficient public land to meet these requirements, taking into account the use of land cleared but not yet planted, purchased private land, and the retention of large areas of native forest within the plantations. The total area of public land allocated to softwood production up to 1981 in the Portland Project, not including land already purchased by the Commission for softwood planting, is 8,100 acres.

Non-Government Plantations

Specific recommendations E7–E9 allocate a total of 10,000 acres of public land for expansion of non-government softwood plantations during the planning period to 1981. (Note that recommendation E10 does not allocate more land to softwood production—it simply recommends that the leasing arrangements for certain lands carrying maturing plantations be changed). The area recommended meets only part of the requirements submitted to the Council by non-government organizations. This is in line with the Council's belief that substantial plantings should be carried out on purchased private property. Subject to suitable land being available, the allocation of public land to a private company may be considered for consolidation purposes if the company undertook a planting programme on purchased private land.

The Council believes that any company leasing public land for softwood production must be responsible for the maintenance of the productivity of the land over two or more forest rotations.

The Council suggests that the recommended areas of public land should be leased, that rentals should be commensurate with the market value of the land in its present condition, and that the rentals should be reviewed periodically.

Policy Recommendations

E(i) That public land should be made available for softwoods, provided the planning and establishment of plantations follow the guidelines suggested below. Council notes that the Forests Commission is currently using adequate and similar guidelines.

No continuous plantation unit should exceed 3,000 acres without obvious break-up by retained areas of native forest.

Large samples (200–500 acres) of all vegetation types in the area should be retained. Where possible, several types may be combined in one unit for retention. 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 native fauna. 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 its entirety in any one year.

Native vegetation should be retained for a minimum width of 5 chains from the banks of streams and from swamps larger than 2 acres, and for 1 chain around small swamps. This is in line with other Council recommendations that all wetland 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 native birds and animals.

Strips of native forest 5–10 chains wide should be retained along highways and main roads. On minor through roads there should be plantings, preferably of native and local species, to maintain a visually diverse environment. Where plantations are to be established adjoining private property, consideration should be given to reasonable requests by the land-owners for the retention of native vegetation along boundaries.

Specific Recommendations

E1 (Rennick)

That the areas (4,500 acres) indicated on Map A be used for softwood timber production and that they be reserved forest.

This recommendation covers two separate areas. The first, of 1,750 acres, is located in the Parish of Malanganee. The second, of 2,750 acres, consists of Allotment 15, Parish of Palpara, and Allotments 38, 39, 43, 44, 45A and 48, and an area cleared but not planted south of these Allotments, Parish of Wanwin.

The Forests Commission has purchased Allotments 43, 46, and 46A, Parish of Wanwin (910 acres).

E2 (Kentbruck)

That the area (800 acres) indicated on Map A be used for softwood timber production, and that it be reserved forest.

This area has been cleared, but not planted.

E3 (Mount Richmond)

That the area (1,000 acres) indicated on Map A be used for softwood timber production, and that it be reserved forest.

The boundaries of this area as shown on Map A include 700 acres (Allotments 3, 5, and 6, of Section 6, Parish of Mouzie) purchased by the Forests Commission.

E4 (Cobboboonee)

That the areas (5,100 acres) indicated on Map A be used for softwood timber production, and that they be reserved forest.

The north-westernmost area includes 1,311 acres of land purchased by the Forests Commission.

E5 (Weecurra)

That the areas (700 acres) indicated on Map A be used for softwood timber production, and that they be reserved forest.

E6 (Wilkin)

That the area (500 acres) indicated on Map A be used for softwood timber production, and that it be reserved forest.

E7 (Weecurra)

That the area (600 acres) indicated on Map A and shown in detail on Plan No. 13 be made available for softwood timber production under the provisions of the *Land (Plantation Areas) Act 1966*.

E8 (Tooloy)

That the areas (6,800 acres) indicated on Map A and shown in detail on Plan No. 14 be made available for softwood timber production under the provisions of the *Land (Plantation Areas) Act 1966*.

E9 (Roseneath)

That the areas (2,600 acres) indicated on Map A and shown in detail on Plan No. 15 be made available for softwood timber production under the provisions of the *Land (Plantation Areas) Act 1966*.

E10 (Existing plantations)

That the areas (1,027 acres) indicated on Map A be leased for softwood timber production under the provisions of the *Land (Plantation Areas) Act 1966*.

These areas are Allotment 9B, Parish of Warrain (59 acres), and Allotments 95 and 95A, Parish of Nagwarry (968 acres). Occupancy of the land for softwood production was granted and the area planted with trees before the enactment of the *Land (Plantation Areas) Act 1966*. This recommendation places the leasing of this land under the appropriate Act.

F. AGRICULTURE

Council has carefully considered the submissions received regarding the use of public lands for agricultural production. In particular, it has noted the detailed submissions by the Shire of Portland. However, it does not recommend the agricultural development of additional large areas of public land at this time.

Farms in the study area mainly produce wool, meat, and dairy products. The alienated lands of Victoria already have adequate potential to meet increased demand for these products. Moreover, evidence available from Department of Agriculture studies on private farms and at the Pastoral Research Station, Hamilton, indicates that scope for substantial increases in productivity exists both in the study area and throughout the rest of the Western District.

In the study area, the present level of achievement of potential production varies greatly between individual farms. This variation is influenced by personal, economic, and technical factors. While some aspects of pasture management, animal husbandry, and health require further study, scientific knowledge cannot be regarded as a major factor limiting productivity over most of the area.

The growth of Portland will be related to the development of the agricultural and timber industries of the hinterland. However, agricultural production could, if necessary, be readily increased through the more intensive use of the existing 1,150,000 acres of private land rather than the addition of 20-30,000 acres of "new" farmland. It has been suggested that land development costs were overstated in the descriptive report, but even acceptance of the alternative figures proposed would not alter the general conclusion reached above.

In these circumstances, the release of additional public land for agriculture is not warranted at present. However, an exception to this generalization is the Rural Finance and Settlement Commission project at Palpara, where 7,000 acres have been sown to pasture in recent years.

It is recognized that in this study area some small areas of public land present management problems to government and to neighbouring landholders. The Council does not oppose the alienation of these areas, provided it can be shown that public interests would not be harmed and that the economic performance of nearby farms would be improved.

Specific Recommendations

- F1** That the land at Palpara (as shown on Map A) be made available in viable units for livestock production by the Rural Finance and Settlement Commission when pasture consolidation and other development is complete.
- F2** That the land described in Schedule 1 below (approx. 3,400 acres) be alienated for agriculture. Some of the smaller areas within this category are not shown on Map A.

Precise notice of the land that becomes available for purchase will be made by the Department of Crown Lands and Survey. It is intended that this land should form additions to present farms rather than new units.

With reference to section 5 (3) of the *Land Conservation Act* 1970, the Council is of the opinion that the best method of alienating the land in the Schedule is in accordance with the existing provisions of the *Land Act* 1958.

A total of 120,000 acres has been recommended for retention as uncommitted Crown land. About 15,000 acres of this is in the higher-rainfall, better agricultural country in the south of the study area ; more than 100,000 acres of similar land remains in other flexible land-use categories. If the demand for agricultural products out-grows the ability of the private lands of the State produce them, further consideration could be given to the provision of additional public land for agriculture.

SCHEDULE 1 LAND RECOMMENDED FOR ALIENATION.

PARISH	ALLOTMENT	AREA*
1 Bessiebelle	part Allotment 8	200
2 Drik Drik	part Allotment 13, 14 of Section A	200
3 Glenelg	part Allotment 45	20
4 Gorae	Adjacent to Allotment 8A of Section 3	16
5 Heywood	Allotment 5D of Section 5 and part Allotment 14 of Section 6	52
6 Kentbruck	west of Allotment 8 of Section 5	51
7 Kentbruck	part SCA plots and adjacent land north of Allotment 7	40
8 Mouzie	Allotment 40 of Section 9	230
9 Mouzie	land north west of Allotment 6A of Section 10	200
10 Mumbannar	Allotment 64	122
11 Mumbannar	Allotment 62B	65
12 Mumbannar	Allotment 44C	280
13 Myamyn	Allotment 6 of Section 16	9
14 Myamyn	Allotment 3A of Section 16	5
15 Nangeela	Allotment 36 of Section 6	30
16 Roseneath	Allotment 6A	260
17 Tullich	Allotment 32 (water res.)	50
18 Wanwin	Allotment 33	353
19 Werrikoo	Strathdownie Swamp	350
20 Wataepoolan	Allotment 17, 18, 19 and adjacent	800
21 Wataepoolan	reserved forest adjacent to Allotment 9B	56
TOTAL		3,389

* Areas are approximate, especially when part of an allotment is recommended for alienation.

G. WATER PRODUCTION

Part of the domestic water supply for the town of Casterton and the supply planned for the town of Merino tap shallow groundwater aquifers beneath public land. While these aquifers provide a cheap source of high-quality water, their shallowness and unconfined nature present several problems in the management and conservation of supplies.

The rate of recharge into these aquifers can be affected by activities within the intake area, and drastic changes to the nature of the vegetation or extensive drainage schemes can reduce the quantity of water soaking into the aquifers. Dumping garbage or sewage or using agricultural chemicals within an intake area can pollute the groundwater supplies.

The following recommendations cover the intake areas on public land for the two water supply schemes. Both intake areas include some freehold land, and it may be desirable after further investigation to proclaim water supply catchments covering private and public land. Most uses are compatible with groundwater conservation in intake areas, with the exception of waste disposal, use of agricultural chemicals, clearing, and drainage.

Specific Recommendations

G1 (Drajurk)

That the area (4,900 acres) indicated on Map A and shown in detail on Plan No. 16 be used to safeguard the quality and quantity of the groundwaters tapped to supply the town of Casterton, and that it remain reserved forest.

G2 (Weecurra)

That the area (3,700 acres) indicated on Map A be used to safeguard the quality and quantity of the groundwaters tapped to supply the town of Merino, and that it remain unoccupied Crown land.

This area includes Allotments 1 of Section 16, 3 of Section 24, 3, 3A, and 2C of Section 23, 1 and 2 of Section 21, 1 of Section 18, 4 of Section 19, and 2 of Section 20, Parish of Mocamboro.

H. MINERALS AND STONE

Materials covered by the definition of "stone" in the *Extractive Industries Act* 1966 are widespread in the study area. These materials are building stone, basalt, granite, limestone, quartz and calcareous sands, gravel, peat, and clay. Economic deposits of "minerals" as defined in the *Mines Act* 1958 (metallic minerals, gems, and so on) are not known to occur in the study area, but may eventually be found by detailed exploration in the northern part of the area.

The extractive industries materials are not well distributed in relation to the main economic centres. Contrary to popular opinion, it is not possible at this stage to reserve areas of public land that should be set aside to meet future requirements for "stone". This is chiefly because these materials characteristically show great lateral and vertical variability, and locating areas in which the stone will meet all of the necessary physical and chemical requirements for that particular material (e.g. the exacting specifications laid down by the Country Roads Board for road-making materials) may be both difficult and costly. Exploration for these materials commonly involves lengthy programmes of drilling and testing, and can only be justified where markets are guaranteed, for example near cities and major construction projects.

At present most of these materials are obtained from private land (mainly because the basalt and limestone areas attracted early settlement) and most of the future production will also come from private land. Although it is proposed that the Discovery Bay dune system be reserved for conservation and recreation, lime sands exist on uncommitted land behind Bridgewater Bay.

Other areas of public land will eventually be required for minerals and/or stone production, and it is important that as much land as possible remains in a form of tenure that will permit both exploration and extraction when and if this becomes necessary. It is a government responsibility to establish the existence and extent of the State's mineral resources, particularly those of a strategic nature, which would be of significance in a time of national emergency. It is important, therefore, that the reservation of conservation areas should not automatically exclude the opportunity for exploration for stone, 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.

