

# NATIONAL CAPITAL OPEN SPACE SYSTEM

Policy Plan and Development Plan



June 1984

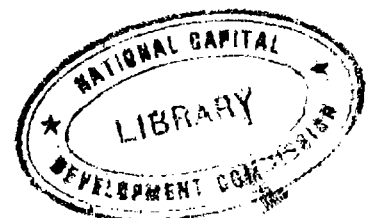
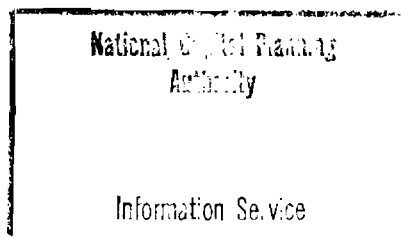
Draft for Discussion



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# NATIONAL CAPITAL OPEN SPACE SYSTEM

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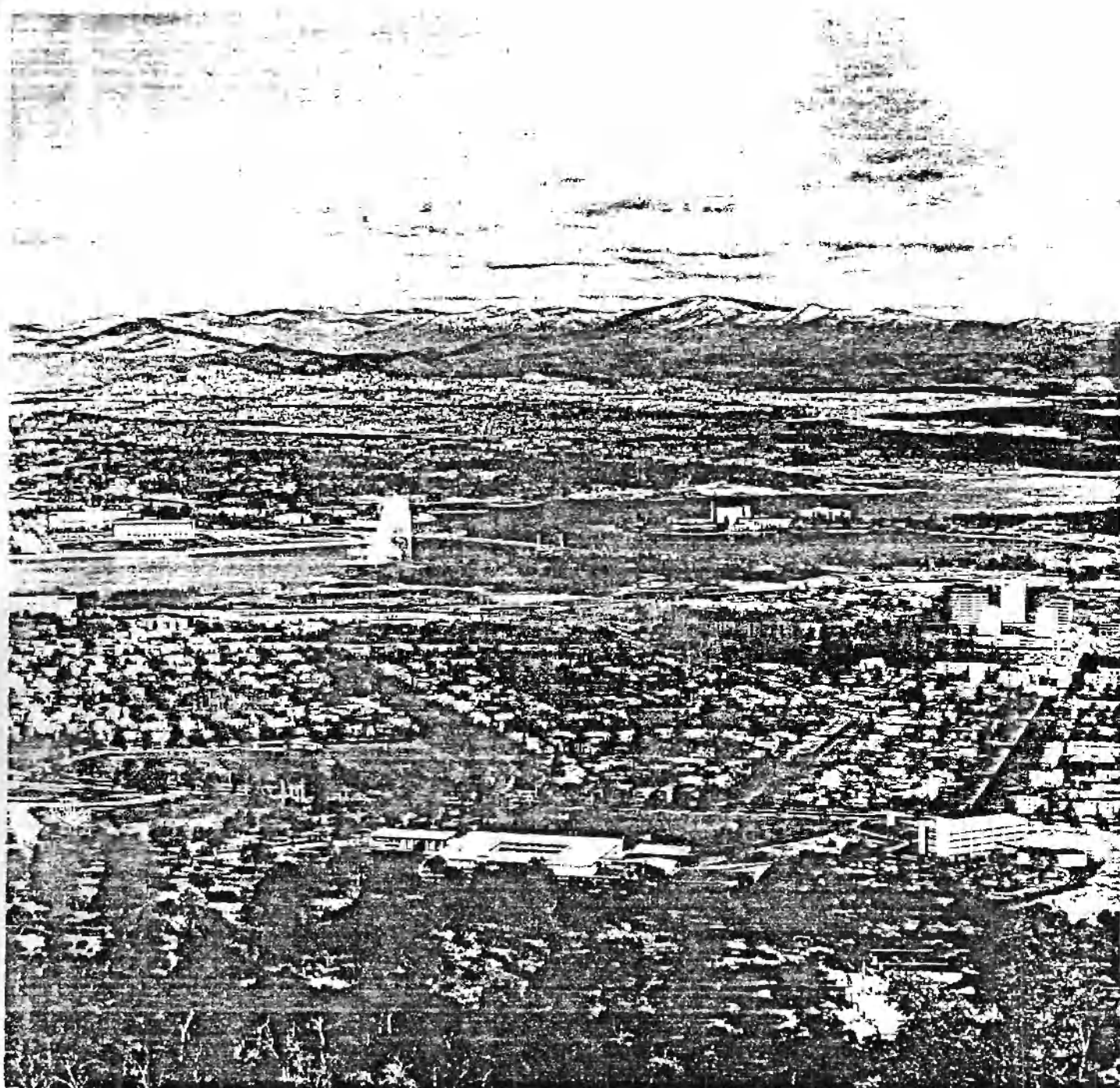
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This report has been prepared and printed within the  
National Capital Development Commission in close  
collaboration with the Department of the Capital Territory.

## PREFACE

This report presents the Draft Policy and Development Plans for the National Capital Open Space System, and associated rural landscape areas that form the landscape setting of the National Capital.

The special importance of the landscape setting of Canberra has been recognised by the National Capital Development Commission since its inception in 1957. In its planning and development function the NCDC has emphasised the conservation of the ecological, landscape, and recreational qualities of the open space surrounds of the National Capital, and has acted to make the benefits of these resources available to Canberra residents and visitors. To assist in its planning to satisfy the long term needs for conservation and use of National Capital Open Space the Commission has undertaken a series of detailed studies leading to the formulation of policies to guide the future development and management.

This report has been prepared by the National Capital Development Commission in close collaboration with the Department of Territories and Local Government. It identifies the current planning and management issues of the system and serves as a guide to the continuing planning, development and management actions of both the Commission and the Department in respect of the Open Space System.

The report explains the background to the Commission's plans for the National Capital Open Space and is intended to provide a focus for public discussion of the Draft Policy and Development Plans for the system as a whole. Within the framework of these plans individual policy and development plans will be prepared for the components of the system.

The Commission invites members of the public to comment on the Draft Policy and Development Plans. Comments should be submitted in writing to:

The Secretary and Manager  
National Capital Development  
Commission  
GPO Box 373  
CANBERRA ACT 2601

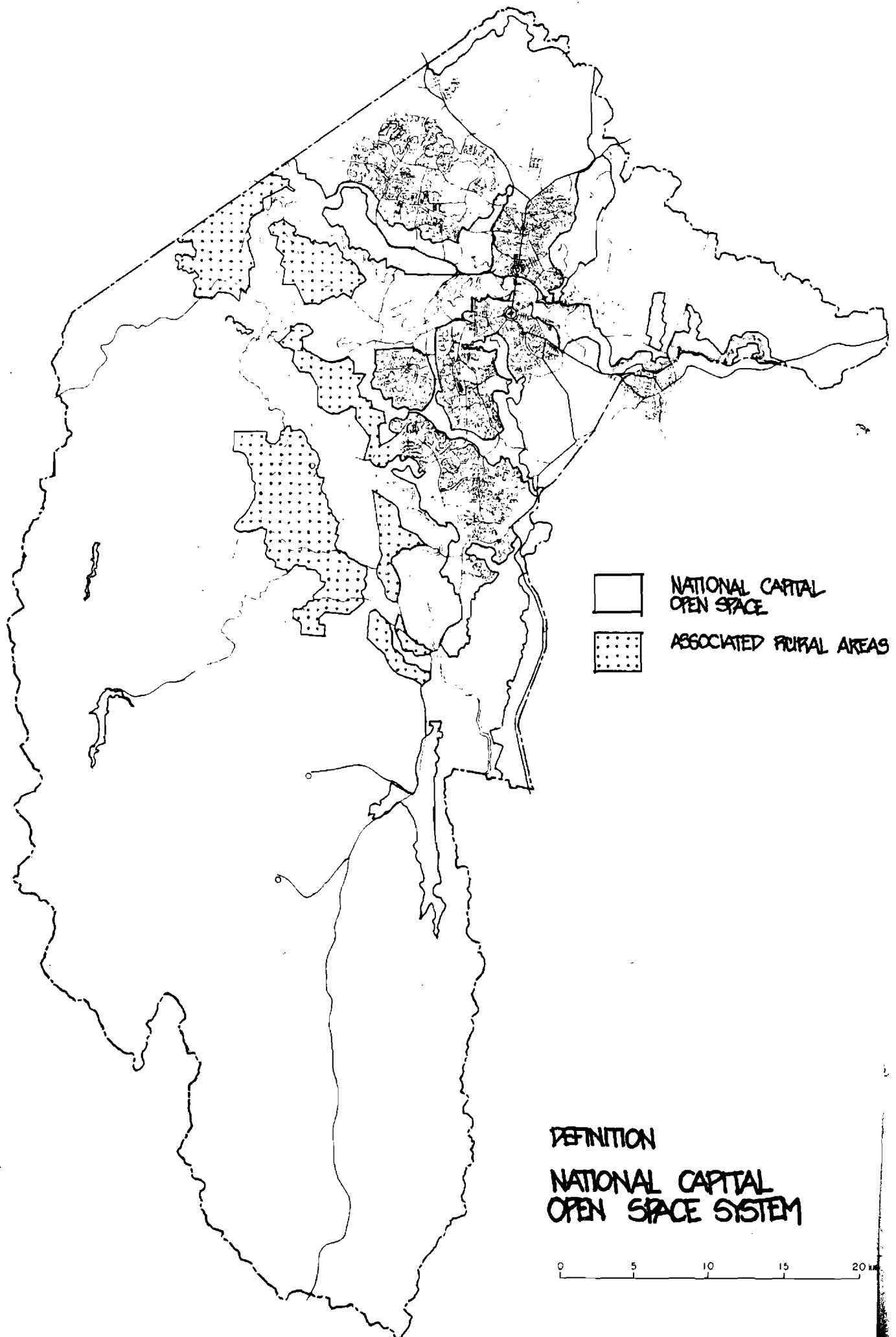




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## Chapter 1

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## 1.0 INTRODUCTION

### 1.1 The Concept of a National Capital Open Space System

The mountain ranges that rise on the western side of the Murrumbidgee River and the lines of ridges and high hills to the east that contain and shape the urban expansion are the most striking quality of Canberra and are immediately obvious to anyone visiting the city. This spectacular mountain and tableland scenery is an essential part of the city's landscape character and frames the mental image that visitors to the National Capital carry away with them.

As one moves around Canberra and travels into the nearby countryside the views change. The corridors of the Murrumbidgee and Molonglo Rivers can become more apparent, between the mountain ranges in the background and rural land in the foreground, with pine forests adding diversity to the landscape.

The visitor's impression of these landscapes is often limited to what can be seen from locations such as the shore of Lake Burley Griffin, the summit of Mount Ainslie, the Tuggeranong Parkway, or a drive along the Cotter road or through Paddy's River to Tidbinbilla. For Canberra's residents and others who care to explore the land that provides these vistas, there is much more to discover. The surroundings of Canberra offer an extensive and diverse recreation resource on the doorstep of the city, a wealth of natural and cultural heritage and a land resource protected against urban development to serve the other long term needs of the National Capital. Such a resource is unparalleled in any other large city in Australia.

The public land which constitutes this vast landscape and recreation resource is known as the National Capital Open Space System, and it is supported in its functions by a number of associated rural landscape areas.

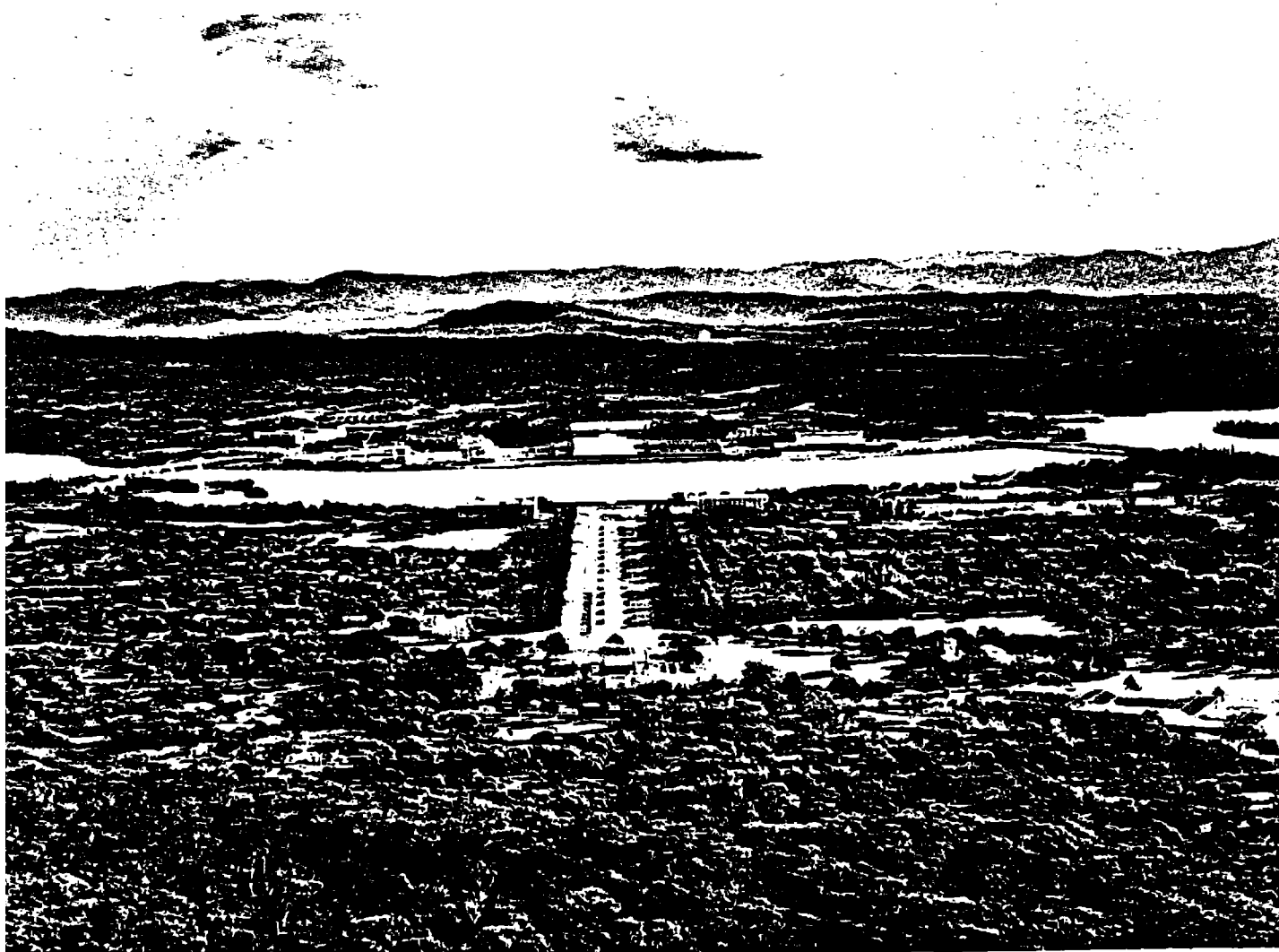
The National Capital Open Space System (abbreviated NCOSS) includes the corridors of the Murrumbidgee, Molonglo and Gudgenby Rivers and Ginninderra Creek, Lake Burley Griffin and Lake Ginninderra, the hills that form a backdrop to the existing and proposed towns of Canberra, the mountain and bushland areas in the Cotter

Catchment, the Gudgenby Nature Reserve, Tidbinbilla Nature Reserve and the Gibraltar Creek area and the pine forests to the west and south of Canberra that interface with the other components of the System. In total these areas comprise 72 per cent of the ACT. They are distinguished from the other open space areas within the city in that their value extends beyond satisfying the needs for municipal recreation and their provision, planning and management is dictated primarily by the role they serve in enhancing Canberra as the National Capital.

The associated rural landscape areas (also shown in Figure 2) consist predominantly of leased rural land in use for primary production. These rural surroundings provide the foreground landscape in views of several NCOSS areas, and also establish a visible link with the city's rural past. While they do not form part of NCOSS, their planning and management is interrelated in many respects.

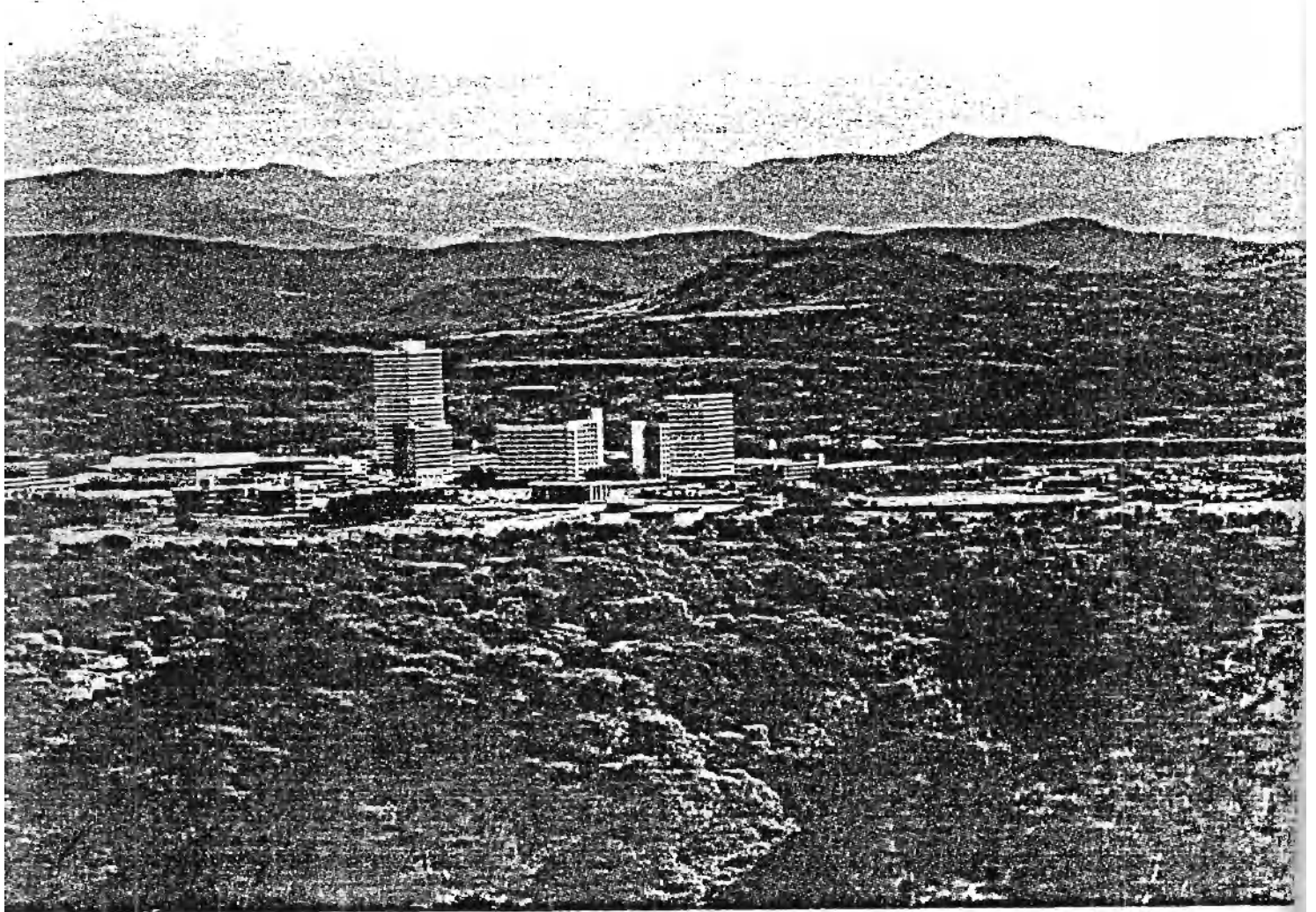
Few cities have the opportunity of providing such a resource as the National Capital Open Space System and protecting its qualities against the pressure of urban development. The ACT, however, has a system of planning and land administration which gives to the Commonwealth wide powers of decision on a large range of issues that influence the development, use and management of lands in the ACT. This situation makes it possible to propose that the hills and river corridors on the periphery of the Canberra metropolitan area and the mountain and bushland areas west of the Murrumbidgee in the south-western part of the ACT should be planned, designed and managed as an integrated system.