Policy Recommendation

H(i) That existing stone extraction on public lands should be allowed to continue and that, where necessary, provision be made for reasonable extension into adjacent land potentially containing similar material. Extraction of "stone" and "minerals" should be subject to the approval and conditions specified by the relevant managing authority. Sufficient land should be reserved to provide buffer zones, in which no extraction is permitted, around areas from which "stone" will be extracted. All extraction sites should be reclaimed and revegetated.

I. LAND WITH NO PRIMARY USE

Multi-purpose Areas

The study area contains several areas in which the land is known to have capabilities for many uses, but where no single best use is evident. Rather, because the land has a variable nature and its potential for any one use is not high, it can sustain many forms of use. At present these areas are meeting many specific demands, and in some cases the total demand placed on an area for all products and services is quite high. For this reason a definite set of uses is recommended for them.

The uses include : conservation of flora and fauna, especially in wetlands ; open-space recreation (walking, duck-shooting, driving, nature study) ; hardwood timber production ; honey production ; gravel and sand extraction ; and grazing.

These uses modify the land, and each other, but while each use is either concentrated on a small area (e.g. duck- and snipe-shooting on swamps) or takes place at low intensity over a large area (e.g. hardwood timber production and open-space recreation) all the uses are compatible.

Large areas of land managed for many uses satisfy the diverse needs of the community, protect resources, and maintain the land in a flexible condition. As needs change and more information on resources is gathered, the emphasis placed on the different uses may change, and several major uses or one primary use may eventually be chosen.

Specific Recommendations

I1 (Narrawong)

That the area (7,500 acres) indicated on Map A be used to :

- (a) conserve flora, fauna, and landscape for the enjoyment of visitors
 - (b) provide opportunities for open-space recreation
 - (c) produce hardwood timber
 - (d) provide duck-shooting over the swamps during the open season
 - (e) produce honey
 - (f) produce gravel and sand—
- and that it remain reserved forest.

I2 (Stokes River)

That the area (14,500 acres) indicated on Map A be used to :

- (a) conserve flora, fauna, and landscape for the enjoyment of visitors
- (b) provide opportunities for open-space recreation
- (c) produce hardwood timber
- (d) provide duck-shooting over the swamps during the open season

- (e) produce honey
 - (f) produce gravel and sand—
- and that it remain unoccupied Crown land and reserved forest.

I3 (Drajurk-Roseneath-Bogalara)

That the area (74,800 acres) indicated on Map A be used to :

- (a) conserve flora, fauna, and landscape for the enjoyment of visitors
 - (b) provide opportunities for open-space recreation
 - (c) produce hardwood timber
 - (d) provide duck-shooting over the swamps during the open season
 - (e) produce honey
 - (f) produce gravel and sand
 - (g) provide grazing in selected areas—
- and that it remain unoccupied Crown land and reserved forest.

Uncommitted Land

In planning land-use, known resources are allocated to satisfy known or predicted demands. However, planners are aware that many changes in demand cannot be foreseen, and that resources themselves will change as exploration, investigation, and technology progress. For these reasons it is essential that flexibility be built into the planning system 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 major impact on the natural ecosystem) and by retaining as much land as possible in an uncommitted state. Such uncommitted land should normally have potential for several forms of use, and the main aim of management is to keep the land in a completely flexible condition, leaving open all options for future use. Land that has an agreed best use or uses at present should not be placed in the uncommitted category ; however, uncommitted land should be used to satisfy present needs, provided that this does not irrevocably change its character. Forms of land-use that may be permitted on uncommitted land include low-intensity timber production, honey production, and open-space recreation.

In cases where we have insufficient knowledge of the potential of land (especially for conservation and recreation purposes) and where there are few clear demands for products or services, the land should be placed in the uncommitted category. The Youpayang, Bogalara, and Kanawinka blocks are examples of this type of land and the Council recommends that in these areas further investigations, particularly faunal

surveys, be undertaken. On completion of these investigations, Council may make recommendations on the use of these areas. This may require revision of recommendation J1.

In these recommendations, more than 100,000 acres have been placed in the uncommitted land category. This acreage includes substantial areas of land of moderate to high potential for agriculture and softwoods, and other areas that may prove to have potential for recreation and nature conservation.

Specific Recommendation

- I4** That the land indicated on Map A (approximately 120,000 acres) be used to :
- (a) maintain the natural ecosystem in order to keep all options for future use open
 - (b) produce those goods and services required by the community that can be supplied without seriously reducing the ability of the land to meet future needs—

and that the land be held under section 36 of the *Land Act* 1958, and that it be Protected Forest as defined in the *Forests Act* 1958.

J. OTHER RECREATION AND CONSERVATION

Scenic and Recreation Reserve

A reserve has been set aside to provide for public recreation and protection of landscape in the southern part of the Bogalara block. Further study of the conservation potential of the remainder of the block (13,000 acres) may lead to the creation of a large conservation reserve in the future.

J1 (Bailey's Rocks)

That the area (1,270 acres) indicated on Map A and shown in detail on Plan No. 17 be used to :

- (a) provide opportunities for open-space recreation for large numbers of people
- (b) protect and conserve Bailey's Rocks for the enjoyment of visitors
- (c) protect fauna, particularly wombats, in the area—

and that the area be reserved under section 14 of the *Land Act* 1958.

Flora Reserves

These reserves are set aside to preserve particular species, associations, or formations of native plants for the enjoyment of the public. They are usually small (less than 1,000 acres).

J2 (Johnstone's Creek)

That the area indicated on Map A be used to preserve the plants in the valley of Johnstone's Creek, and that it be reserved under section 14 of the *Land Act* 1958.

This reserve contains the land within 5 chains of the banks of Johnstone's Creek, south of the Portland-Nelson Road. The gully of the creek is a specialized habitat, and contains several rare and interesting species.

J3 (Tooloy)

That the area indicated on Map A and shown in detail on Plan No. 14 be used to preserve the manna gum-silver banksia woodland formation and that it be reserved under section 14 of the *Land Act* 1958.

J4 (Roseneath)

That the area indicated on Map A be used to preserve pink gum (*Eucalyptus fasciculosa*) ; and that it be reserved under section 14 of the *Land Act* 1958.

This reserve consists of Allotment 67A, Parish of Roseneath, and the public land immediately to the north of this in the Parish of Dergholm.

Scenic Areas

These areas are set aside to preserve particular beauty spots or lookouts.

J5 (Hedditch's Hill)

That the area indicated on Map A be used as a lookout, and that it be reserved under section 14 of the *Land Act* 1958.

This recommendation refers to the existing reserve of 19 acres, which was surveyed by the Lands Department in Allotment 12, Parish of Kentbruck, in 1970.

Stream and Coast Frontages

These reserves fall into two categories—old reserves, usually $\frac{1}{2}$ –3 chains wide along streams and 1–20 chains wide along coasts, which lie between the stream or coast and alienated land, and reserves 15–20 chains wide created by recommendations in this report where blocks of public land abut onto streams.

J6 (Various throughout the study area)

- (i) That the areas shown on Map A be used to maintain the natural habitat for plants, wildlife and fish, and to provide opportunities for open-space recreation ; and that they be reserved under section 14 of the *Land Act* 1958.
- (ii) That water frontages be used to conserve native vegetation, especially trees, and to maintain the local character and quality of the landscape ; and that cultivation of the soil not be permitted.
- (iii) That where water frontages are subject to water frontage licences, the licensing legislation and regulations be amended so as to clearly provide for free public access to and use of water frontages for passive recreational purposes, such as fishing.

Glenelg River

The Council recommends that the Glenelg River reserve below the Lower Glenelg park remain permanently reserved for public purposes. However, the Council is of the opinion that the management of the reserve should follow the guidelines set out below.

- (i) The area should be used primarily for open-space recreation, and to maintain the local character and quality of the landscape.
- (ii) All occupancies for boatsheds and landings should be terminated by 1st January, 1985 or on the prior death of the occupant, and they should not be transferable.
- (iii) All boatsheds and shacks should be removed from the river reserve by 1st January, 1985.
- (iv) The occupancies for the Nelson Kiosk and the two hire-boat services currently operating in Nelson should be permitted to continue.

Bushland Reserves

These are small and often isolated areas of public land supporting a remnant of the local bushland. They are reserved to maintain some diversity in a predominantly agricultural environment.

J7 (Various throughout the study area)

That the areas indicated on Map A be used to help maintain the local character and quality of the landscape and that these areas be reserved under section 14 of the *Land Act* 1958.

This recommendation covers 14 areas, several of which contain features of geological interest, including caves. They are :

1. Allotment 62A, Parish of Mageppa
2. Allotments 15, 23, 25A, 36, and 36A, and the allotment lying between Allotments 15 and 23, Parish of Ganoo Ganoo
3. Allotments 34 and 50 of Section B, Parish of Kaladbro
4. Allotment lying north and west of Allotment 45E, Parish of Bahgallah
5. Allotments 4F and 4G, and Allotment lying south of 4G, Section 5, Parish of Digby
6. Allotment 20, Parish of Killara
7. Allotment 26, Parish of Malanganee
8. Allotment 18A, Parish of Mumbannar
9. Allotment lying north of Allotment 1, Section 1, Parish of Drik Drik
10. Allotment 34, Parish of Balrook
11. Allotment 8 of Section 2, Parish of Mouzie
12. Allotment lying between Allotment 33, Section A, and Spring Creek, Parish of Glenaulin
13. Allotment 5A, no section, Parish of Drumborg, and the reserve lying north of this in the Parish of Curracurt
14. A small area of natural vegetation near Hedditch's Hill in Allotment 12, Parish of Kentbruck.

Geological Monuments

The Council believes that features of geological or palaeontological interest (including caves) that are not within existing reserves should be preserved in areas specially set aside for this purpose.

However, in this study area the features on public land that would rank as geological monuments lie within proposed reserves.

O'Connells Swamp

A submission from a group in Casterton proposed a scheme for making O'Connells Swamp, in the Drajurk block, into a lake. The Council has no objection to this scheme, subject to the investigation and approval of the controlling authority.