The concept of a National Capital Open Space System (NCOSS) has always been intrinsic to Canberra. It had its genesis in Griffin's sensitive perception of land forms and the importance of landscape and his reliance on them as the basis for his planning. The principle embodied in his plan of maintaining convenient access to the countryside, keeping clear demarcation between town and country by means of sharp urban edges, and a keen respect for topography and landscape as important generators of urban form were extended from the original compass of the 1911 plan to a metropolitan scale in the context of the Commission's first metropolitan plans in the early 1960s. The



N.C.D.C.

The National Area and its  
landscape setting from  
Mt Ainslie.



Pieter Arriens

Woden urban area from Red Hill showing  
the sharp urban/rural boundary and the  
mountain ranges that rise beyond the  
Murrumbidgee River.

characteristics and the appearance of the rural and landscape surrounds of Canberra today are the outcome therefore of a deliberate planning policy and careful and consistent land management from the earliest days of Canberra's development.

The function of the system of open space has broadened with time. Today it provides not only a pleasing harmonious visual background to the Capital but also a diverse recreational and cultural resource for residents and visitors. It is important also in conserving a representative range of the Territory's flora and fauna, protecting sites of ecological, geological, historical and archaeological significance (thus contributing to the Australian National Estate), providing an educational resource related to these values, contributing to the protection of Australia's largest and most important inland river system, and serving a range of compatible utilitarian functions, such as water catchment and timber production.

The role and function of NCOSS will assume increasing importance as the city continues to grow. Experience elsewhere has shown the wisdom of setting aside adequate open space well before development pressures arise. The growth of the National Capital in the next two decades, the demand for land for all purposes, haphazard and ill-considered placement of development, buildings and installations and careless land management could change the scale, character and the appearance of the landscape surrounds of the National Capital.

There is therefore a need for a concerted effort by NCDC and the Department of Territories and Local Government (DTLG) to develop the concept of a National Capital Open Space System in a new era of Canberra's growth and development. Land and resource planning and management in the ACT will need to be a continuing concern of the Commonwealth if the essential qualities of the open space setting of the nation's Capital are to be retained for the enjoyment of future generations of Canberra residents and the many tourists and visitors who come to see the National Capital. There is also a need to invest the National Capital Open Space System with meaning and significance and stimulate public awareness of its essential qualities while it is still possible to retain these. The value of encouraging the preservation of the landscape setting of the city lies not only in what it will prevent happening, but also in what it provides for people and how they experience it.

## 1.2 Planning and Management Responsibilities

The National Capital Development Commission has powers to plan, design and construct or control development, so as to accommodate future growth pressure on much of the river system within the ACT. NCDC has, in general, assumed full planning authority for the ACT and the river system, based on a government decision following the recommendations of the Inquiry of the Joint Committee on the ACT into Planning Procedures, even though no changes have, as yet, been made to the Commission's Act.

The management responsibility for the National Capital Open Space System and all non-urban lands in the ACT rests with the Department of Territories and Local Government. The Department has at its disposal substantial scientific expertise, park and recreation specialists, ecologists, horticulturists, agriculturalists, wildlife managers and foresters and with its management and manpower resources has the ability to realise the overall aims of the NCOSS. Without a management authority protection of open space would not be possible.

It is essential that these different areas of responsibility be thoroughly integrated into an agreed comprehensive approach which meets the needs of all members of the community in an equitable manner. To this end a joint National Capital Open Space System Project Group has been established by NCDC and DTLG.

The White Committee, which in 1983 completed a review of the National Capital Development Commission, recommended as follows:

".... that national capital open space should remain a Commonwealth responsibility in the event of self-government for the ACT; in the interim the Department of Territories and Local Government should continue its current functions and responsibilities for management for open space".  
(Recommendation 50)



This recommendation has been accepted by the Government. Hence while the future individual responsibilities of NCDC and DTLG in the advent of self-government have still to be resolved, the planning and management of the National Capital Open Space System would remain a Commonwealth responsibility.

### 1.3 Purpose and Scope of the Report

The purpose of this report is to bring together the essence of special studies undertaken by the NCDC and DTLG to define the National Capital Open Space System, to present for public comment the Commission's planning policies for the protection, use and management of the open space and to describe the intended development proposals and priorities for the implementation of these policies. A summary of relevant planning and management issues is presented in the report to assist in understanding the rationale behind the policies and proposals.

The policies are presented in the form of a Policy Plan, prepared in accordance with the NCDC Plans System (see Appendix B). At the broad planning level addressed in this report, only the general principles for planning and developing National Capital Open Space can be established. More detailed policies for each of the components of the system fall within separate policy and development plans for each of these components. Some of these plans (e.g. Ginninderra Creek, Murrumbidgee River Corridor) have already been released for public comment, while others are currently being prepared (e.g. Lake Burley Griffin, Gudgenby). The preparation of policy and development plans for the system as a whole will provide a context for formulating the plans for specific areas, and should be evaluated on this basis.

#### 1.4 Associated Reports

Prior to the preparation of the Draft Policy and Development Plans, much thought and effort was devoted to developing the NCOSS concept, analysing the natural and cultural resources of areas, determining the use of these areas and likely future demands, and evaluating the planning and environmental issues associated with the development and use of NCOSS. This work is documented in a large number of background reports.

The most significant of these reports are listed as follows:

- . A Land Use Plan for the ACT (March 1975)

This report defined and developed proposals for the containment of urban growth, the preservation of the existing landscape and provisions for accommodating particular land uses compatible with the National Capital, recognising environmental protection and recreation need.

- . National Capital Open Space System:  
Interim Report (Dec 1976)

This report identified the main policy issues and problems involved in the planning, design and management of the hills and river corridors and provided an interim document to guide the continuing planning and management actions of NCDC and the Departments.

- . An Open Space System for Canberra  
NCDC Technical Paper 23 (October 1977)

This report by George Seddon provided an independent review of the role of the open space system. The major conclusion of this report is that Canberra needs, deserves and can afford a generous open space system and that it should be reserved now for the long term future needs of a major metropolis.

- . Monitoring River Recreation Demand  
in the ACT. NCDC Technical Paper 32  
(June 1981)
- . Waters of the Canberra Region  
Technical Paper 30 (April 1981)

This report examined, in detail, the issues relating to water resources and the land and water uses which affect them, in the catchment of the upper Murrumbidgee River. It summarised the results of several major studies of water quality and aquatic ecology in lakes and streams of the ACT region. Broad policies for future water use and management in the ACT were developed on this basis.

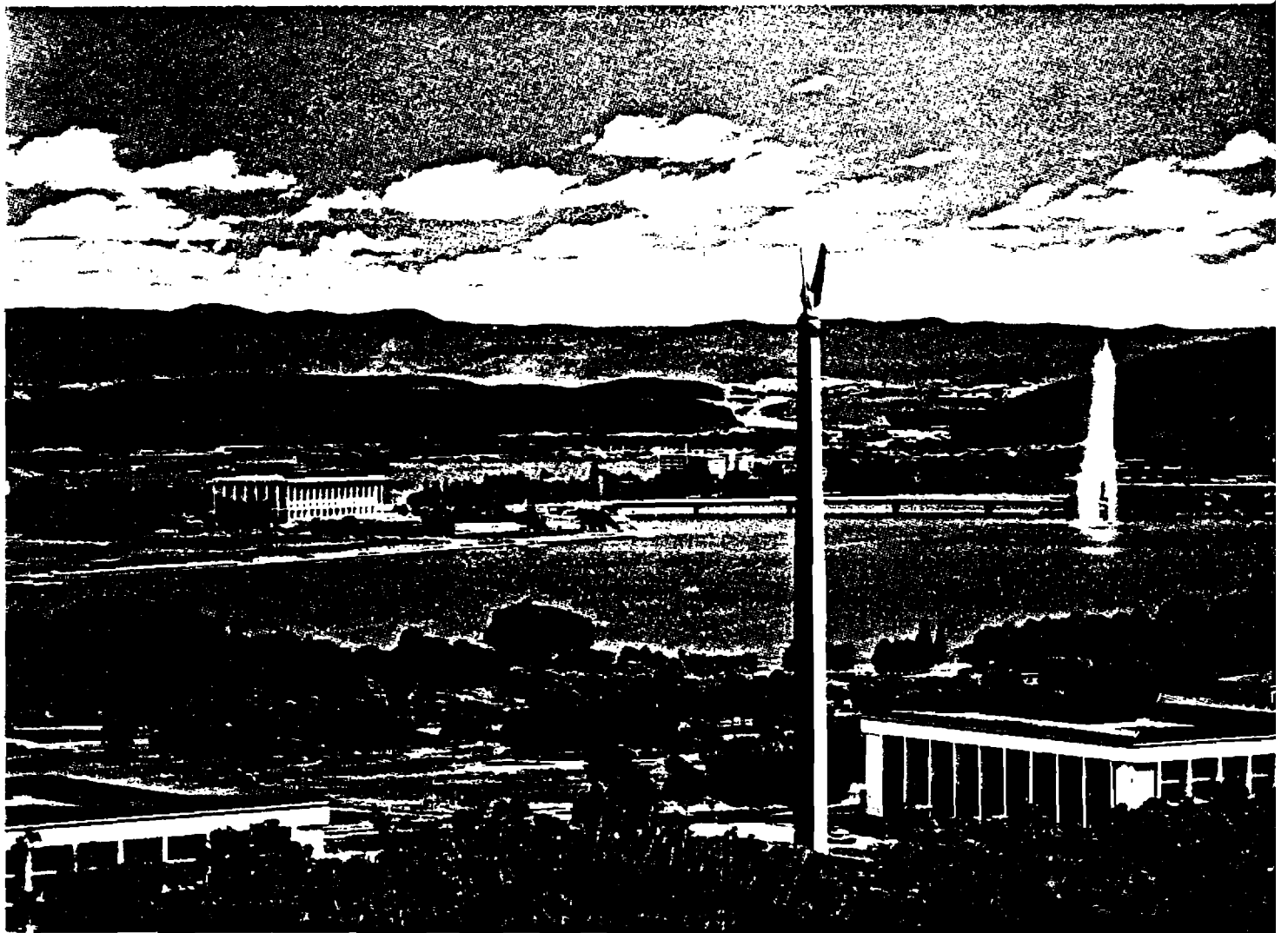
- . Ecological Resources of the ACT  
Technical Paper 42 (May 1984)

This report presents a detailed description of the ecological resources of the ACT including many significant features within NCOS areas.

- . Murrumbidgee River Corridor: Draft Policy Plan  
and Development Plan (October 1983)

This document explained the background to the NCDC's plans for future land and water use associated with the Murrumbidgee River Corridor, one of the major components of NCOS, and presented the proposed plans.

Other significant reports are listed in Appendix A.



Pieter Arriens

"National capitals tend to be monumental.  
Canberra is unique in that the natural  
setting has become the primary monument"

(Seddon)

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## Chapter 2

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## 2.0 PLANNING PHILOSOPHY

### 2.1 Evolution of the Concept

The natural landscape and beauty of the area were prime considerations in the selection of Canberra as the site for the National Capital in 1908. The Minister for Home Affairs, Mr H. Mahon, directed the government surveyor Charles Scrivener to bear in mind that:

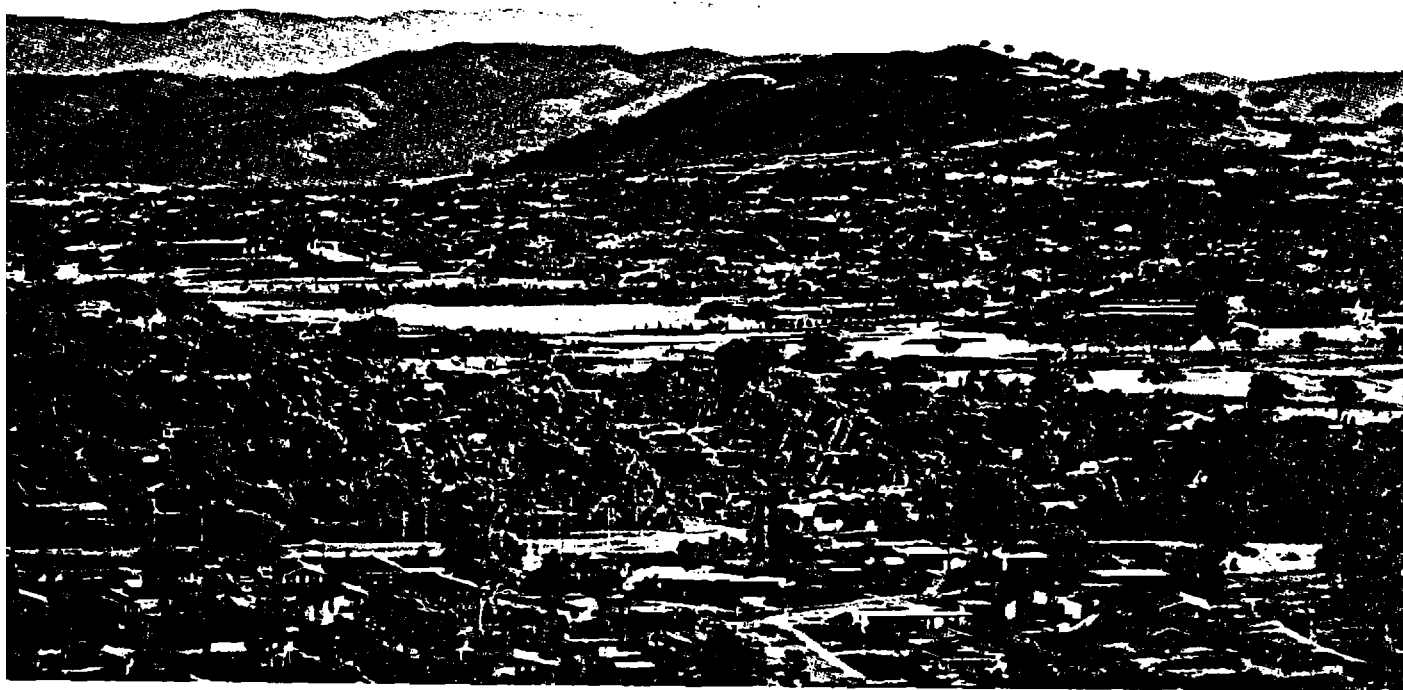
"...the Federal Capital should be a beautiful city, occupying a commanding position, with extensive views and embracing distinctive features which will lend themselves to a design worthy of the object, not only for the present but for all time..."

Scrivener was of the opinion that the Canberra site met these considerations and the Government endorsed his recommendation. It is a belief which has been shared by subsequent generations.

Walter Burley Griffin sensed the importance of the natural landscape and used the topography as the dominant element in his prize-winning design for the city in 1912. For Griffin, the beauty of the site was the prime consideration.

His grand formal landscape used the most prominent natural features of the city site as important parts of the plan. The city was designed to be both part of the surrounding landscape and to provide long views into it. In his 'Report Explanatory' of October 1913, Griffin wrote: "Taken altogether, the site may be considered as an irregular amphitheatre - with Ainslie at the north-east in the rear, flanked on either side by Black Mountain and Pleasant Hill, all forming the top galleries: with the slopes to the water, the auditorium; with the waterway and flood basin, the arena; with the southern slopes reflected in the basin, the terraced stage and setting of monumental Government structures sharply defined rising tier on tier to the culminating highest internal forested hill of the Capital; and with Mugga Mugga, Red Hill and the blue distant mountain ranges, sun reflecting, forming the back scene of the theatrical whole."

Griffin's plan proposed that the future national capital should be contained in a natural setting of near hills and distant mountains (Brindabella Ranges). Urban development should be confined to the plains and valley floors leaving the slopes and hilltops in their natural state. Griffin's



Pieter Arriens

Residential areas in Woden built  
within the valley and their spread  
contained by Mt Taylor and surrounding  
ridges.

perception of the site of Canberra when he first saw it was of a city which should always be seen in relation to the hills, the sky and the clouds, and the clear atmosphere which taken together made such a dramatic site for a city.

During his association with Canberra, Griffin's efforts at implementing his plan included the development of the principal routes and large scale advanced planting on the bare limestone plains and natural regeneration of the surrounding hills. This emphasis on formal tree planting and regenerative planting was carried out with even greater energy by Thomas Weston, the first officer-in-charge of Afforestation between 1913 and 1926.

Subsequent planning reports have upheld the importance of the landscape surrounding Canberra. The NCDC in its Planning report for the Five Year Period 1959-1964 pointed out that 'one of the greatest attractions of Canberra is that from almost anywhere in the city you can see wooded slopes of the closer hills with the varied pattern of partially wooded grassland and mountain ranges in the distance'.

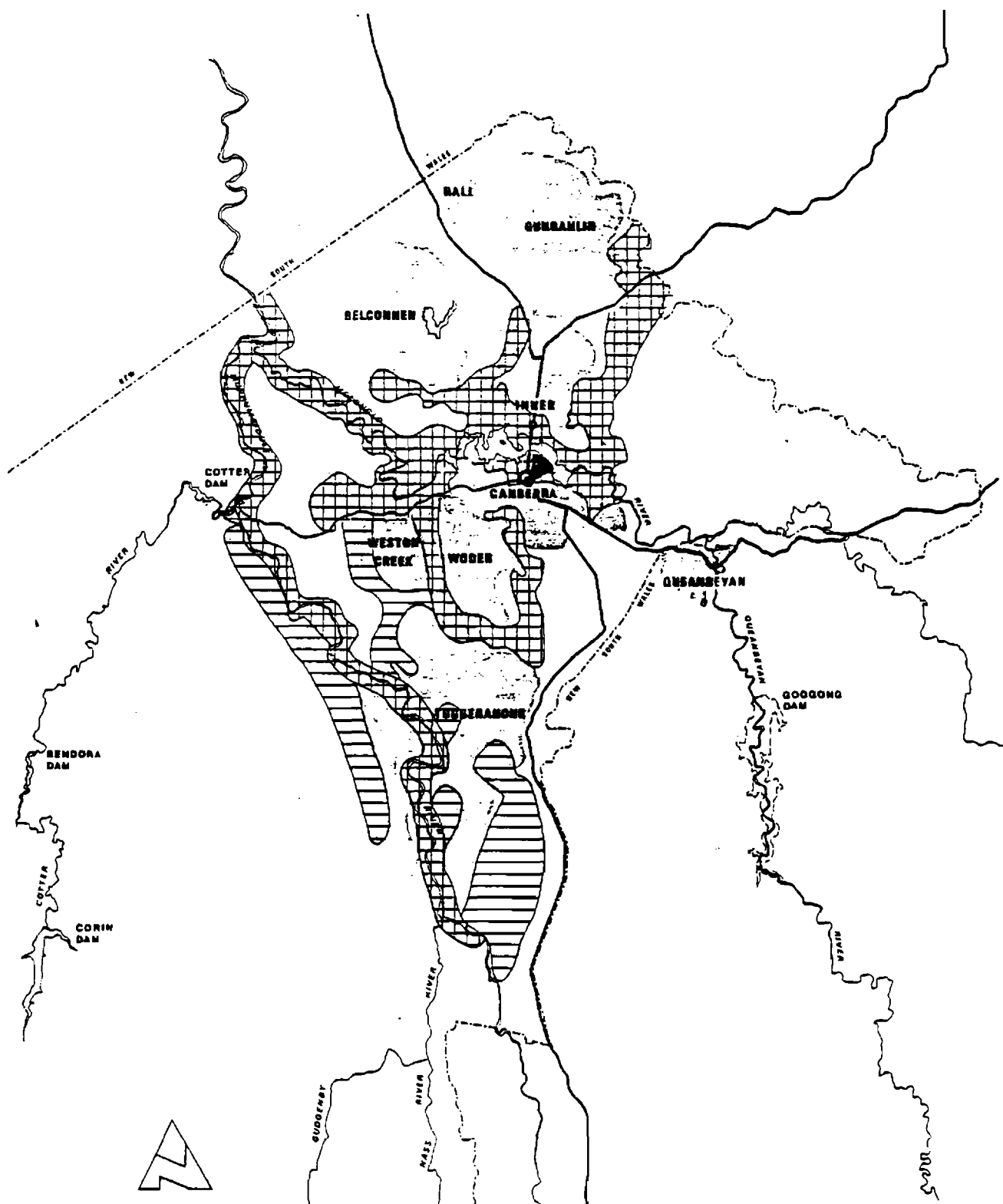
Two important decisions were made by the Commission to retain these qualities:



- (i) Future residential districts would be built in the open valleys and their spread contained by hills and ridges which would be preserved as part of the permanent open space system.
- (ii) Wide reservations would be retained between the main urban districts such as that which naturally occurs along the Molonglo Valley so as to help stabilise the orderly pattern of clearly defined and circumscribed urban areas within the rural and landscape setting.

In The Future Canberra (1965) the Commission argued that the mountains within the city and those surrounding it would be the basis of the National Capital's enduring beauty. It said:

'One of the greatest attractions is the nearness of spectacular mountain and river scenery. The preservation of the character of these areas is a principle against which all development should be measured...





-  CENTRAL AREAS, LAKESHORE, HILLS AND RIDGES ETC
-  SUGGEST FURTHER AREAS FOR INCLUSION
-  PARLIAMENTARY ZONE

0 5 10 15  
Kilometres

AREAS OF SPECIAL  
NATIONAL CONCERN

It went on to define those parts of Canberra where close supervision and special design attention and consideration were required to maintain the national landscape. These included the Parliamentary Triangle and the National Area in which the most important national institutions are located, the major avenues leading into and through the city, the lake and river foreshores and the hills and ranges. These areas were called Areas of Special National Concern and were seen as forming part of a National Capital Park System, to be extended with the growth of the city. The concept was endorsed by the Government.

A proposal for such a system was contained in an unpublished 1965 NCDC report. The park system was seen as embracing the whole of the ACT west and south of the Murrumbidgee River (an area of 1600 km<sup>2</sup> -) as well as the areas of special national concern and other reserves to the east of the Murrumbidgee River.

The role of the hills in preserving the enduring qualities of the National Capital landscape setting was emphasised in Tomorrow's Canberra (NCDC 1970), in which the Y-Plan showed Canberra growing as a series of separate and distinct towns along three urban growth corridors. This plan also provided easy access to the countryside and recreational areas along the Molonglo and Murrumbidgee Rivers, reflecting the recognition of the changing demand for recreational areas in Canberra, with increasing use of regional and metropolitan recreation resources.

The concept of a "Metropolitan Open Space System" was developed further in A Land Use Plan for the ACT prepared in 1975 by NCDC at the request of and in close collaboration with the Department of the Capital Territory. In this plan the concept of 'Essential Foreground Reserves' was introduced, and the Bulgar Creek area and Paddys River valley in particular were recommended for retention in open rural use under this category. The plan also extended the concept of 'Areas of Special National Concern' to include the Tuggeranong Hills and ridges, river corridors, crest lines of the Brindabella and Tidbinbilla ranges and NE and NW boundaries of the ACT which were called 'Visual Corridors of Special National Concern'.

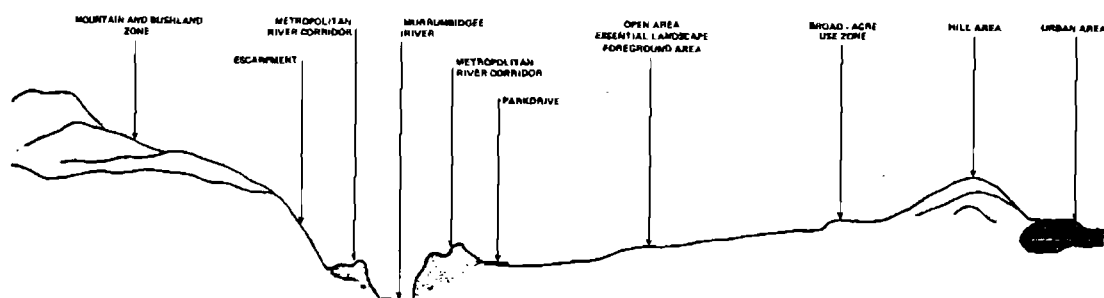


FIG. 10 REPRESENTATION OF PERFORMANCE ZONES

The transition from urban to non-urban zones



In April 1975 the Commission and the Department approved a joint study of the National Capital Open Space System to determine needs, the identification of resources and the establishment of a strategy for the planning and management of the open space. This led to the publication by the Commission of the National Capital Open Space System Interim Report as a summary statement of the current situation and the issues relevant to the open space system in July 1976.

In addition the Commission briefed George Seddon to undertake an independent review of the role of the open space system. His report, An Open Space System for Canberra, published in October 1977, examined the justification, importance and special role that open space plays in the ACT relating to planning for the open space in the Territory, changing recreational patterns and attitudes towards landscape conservation, outlined areas where recreation pressures were being felt and changes were occurring and suggested certain planning and management aspects which should be examined further. It also pointed out the need for environmental protection with its potential for conflicts with certain recreation development, and highlighted the need for an integrated open space system.

The concept of the National Capital Open Space System has therefore evolved by subsequent administrations' acceptance of Griffin's perception and his reliance on the landscape element and the landscape setting of Canberra as a basis for planning the National Capital.

In physical terms the National Capital Open Space System exists as a definable area because the land use pattern of the ACT and the urban structure of the National Capital have been shaped to give expression to the pervasive nature of the landscape elements as envisaged by Griffin. In particular, the respect for topography and landscape as important generators of urban form and the sharp demarcation between urban and rural areas have resulted in an interconnected system of undeveloped hills and rural areas between the towns and a system of lakes and streams retained within a linear park system. These areas provide recreation facilities and trails which are readily accessible to the urban area.

Further away, the rural areas provide a land bank for future National Capital uses and preserve the landscape quality of Canberra's surrounding, while in the remote parts of the ACT the mountainous catchments, which were a primary consideration in the original establishment of the boundaries of the ACT, provide an extensive resource for recreation and nature conservation, as well as a background to the city's landscape.

The current role of the National Capital Open Space System together with the associated rural areas can be expressed in terms of four primary functions:

- . Landscape setting. In providing a landscape setting which is symbolic of Australia and contributes towards Canberra's role as a national showpiece ,
- . Recreation. As a diverse and accessible multiple-use recreation resource for use by residents and visitors to Canberra ;
- . Conservation. In the conservation and public appreciation of the natural and cultural resources of the ACT ;
- . Land bank. As a land bank to satisfy future Commonwealth and tourist-related needs associated with Canberra as the National Capital.

It must be emphasised, however, that the National Capital Open Space System is not intended to be developed or managed purely as traditional open space or parkland. It is and will continue to be a multiple-use area, with different parts providing for water catchment, softwood production and grazing, or accommodating city services such as roads, pipelines, reservoirs, powerlines, substations and telecommunication facilities. These other uses can be accommodated within the framework of the four primary functions.

The point has been reached in the planning of the National Capital Open Space System where the resource has been defined and its functions identified. There is still a long way to go in developing the resource so that its benefits to the community can be fully realised. In doing so, it is important for the community to be able to discover the meaning of the open space - what it is, and how it can be used and appreciated. This draft Policy Plan is an initial step towards making the public aware of its potential. As Seddon said it is essential "to invest the open space with meaning". This is the task that remains to be completed in turning the concept that began with Scrivener and Griffin into an asset of national significance.

## 2.2 Open Space Systems In Other Cities

### 2.2.1 Overseas

The concept of special provision for open space associated with a National Capital is not without precedent. Comparable areas exist in Washington and Ottawa due partly to a combination of factors similar to those which exist in Canberra. ~~These~~ *One of these is* ~~include~~ a federal system of government where the metropolitan or regional open space system is accepted as a federal, rather than a city or local, responsibility, ~~and~~ *another factor is* an integrated planning and management approach based on aesthetic, environmental and symbolic (national capital ethos) considerations.

In Washington the open space provisions contained in the original L'Enfant Plan (1791) were considerably increased as a result of recommendations made to Congress by the Senate Park Commission (McMillan Plan) in 1900. In 1933 most of the large public parks in the District of Columbia were brought under the control of the Federal Government through agency of the National Park Service. An area of 3,000 ha was thus placed in the hands of a single administration and managed together with related parklands in the adjoining States of Virginia and Maryland. In 1961 the National Capital Planning Commission published the "Year 2000 Plan" for Washington which proposed a pattern of future urban

development in the form of 'fingers' separated by wedges of open space. Several years earlier a similar 'finger plan' had been prepared for Copenhagen with the object of directing future development into the city-region and retaining the salubrious areas as recreation and rural lands.

The non-urban areas in the Washington Plan amounted to 2,500 sq km and it was intended that over a long period they would become part of the National Capital System by progressive acquisition. Subsequent urban development pressures within the District and consequent escalation of land values prevented most of this scheme from happening. Washington currently has an extensive national capital parks system comprising historic sites and numerous individual parks administered by the Federal Parks Service in the District and through collaborative arrangements with Parks Commissions in the adjoining States.