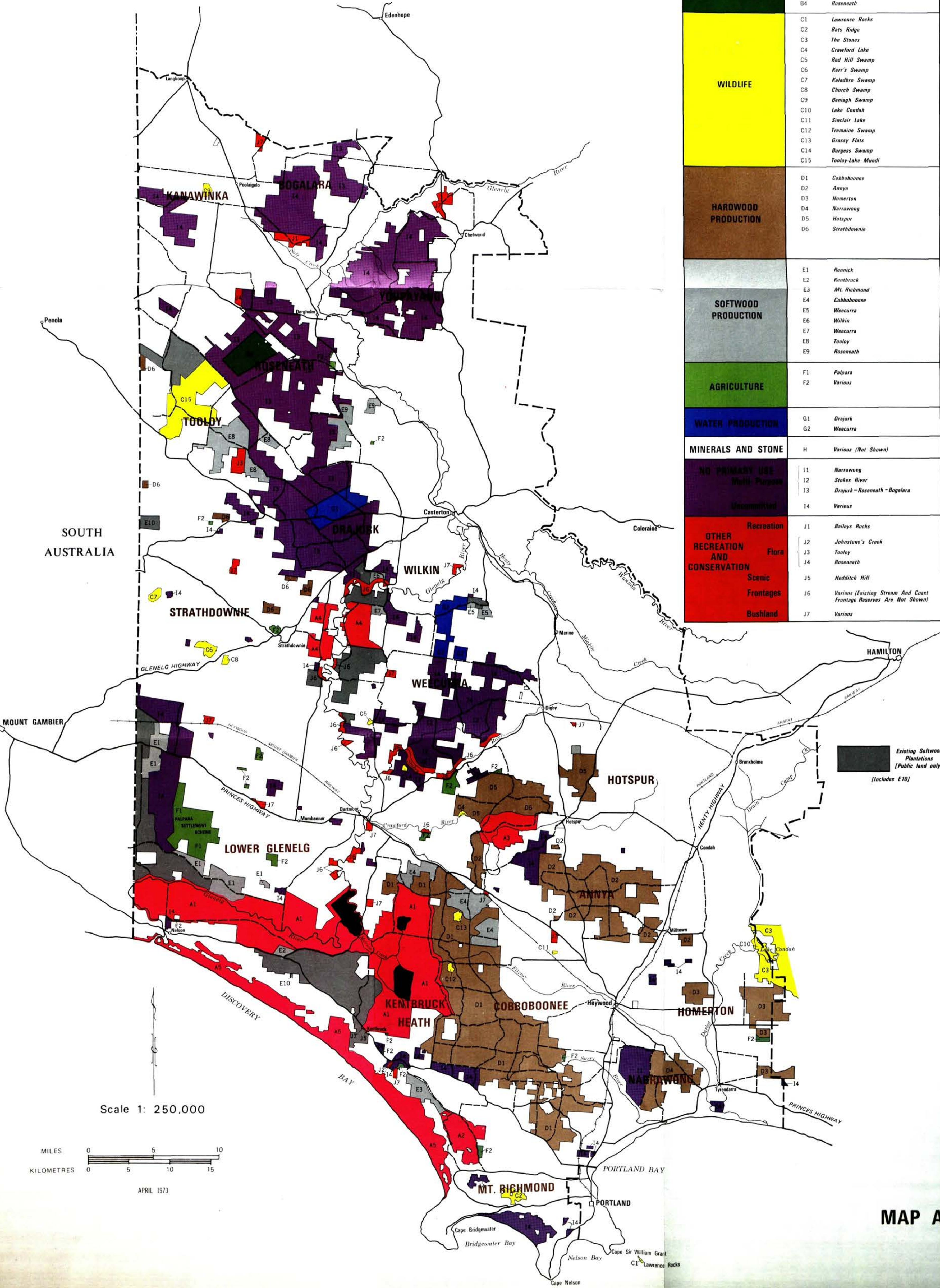
MAPS

FINAL RECOMMENDATIONS
SOUTH WESTERN STUDY AREA

LAND CONSERVATION COUNCIL
VICTORIA

LEGEND

PARKS	A1	Lower Glenelg
	A2	Mt. Richmond
	A3	Crawford River
	A4	Wilkin
	A5	Discovery Bay
Coastal Reserve	B1	Keegans Bend
	B2	Kentbruck Heath
	B3	Cobboboonee
	B4	Roseneath
WILDLIFE	C1	Lawrence Rocks
	C2	Bats Ridge
	C3	The Stones
	C4	Crawford Lake
	C5	Red Hill Swamp
	C6	Kerr's Swamp
	C7	Kaladbro Swamp
	C8	Church Swamp
	C9	Benagh Swamp
	C10	Lake Condah
	C11	Sinclair Lake
	C12	Tremaine Swamp
	C13	Grassy Flats
	C14	Burgess Swamp
	C15	Tooloy-Lake Mundi
HARDWOOD PRODUCTION	D1	Cobboboonee
	D2	Annya
	D3	Homerton
	D4	Narrawong
	D5	Hotspur
	D6	Strathdownie
SOFTWOOD PRODUCTION	E1	Rennick
	E2	Kentbruck
	E3	Mt. Richmond
	E4	Cobboboonee
	E5	Weecurra
	E6	Wilkin
	E7	Weecurra
	E8	Tooloy
	E9	Roseneath
AGRICULTURE	F1	Palpara
	F2	Various
WATER PRODUCTION	G1	Drayurk
	G2	Weecurra
MINERALS AND STONE	H	Various (Not Shown)
NO PRIMARY USE Multi Purpose Uncommitted	I1	Narrawong
	I2	Stokes River
	I3	Drayurk - Roseneath - Bogalara
	I4	Various
OTHER RECREATION AND CONSERVATION	J1	Baileys Rocks
	J2	Johnstone's Creek
	J3	Tooloy
	J4	Roseneath
	J5	Hedditich Hill
	J6	Various (Existing Stream And Coast Frontage Reserves Are Not Shown)
	J7	Various

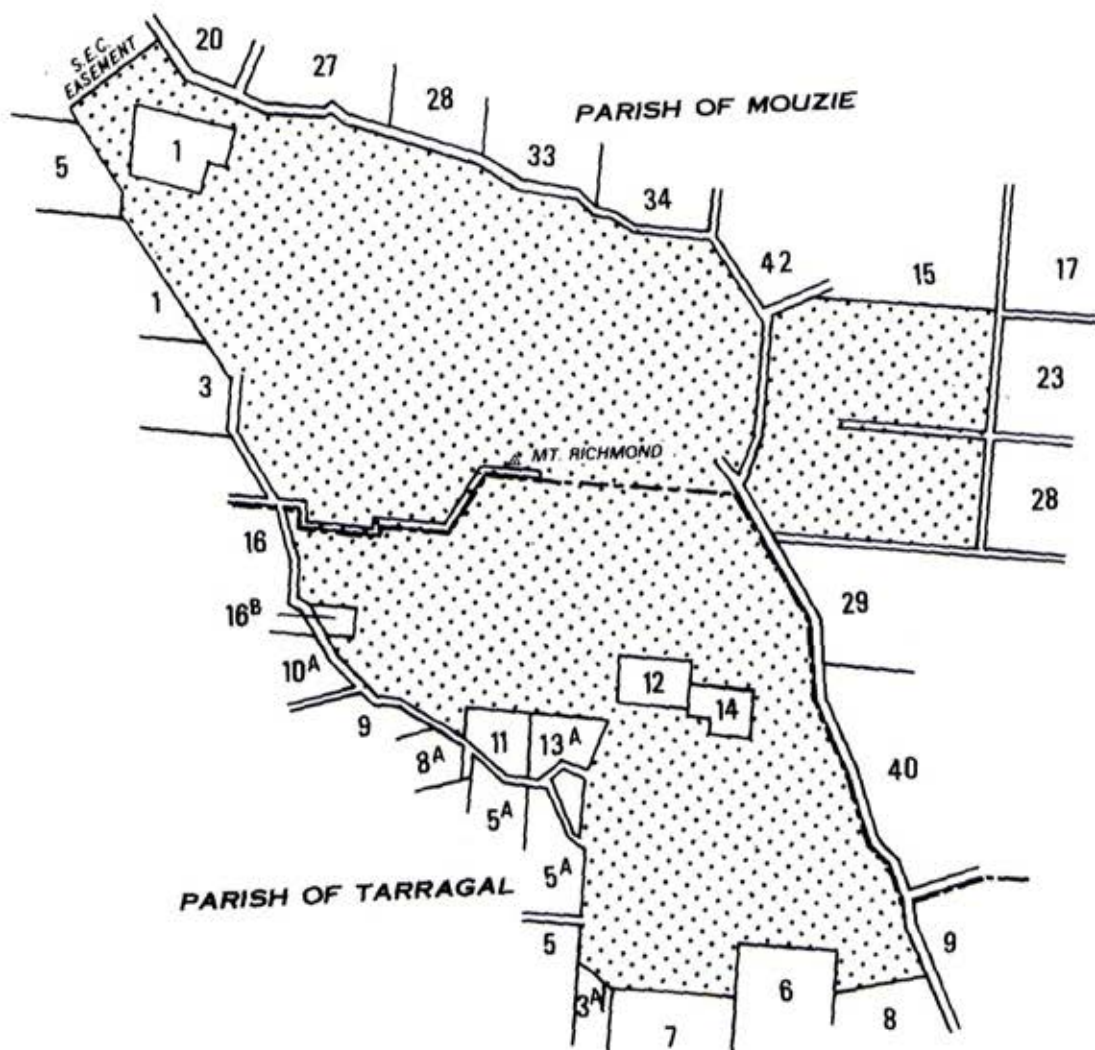


Existing Softwood Plantations
(Public land only)
[Includes E10]

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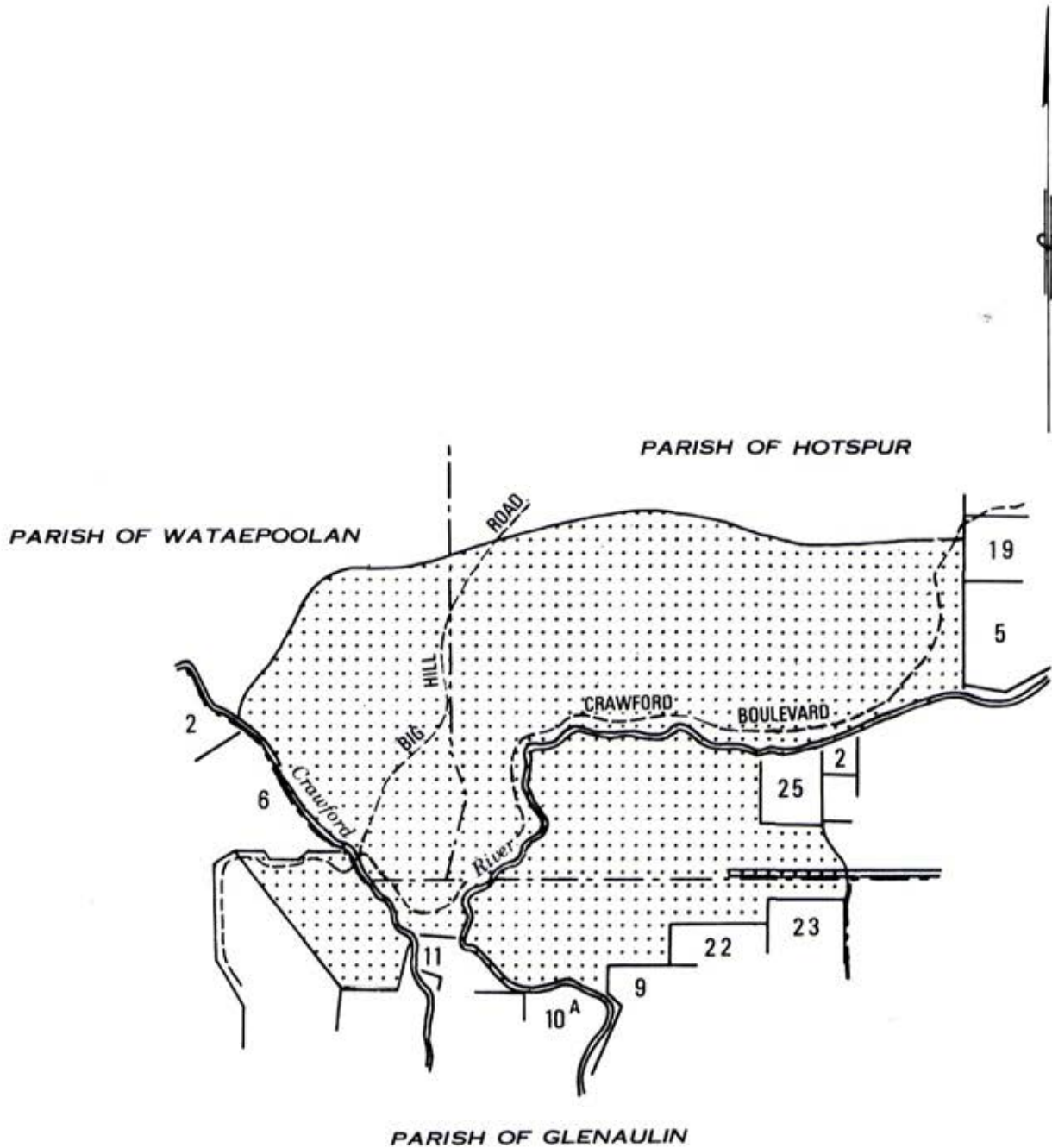
PARK. A2

MT. RICHMOND



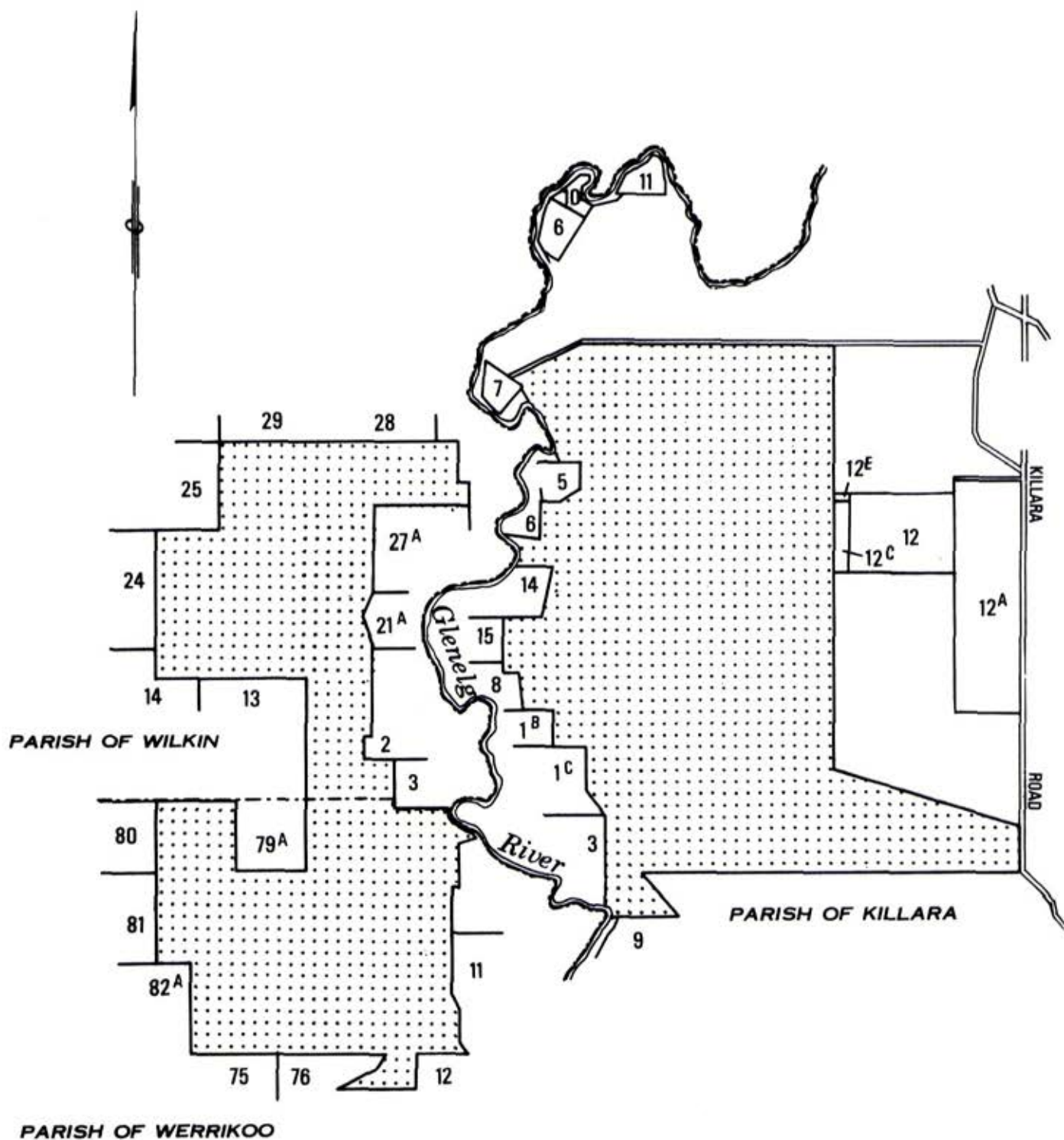
Scale: 60 Chains to 1 inch

CRAWFORD RIVER

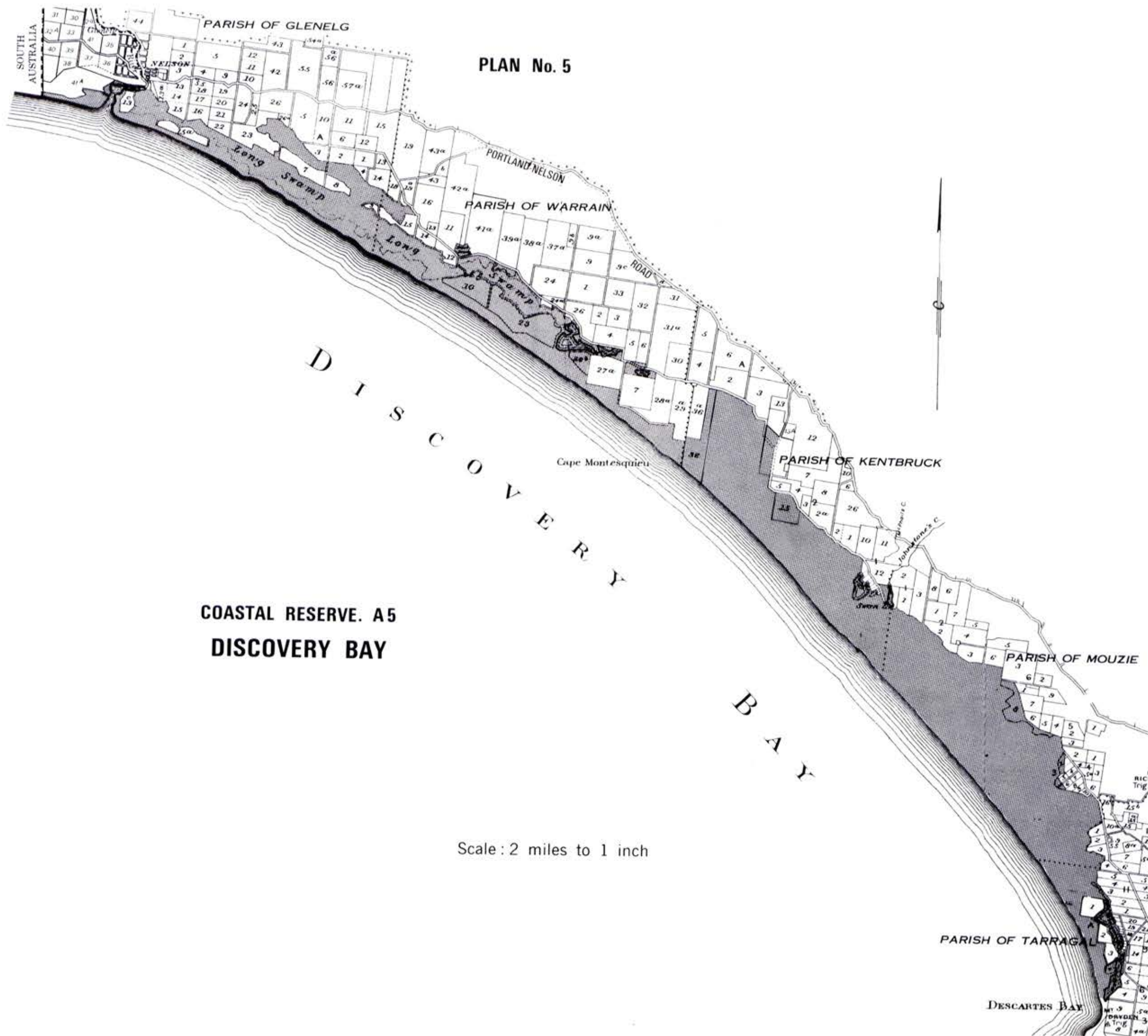


Scale 80 Chains to 1 inch

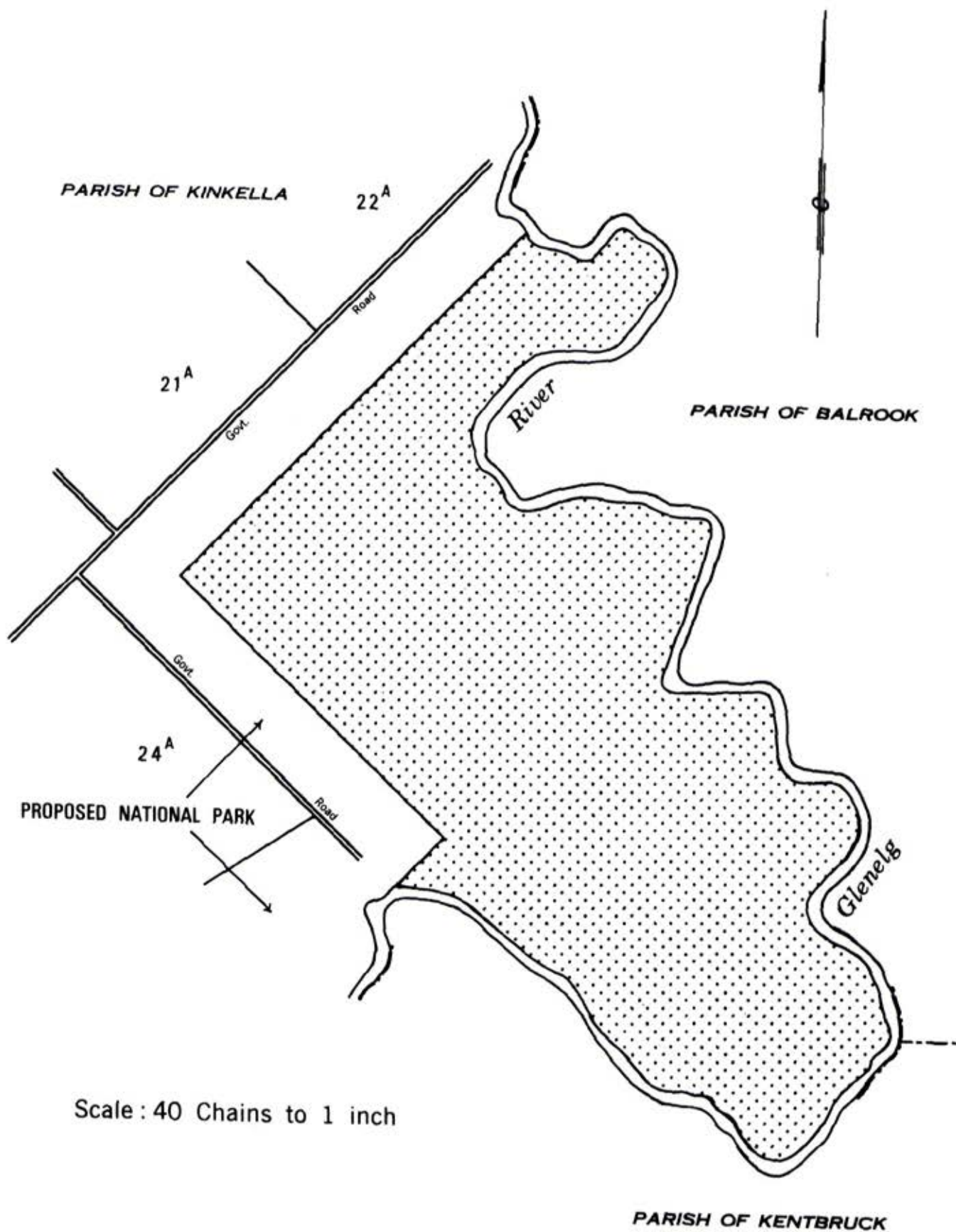
WILKIN



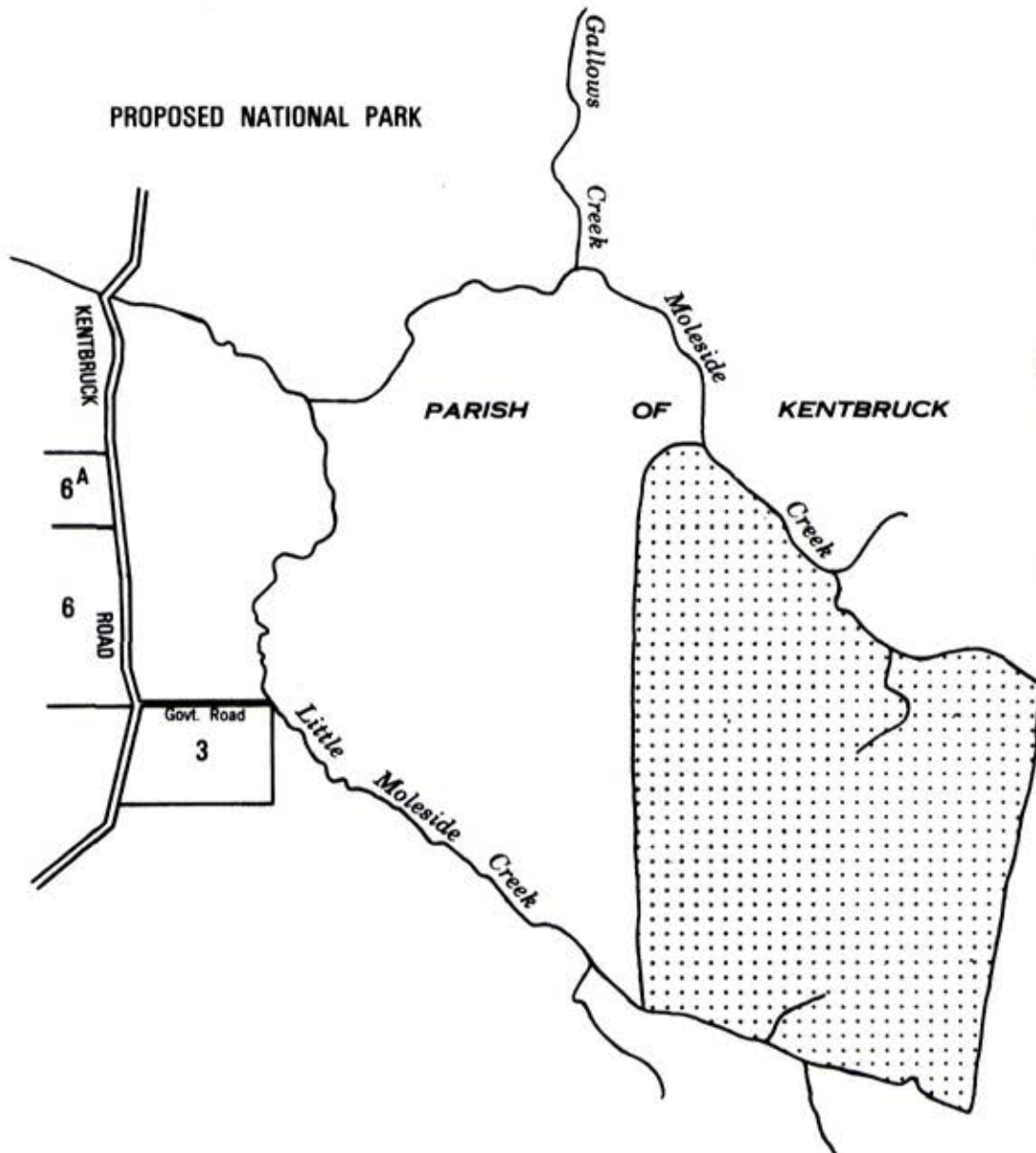
Scale 80 Chains to 1 inch



KEEGANS BEND

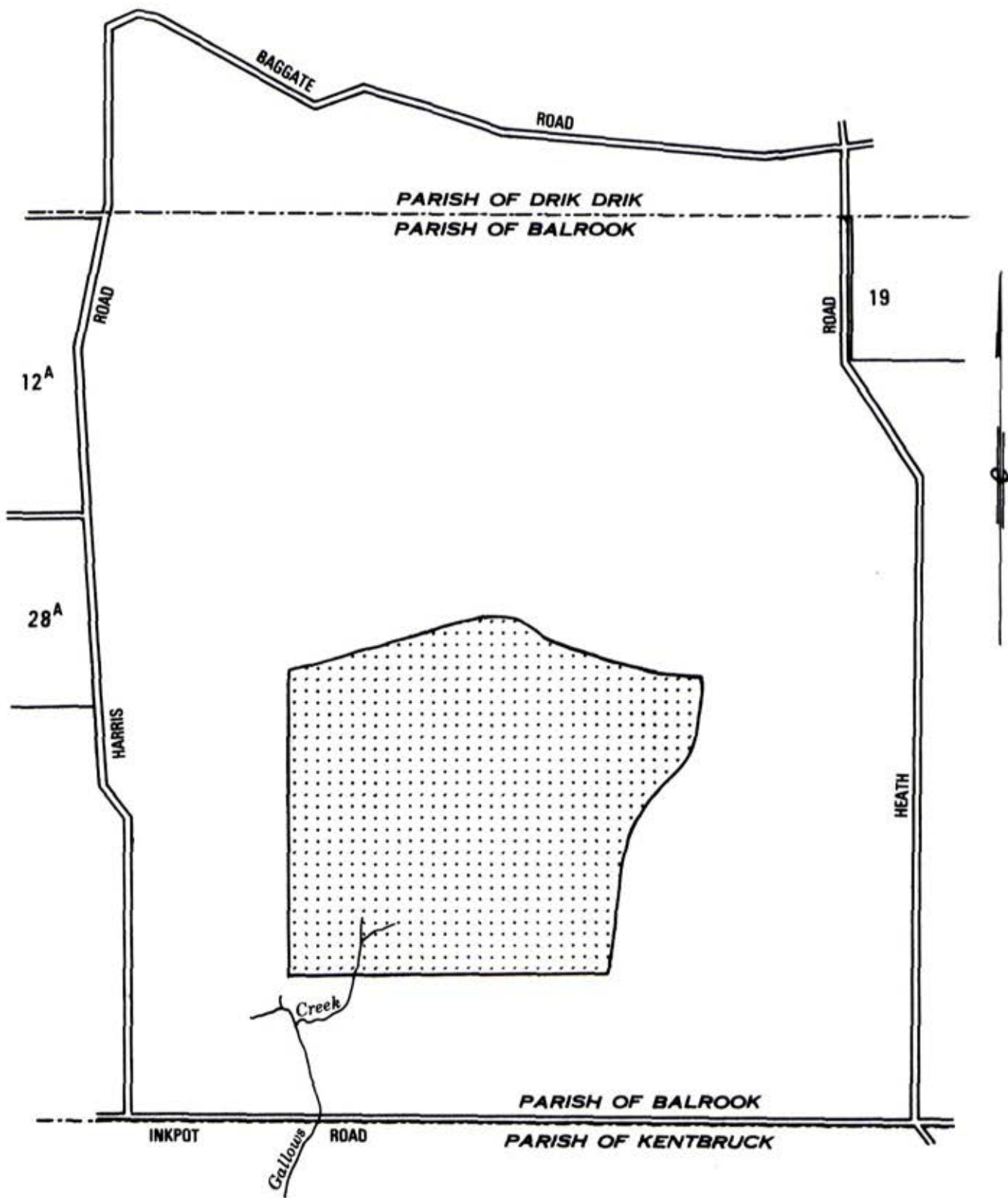


KENTBRUCK HEATH



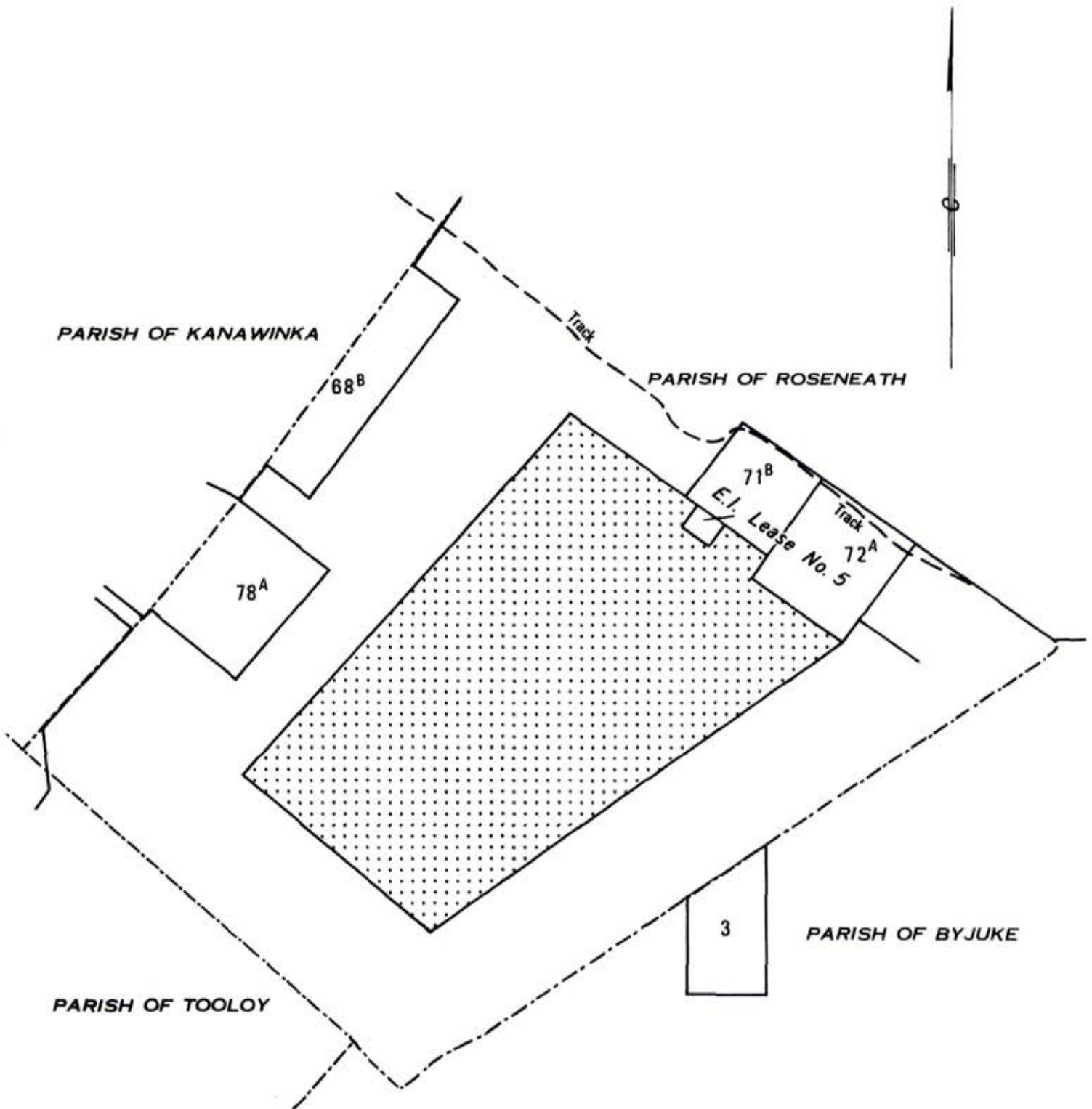
Scale : 60 Chains to 1 inch

COBBOBOONEE



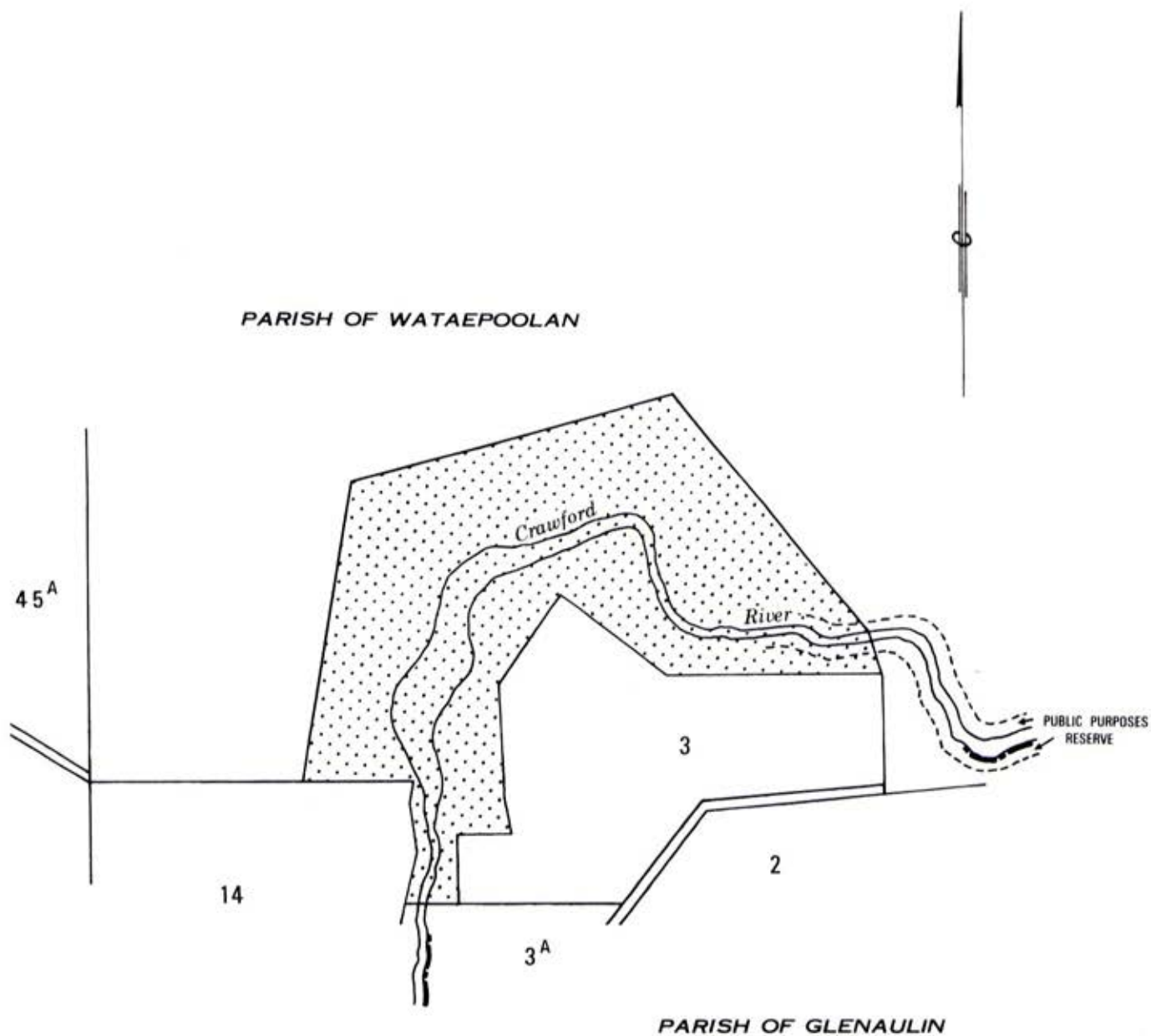
Scale : 40 Chains to 1 inch