In Ottawa a 'Plan for the National Capital' was adopted in 1951 ~~the purpose of which~~ whose purpose was to create a Canadian national capital ~~whose physical~~ ~~realisation in the ensuing years~~ which would serve as a memorial to Canada's involvement in the Second World War. The dominant emphasis of this plan was to extend the system of parks and scenic drives which the Federal Government had begun to develop in 1927. The principal proposals were:

- (a) the development of an open space system based on the three major river corridors and Rideau Canal ;
- (b) the creation of a metropolitan 'green belt' which would serve as a limit to the continued outward expansion of the metropolitan area, and
- (c) the development of a major recreation park and wildlife reserve (Gatineau Park).

The national capital open space system is under the control of the National Capital Commission which is responsible for planning and management. Gatineau Park is the largest element covering an area of 220,000 ha most of which is conserved as a natural wilderness but with large scale facilities for summer and winter sports, and for camping. The 'green belt' has been established by Federal Statute and land within the designated area (116,000 ha) is being progressively acquired for purposes of landscape conservation and reafforestation, for such as market gardens and nurseries, and to provide sites for government and municipal institutional purposes. The overall open space system is linked by a series of scenic parkways which are also planned as the principal entry routes to the heart of the national capital.

In both Washington and Ottawa the metropolitan open space system has long been regarded as an integral part of the 'national capital concept' as distinct from its civic or municipal character. Initially individual parklands have been extended and linked by parkways and waterways to increasingly become continuous open space networks. Land acquisition, planning and management have been funded by the Federal Government in order to provide recreation facilities and an overall landscape setting for the national capital to meet the needs of both residents and visitors.

### 2.2.2 Australia

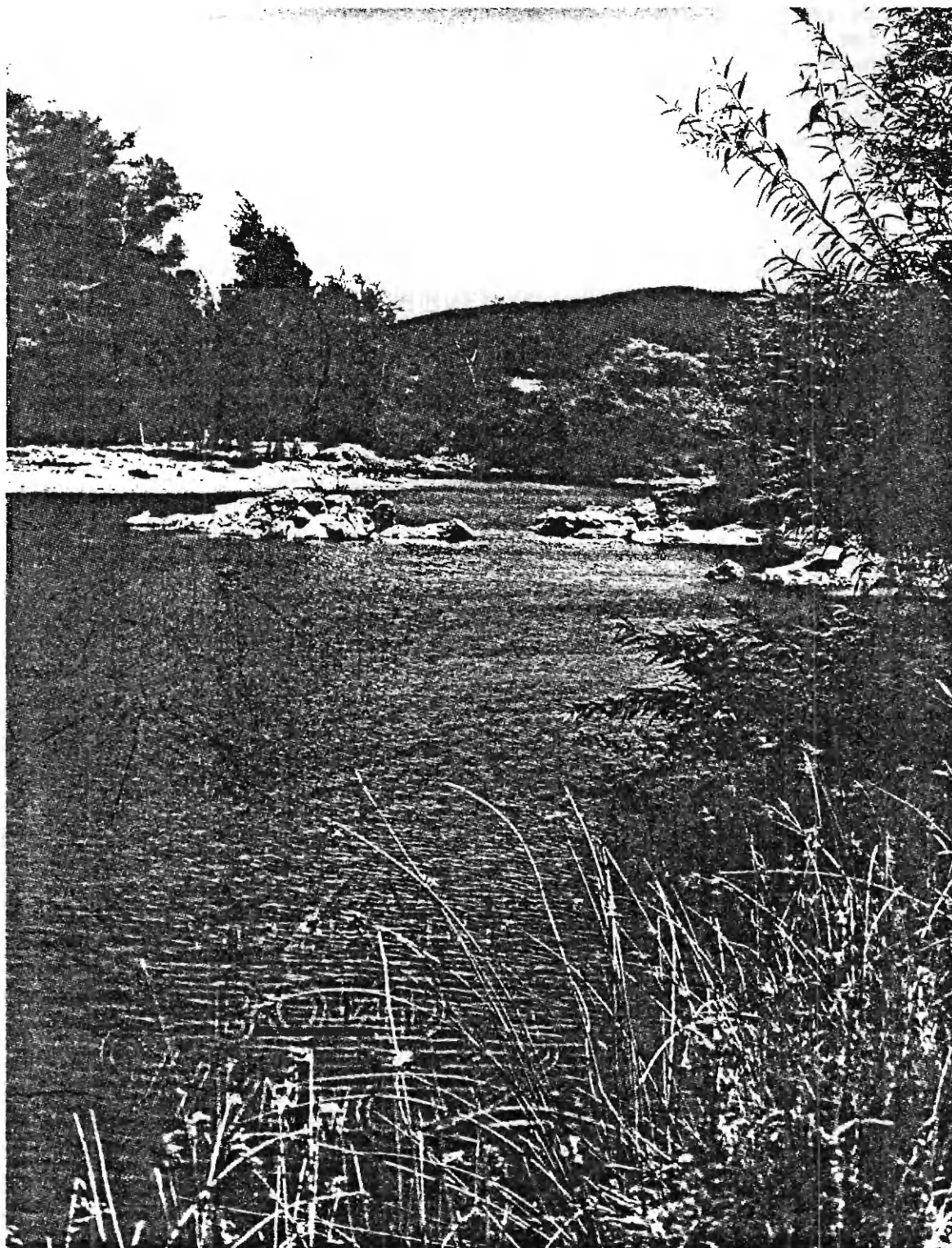
The importance of treating metropolitan scale parks and recreation areas as though they were continuous or linked systems, subject to unitary planning and management procedures, is increasingly being recognised in cities in Australia where central government support is not available.

In Melbourne the Melbourne and Metropolitan Board of Works has been building up a series of metropolitan parks since 1971, three of the most important being located along major watercourses. A programme of land acquisition has brought the aggregate area up to 4,500 ha at a cost of \$32 million, this being somewhat over 50 per cent of the total area to be acquired. This programme



will not produce a continuous metropolitan open space system but in most other respects it will perform the same functions as the national capital parks systems referred to above. The significance of the Board of Works activities is that Melbourne's metropolitan parks are being planned and managed by a single authority, with particular regard being paid to maintaining an appropriate balance between landscape protection and user demand.

More recently in Brisbane, the Brisbane Forest Park was identified in 1979 as a comprehensive area of 25,000 ha of mainly native bushland under the control of various State government agencies and the City Council. Through the adoption of voluntary, co-operative procedures an Advisory Planning Board has been set up comprising officers of State and municipal authorities in order to administer a multi-purpose, multi-ownership forest park in close proximity to the metropolitan area.

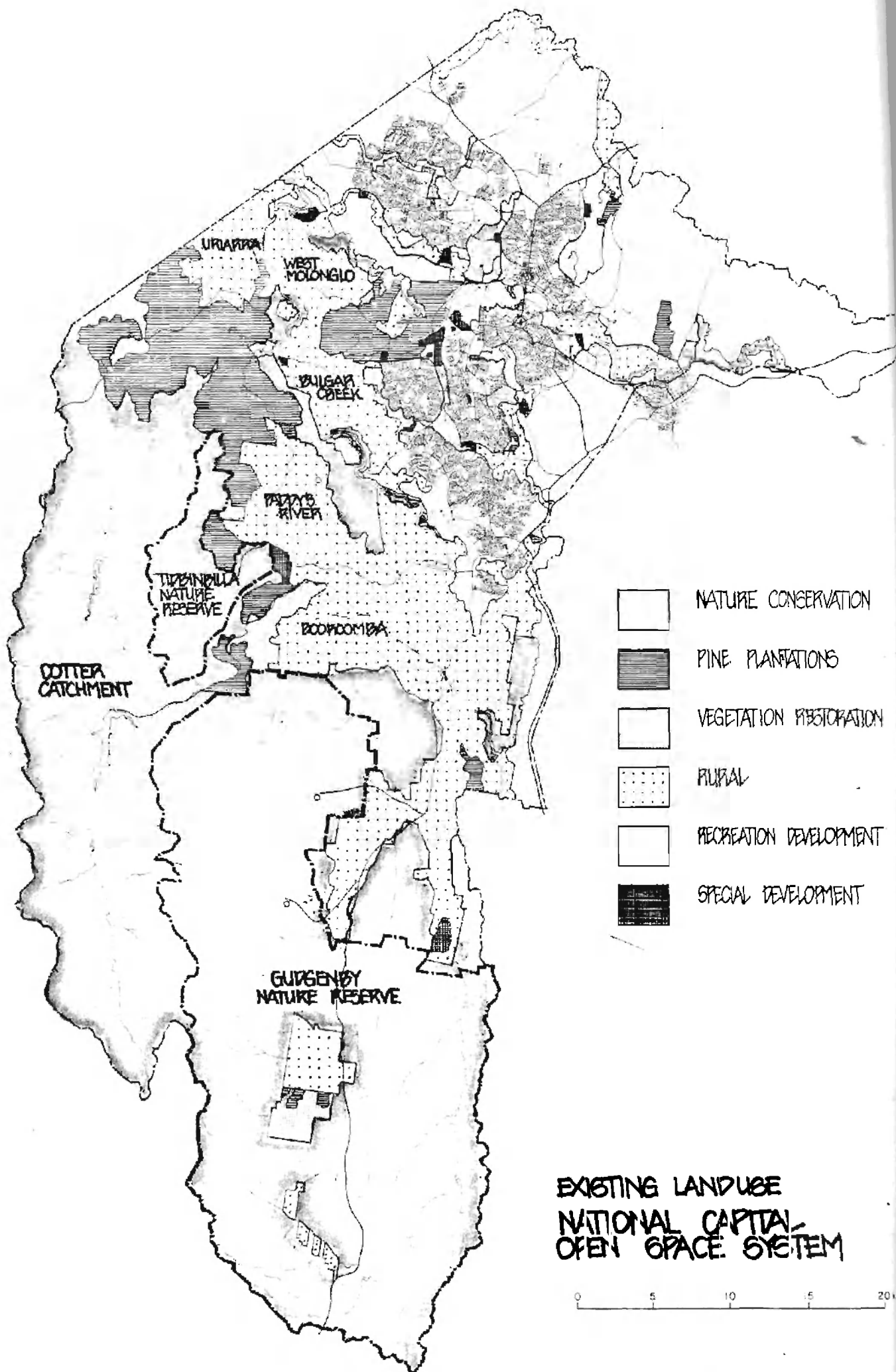


Large pool along the Molonglo River  
downstream of Scrivener Dam.