ROSENEATH



Scale : 80 Chains to 1 inch

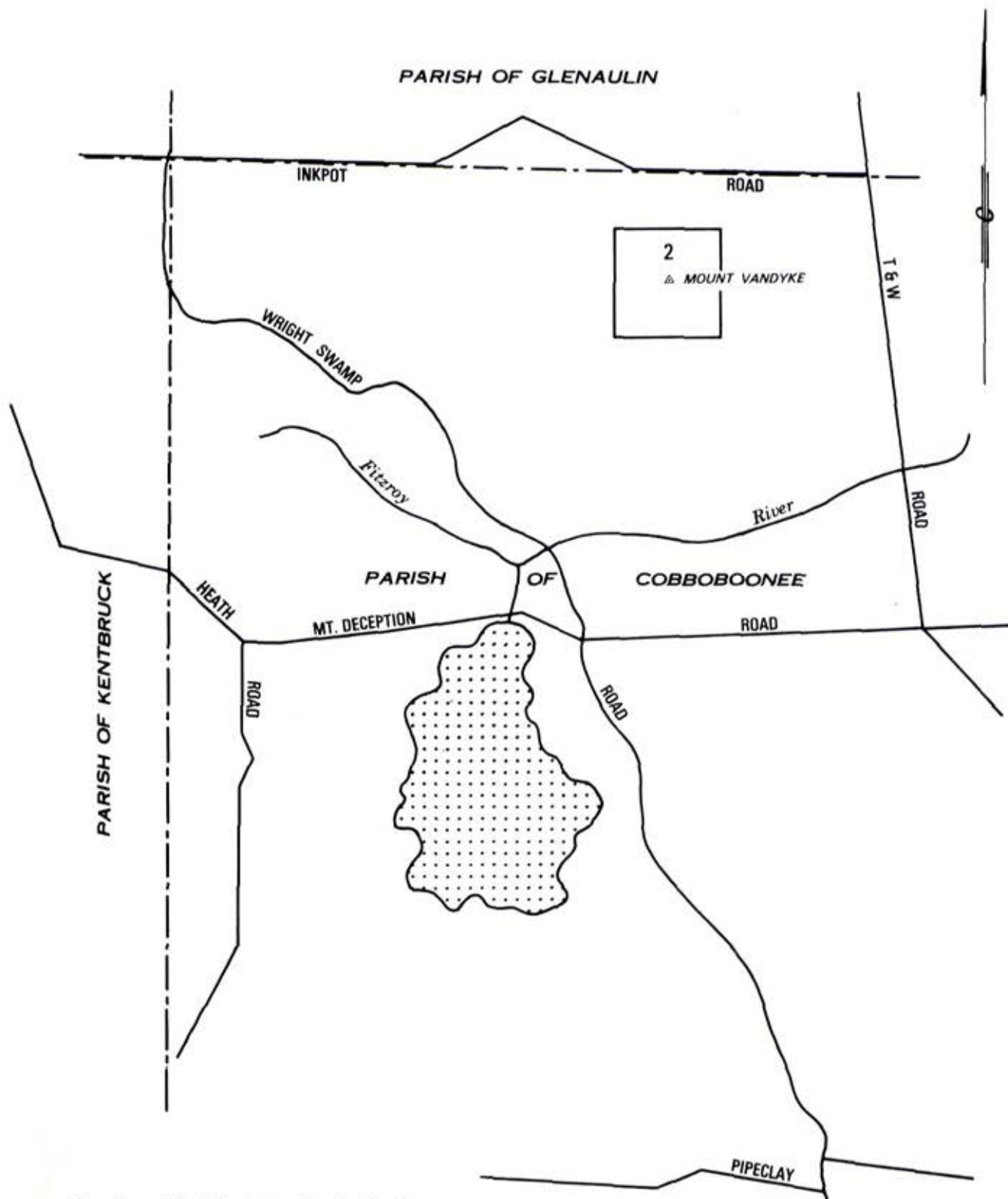
CRAWFORD LAKE



Scale : 20 Chains to 1 inch

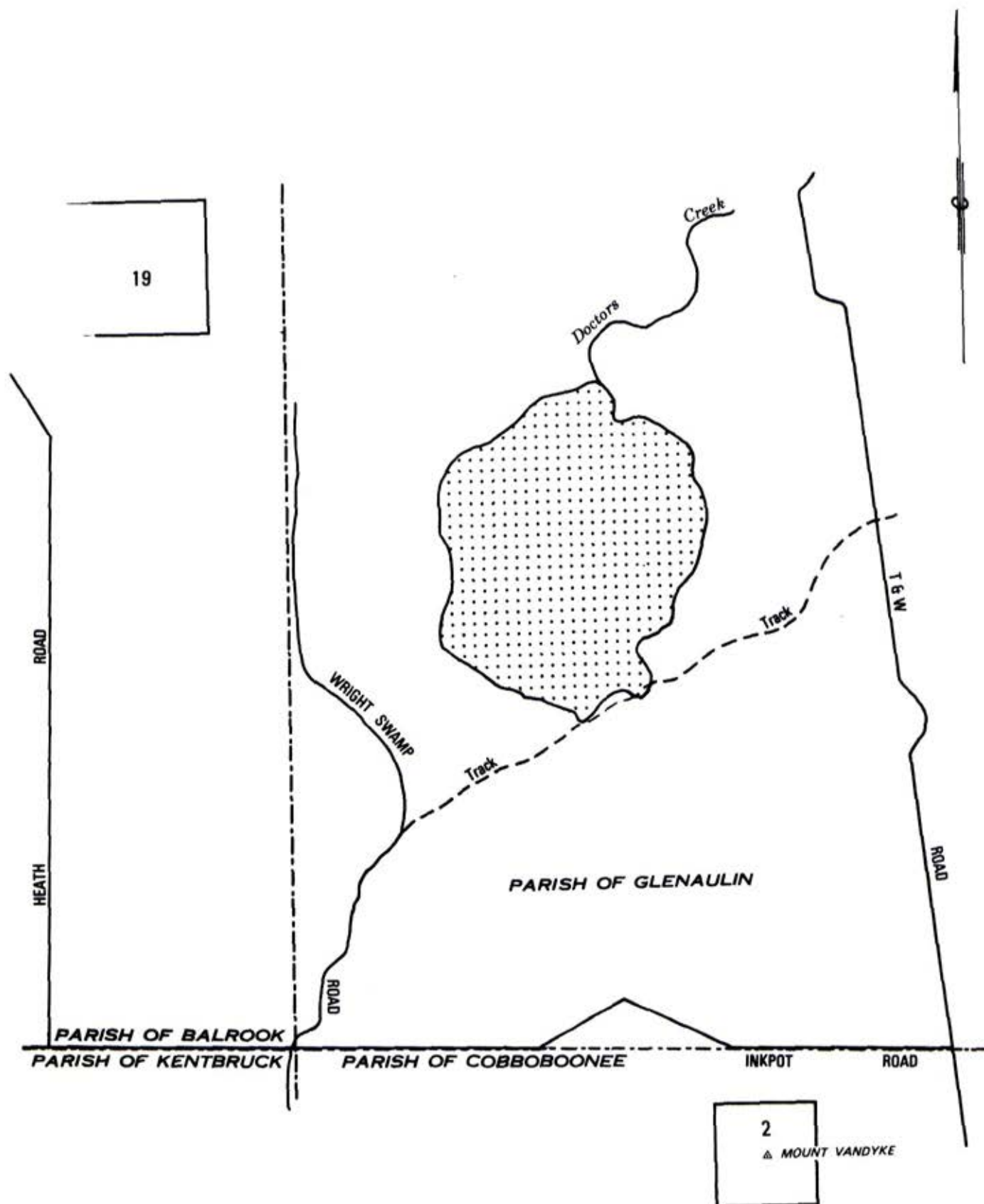
WILDLIFE RESERVE. C 12
TREMAINE SWAMP

PLAN No. 11



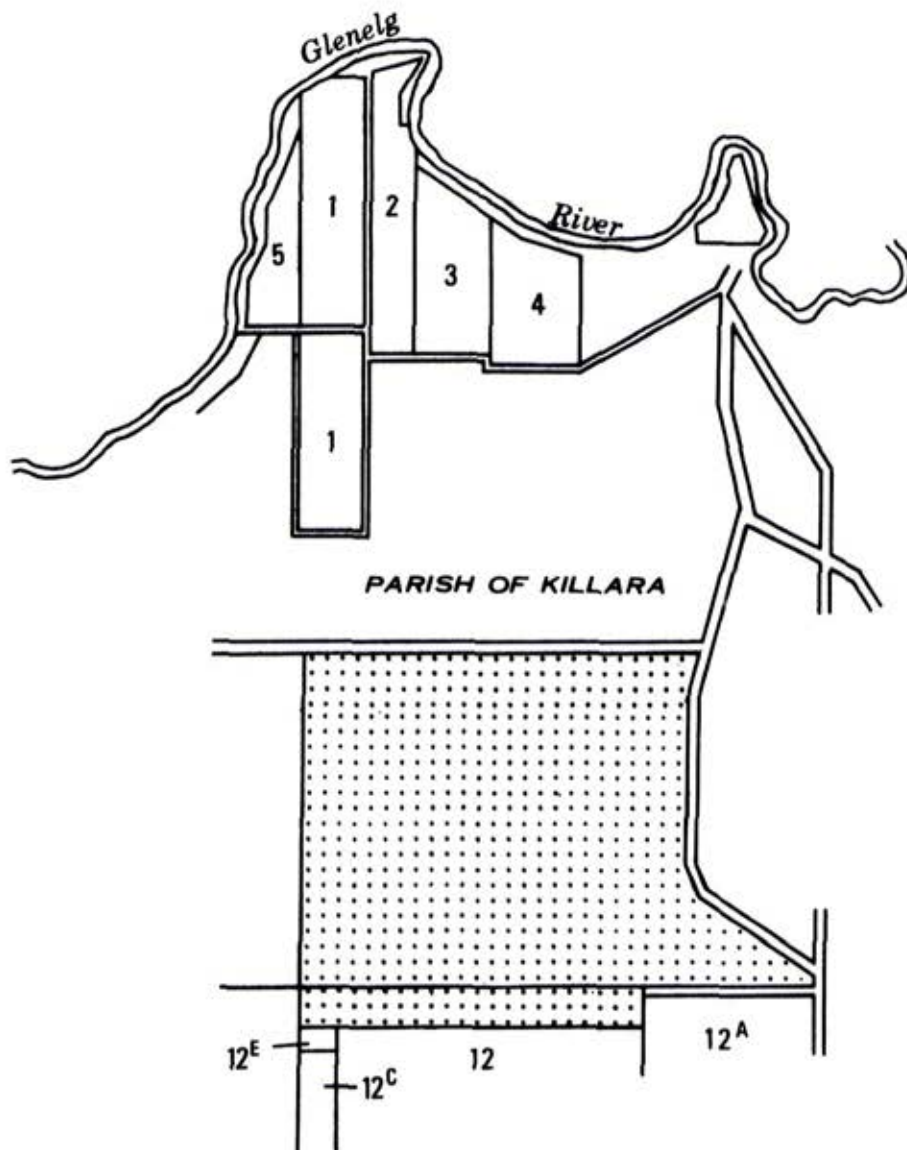
Scale: 40 Chains to 1 inch

GRASSY FLATS



Scale : 40 Chains to 1 inch

WEECURRA



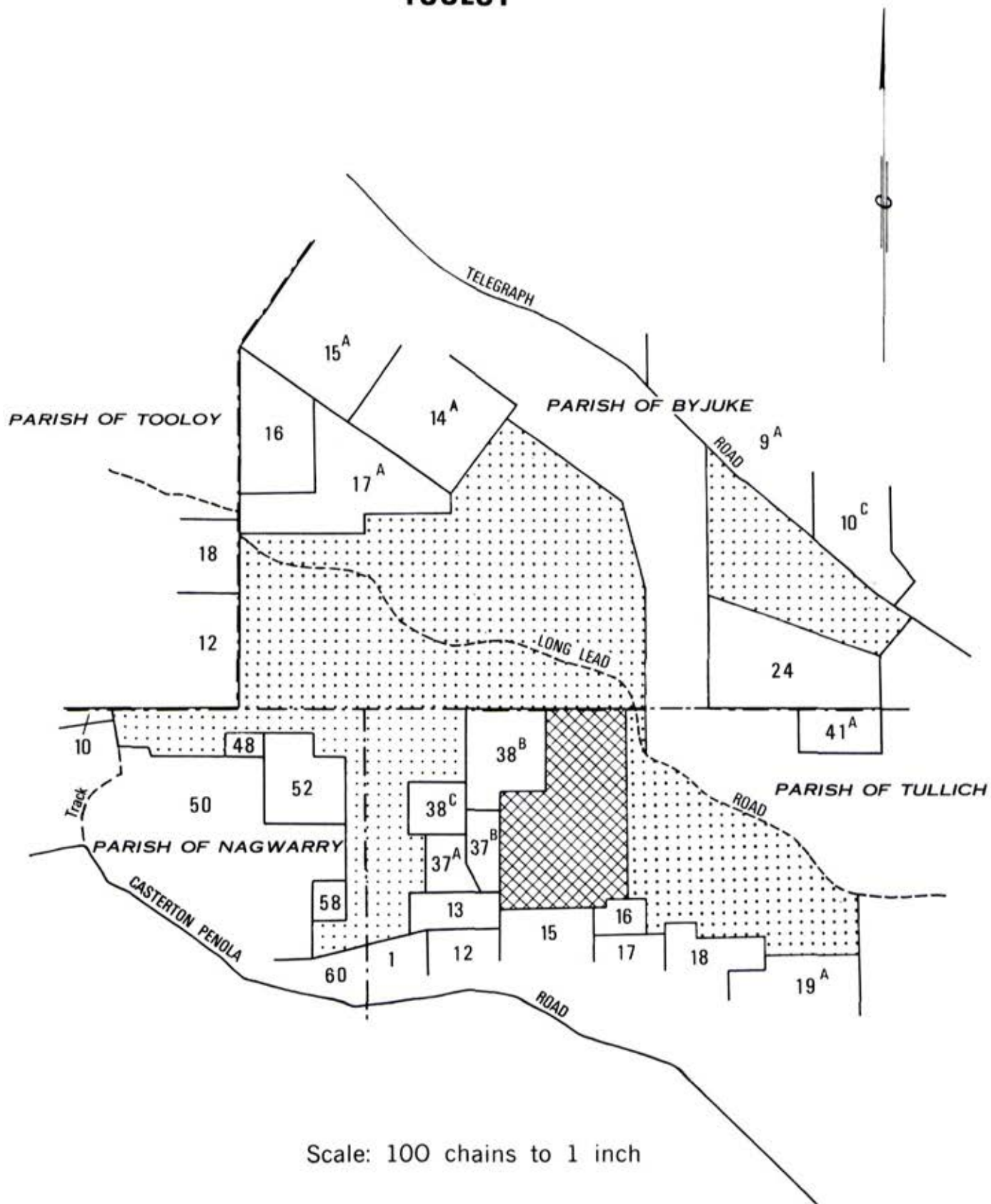
Scale : 40 Chains to 1 inch

 **SOFTWOOD PRODUCTION AREA. E8**

PLAN No. 14

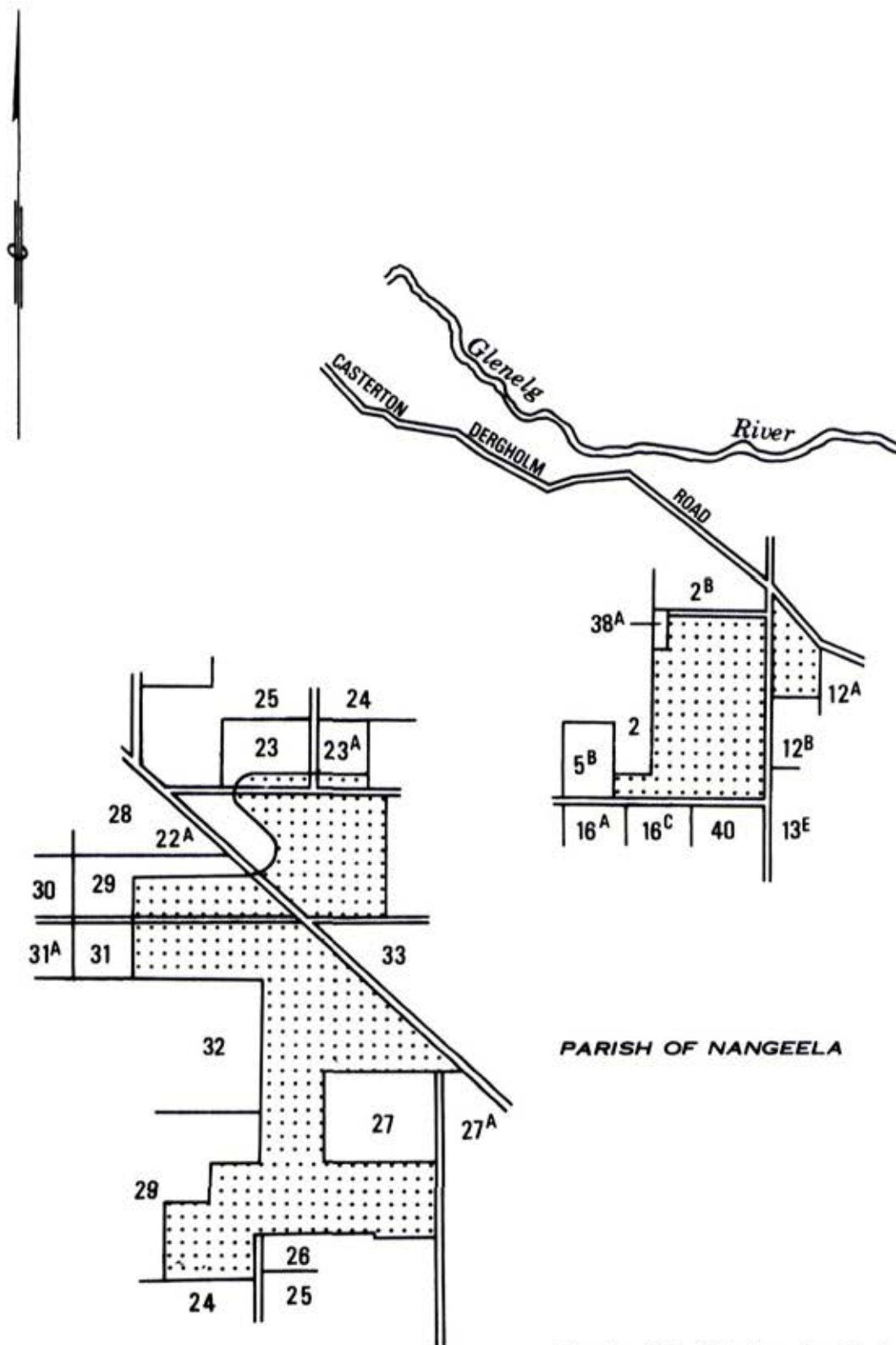