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## Chapter 3

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### 3.0 DESCRIPTION

#### 3.1 Overview

The National Capital Open Space system covers 72 per cent of the ACT and the areas that it embraces range from parkland in the heart of the city to remote mountain ranges in Gudgenby and the Cotter Catchment. Different parts of the area vary widely with respect to terrain, accessibility and land use. In describing the National Capital Open Space System it is convenient to divide it into an inner area and an outer area.

The inner area (see Figure 6) consists of the hills within and around Canberra, the Murrumbidgee and Molonglo River corridors and the park system along Ginninderra Creek. Most of these were identified in the National Capital Open Space System Interim Report published in December 1976. These lands are for the greater part unsuitable for large scale urban development and, because they are open space areas nearest to the periphery of Canberra, are most likely to come under pressure for recreation and associated purposes. The boundaries have been determined on the basis of visual, topographic, ecological, water quality and access criteria as well as considerations of management practicability, existing tenure boundaries and suitability of the line for fencing.

In many situations the boundaries are firmly defined either by the established urban area, other policy commitments and existing land uses or by ecological constraints. In other cases the boundaries are notional only, and will require more detailed investigation at a later stage when policy and development plans are being prepared for specific areas.

The outer area of the National Capital Open Space System includes the mountain and bushland areas in the western and southern parts of the ACT. It contains a wide variety of landscapes varying from high mountains to foothills, fern-gullies and alpine meadows, native forest and pine plantation, rivers and creeks and some farmland in the floors of the valleys. All are characteristic Australian landscapes but pine forests are present in both the inner and outer areas.

As well as providing an extensive ecological and recreation resource, this vast area of mountain ranges and valleys encompasses existing and potential catchment areas for Canberra's water supply. These areas can be planned and managed for multiple use consistent with maintaining adequate water quality.

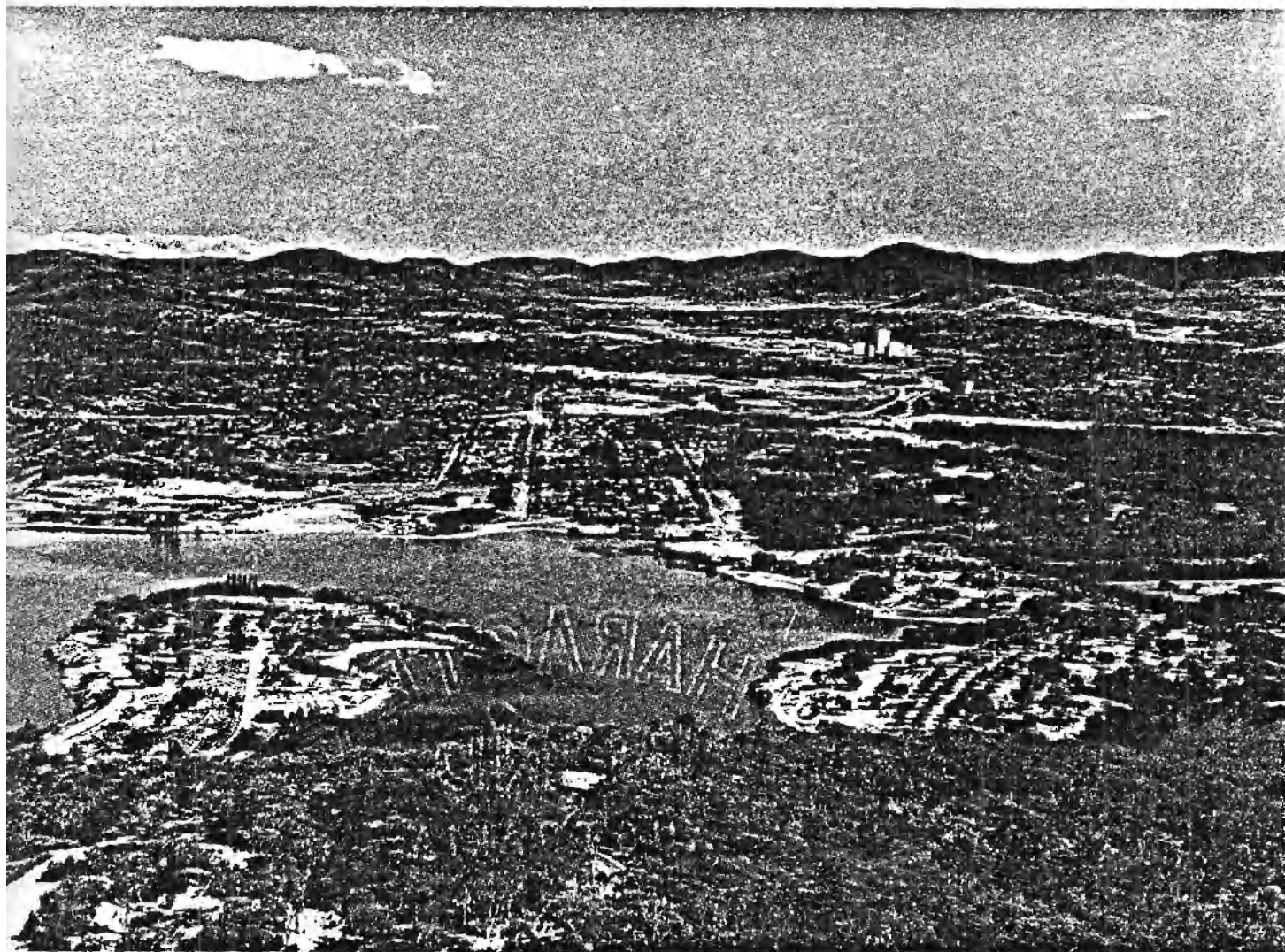
The total area of the National Capital Open Space System is approximately 172,640ha, which can be subdivided as follows:

Type of Area	Area (ha)
Inner Area	
Hill areas (dense forest or cleared land)	13,100
Hill areas (pine forest)	3,600
Murrumbidgee River corridor including water area	9,400
Molonglo River corridor including Lake Burley Griffin and lakeside parkland	3,320
Lower Gudgenby River corridor including water area	440
Lake Ginninderra and Ginninderra Creek corridor approx.	370
Total:	30,140
Outer Area	
Cotter River catchment (including pine plantation)	46,900
Tidbinbilla Nature Reserve	5,060
Gudgenby Nature Reserve	60,000
Other mountain bushland areas (including pine plantation) approx.	30,540
	142,500

Total National Capital Open Space System 172,640

The above areas do not include the associated rural land which in places forms a link between the inner and outer areas, or between some of the components of the inner area.

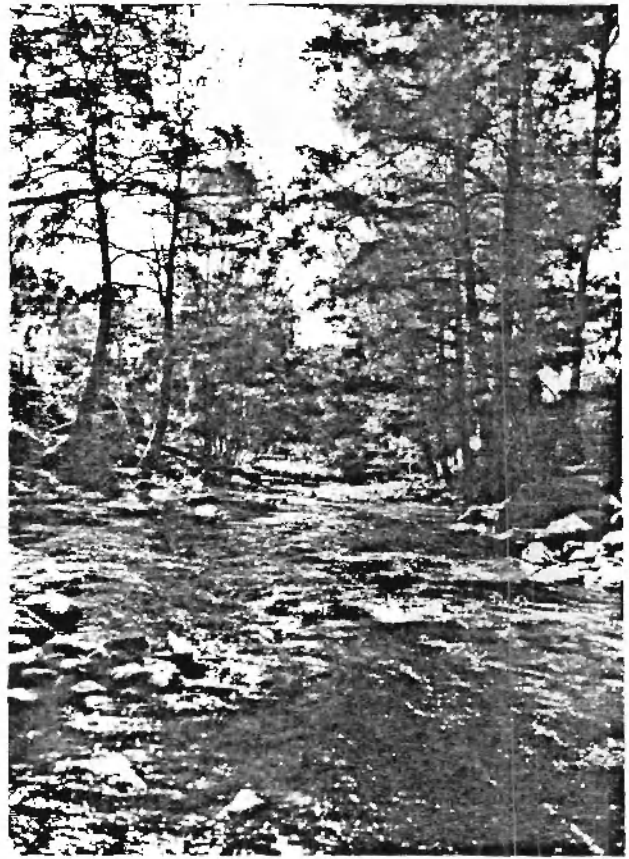
At the level of detail addressed in this report only a very general description of the NCOSS areas and their land uses is practicable. For most of the areas, more detailed studies of the natural and cultural resources have been undertaken. These are listed in Appendix A.



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View from Black Mountain showing the  
Lake, Woden urban area and the  
mountain ranges that rise beyond the  
Murrumbidgee River.