 **FLORA RESERVE. J3**

TOOLOY



SOFTWOOD PRODUCTION AREA. E9
ROSENEATH

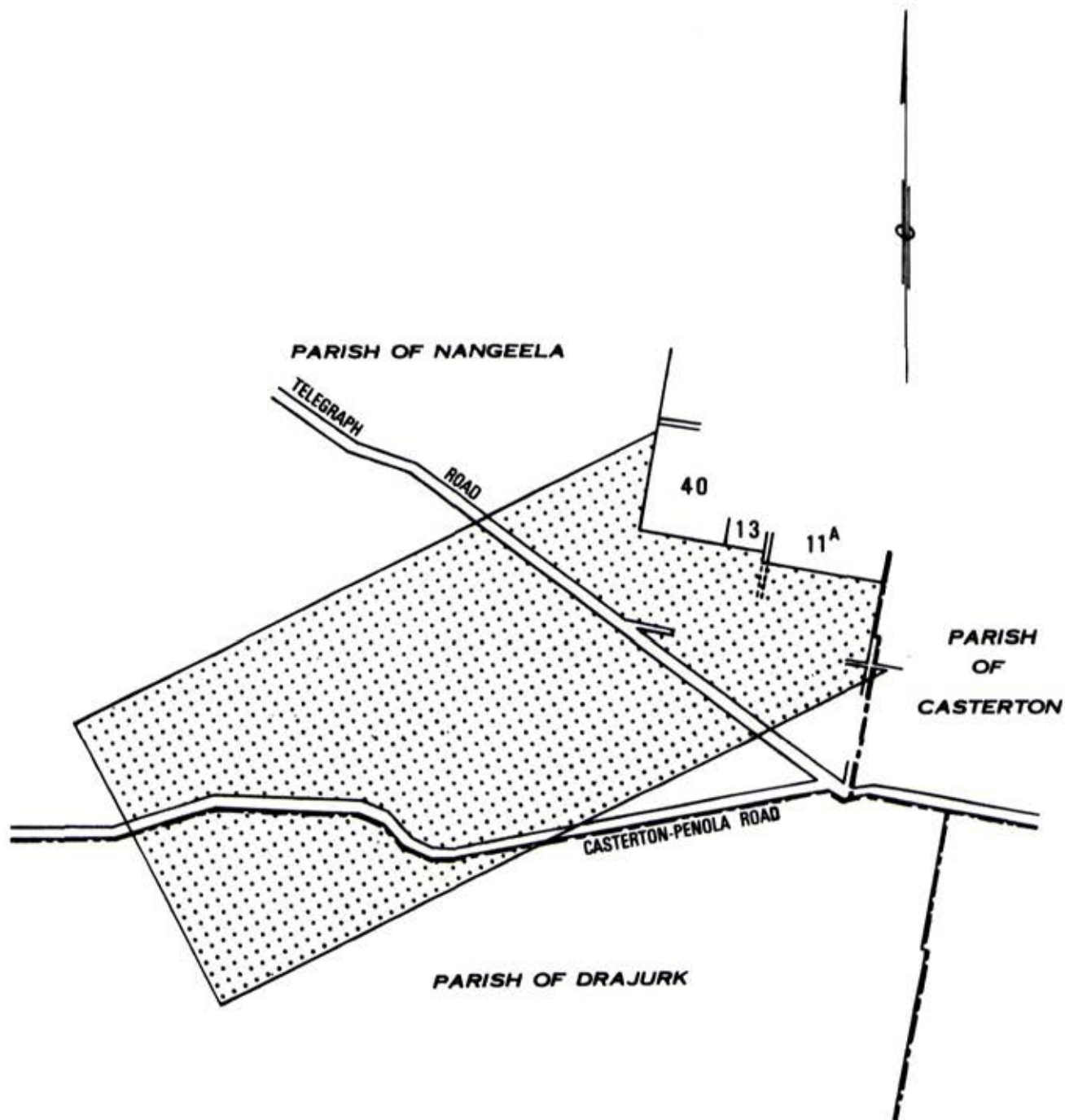
PLAN No. 15



PARISH OF NANGEELA

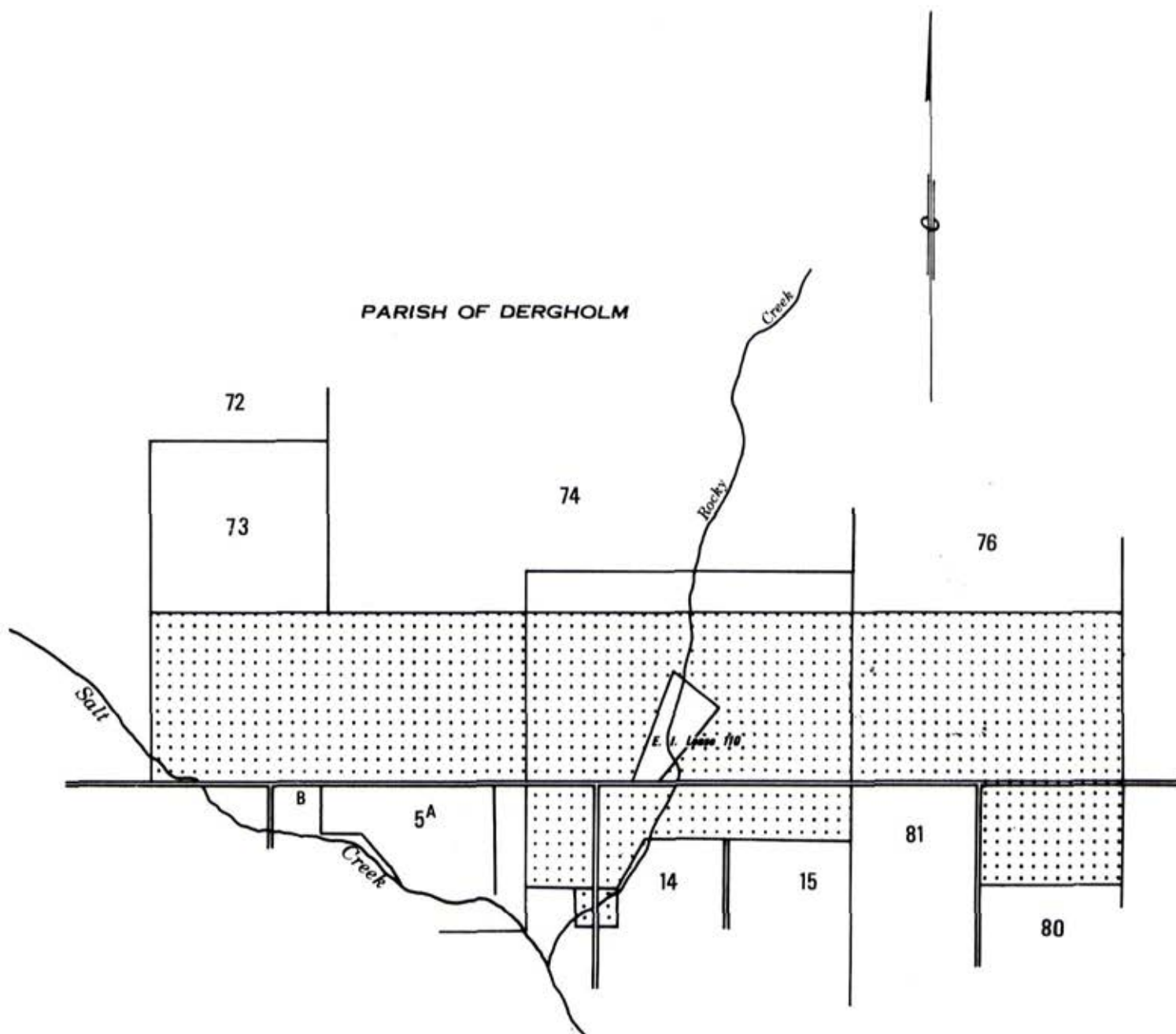
Scale 80 Chains to 1 inch

DRAJURK



Scale : 80 Chains to 1 inch

BAILEYS ROCKS



Scale : 40 Chains to 1 inch

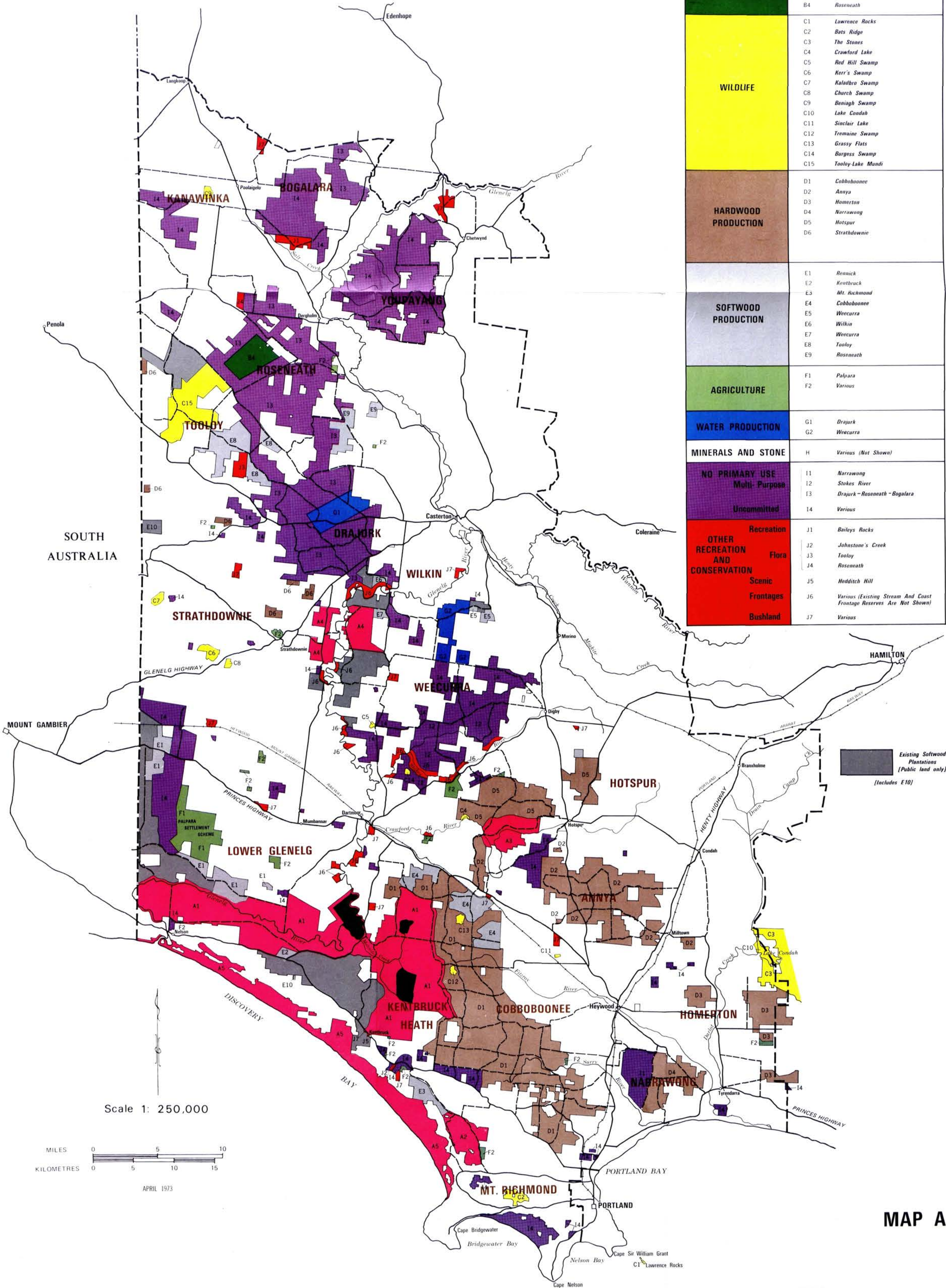
FINAL RECOMMENDATIONS

SOUTH WESTERN STUDY AREA

LAND CONSERVATION COUNCIL
VICTORIA

LEGEND

PARKS	A1	Lower Glenelg
	A2	Mt. Richmond
	A3	Crawford River
	A4	Wilkin
	A5	Discovery Bay
SCIENTIFIC REFERENCE	B1	Keegans Bend
	B2	Kentbruck Heath
	B3	Cobbohoonee
	B4	Roseneath
WILDLIFE	C1	Lawrence Rocks
	C2	Bats Ridge
	C3	The Stones
	C4	Crawford Lake
	C5	Red Hill Swamp
	C6	Kerr's Swamp
	C7	Kaladbro Swamp
	C8	Church Swamp
	C9	Benagh Swamp
	C10	Lake Condah
	C11	Sinclair Lake
	C12	Tremaine Swamp
	C13	Grassy Flats
	C14	Burgess Swamp
	C15	Tooloy-Lake Mundi
HARDWOOD PRODUCTION	D1	Cobbohoonee
	D2	Annya
	D3	Homerton
	D4	Narrawong
	D5	Hotspur
	D6	Strathdownie
SOFTWOOD PRODUCTION	E1	Rennick
	E2	Kentbruck
	E3	Mt. Richmond
	E4	Cobbohoonee
	E5	Weecurra
	E6	Wilkin
	E7	Weecurra
	E8	Tooloy
	E9	Roseneath
AGRICULTURE	F1	Palpara
	F2	Various
WATER PRODUCTION	G1	Drayark
	G2	Weecurra
MINERALS AND STONE	H	Various (Not Shown)
NO PRIMARY USE Multi-Purpose Uncommitted	I1	Narrawong
	I2	Stokes River
	I3	Drayark - Roseneath - Bogalara
	I4	Various
OTHER RECREATION AND CONSERVATION	J1	Baileys Rocks
	J2	Johnstone's Creek
	J3	Tooloy
	J4	Roseneath
	J5	Heddtich Hill
	J6	Various (Existing Stream And Coast Frontage Reserves Are Not Shown)
	J7	Various



MAP A