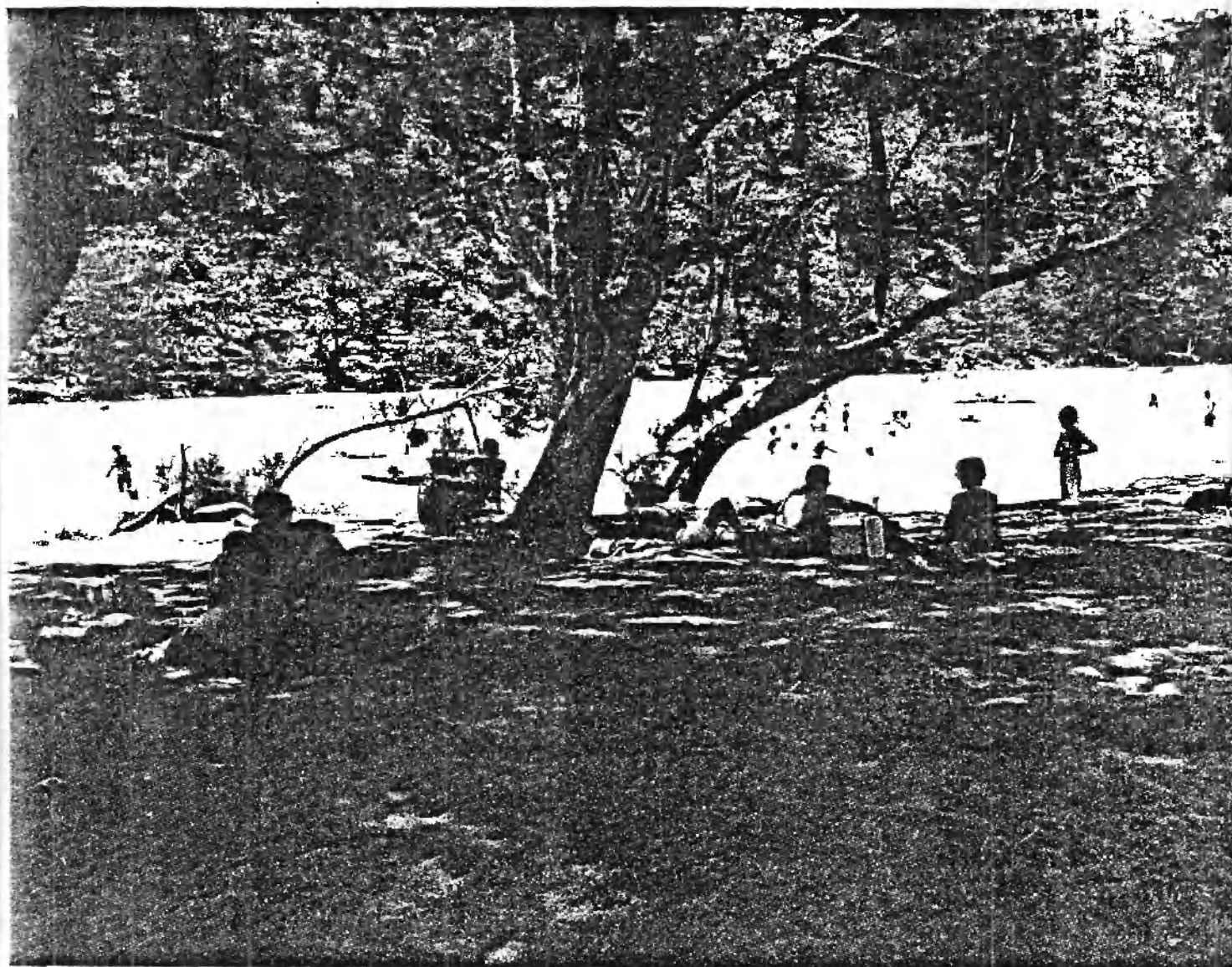
### 3.2 River and Creek Corridors

These corridors are defined along the Murrumbidgee, Molonglo and lower Gudgenby Rivers and Ginninderra Creek.

The Murrumbidgee River enters the ACT at Angle Crossing and flows for about 60km through the Territory before leaving it about 3km downstream of its confluence with the Molonglo River. The river corridor contains a diverse range of environments, including steep, relatively inaccessible gorges of high scenic value but limited recreational capacity, areas of rock outcrops, rapids and sandy beaches through gentler sloping terrain which attract a range of recreational uses, and sections bounded by river flats where the river is deep and placid with steep banks and the water is particularly suitable for boating.

Higher in the catchment the Murrumbidgee and its tributaries flow through extensive tracts of granite country and in high flow periods carry downstream loads of sand which are deposited along the banks of the river, creating attractive beaches. Native casuarinas grow at many points along the rivers, adding to the quality of the river environment. Where the rivers flow through steep terrain, they are often bounded by native forest or woodland including some of the most significant stands of black cypress pine in the Territory. Native and manmade features such as these make the river system an invaluable ecological, cultural, scenic and recreation resource.

Ready access to the river is restricted to relatively few points and this largely dictates the patterns of recreational use. Riverside recreation areas provide the main points of public access to the rivers. These are located on the Murrumbidgee at Angle Crossing, Smiths Road, Point Hut, Pine Island, Kambah Pool, Cotter, Casuarina Sands and Uriarra Crossing.



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Casuarina Sands is a popular riverside recreation area because of its large pool with a fringe cover of Casuarinas.

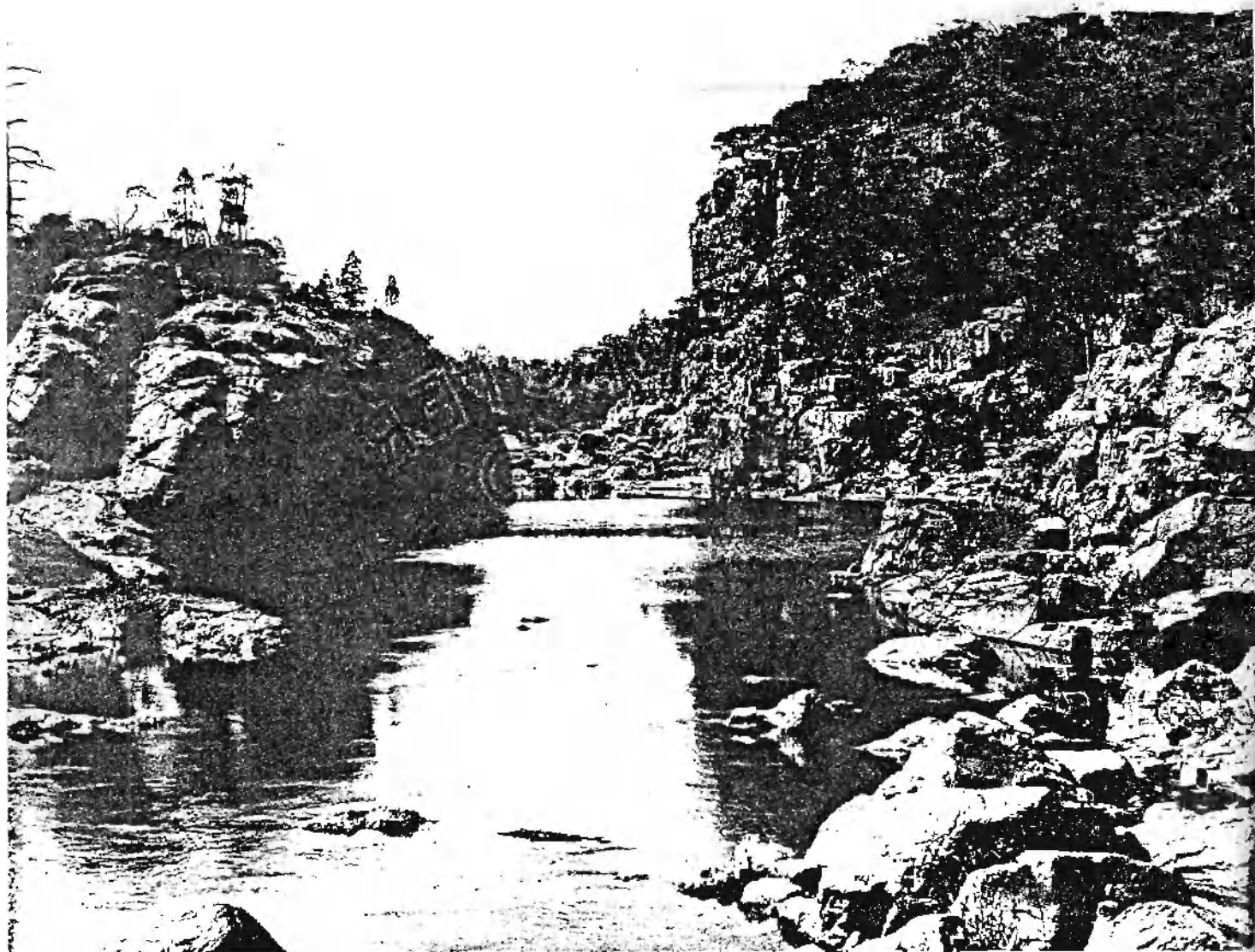
A good deal of the Murrumbidgee river corridor is used for rural activities including grazing of sheep, cattle, horses and goats and, on a number of river flats, cultivation of lucerne, oats, wheat and other crops. Most of this is rural leasehold land which falls within larger holdings often extending beyond the corridor. Some areas have been withdrawn from lease and agistment grazing now occurs on Commonwealth land which has been allocated for future urban development or forest management.

Part of the eastern slopes of Bullen Range, the western side of the Murrumbidgee bordering Uriarra Forest downstream of Casuarina Sands and the land west of the river downstream of Angle Crossing are managed in association with neighbouring pine plantations.

Variability in stream flow and water quality is important in terms of planning for recreation along the Murrumbidgee River. On rare occasions the river ceases to flow while at other times floods up to 20 metres high are possible. This has design implications for the safety of bridges and the siting of buildings and structures for recreational use. Extensive tree planting can increase flood heights.

The water quality of the river has been a major planning issue in recent years, leading to the construction of the Lower Molonglo Water Quality Control Centre to produce an exceptionally high quality of treated sewage effluent and the planning of an urban lake in Tuggeranong to protect the river against the impacts of urban runoff.

The Molonglo River enters the ACT near Burbong Bridge and flows for about 60 km through the Territory before joining the Murrumbidgee River. While its flow is less substantial than the Murrumbidgee, its environment is similarly diverse and includes Lake Burley Griffin as a major feature. Recreational access is provided also at Molonglo Gorge and Coppins Crossing. Most of the river corridor outside Lake Burley Griffin is currently within either rural holdings or pine forests.



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Red Rocks Gorge provides some of the most  
spectacular river scenery along the  
Murrumbidgee River in the A.C.T.

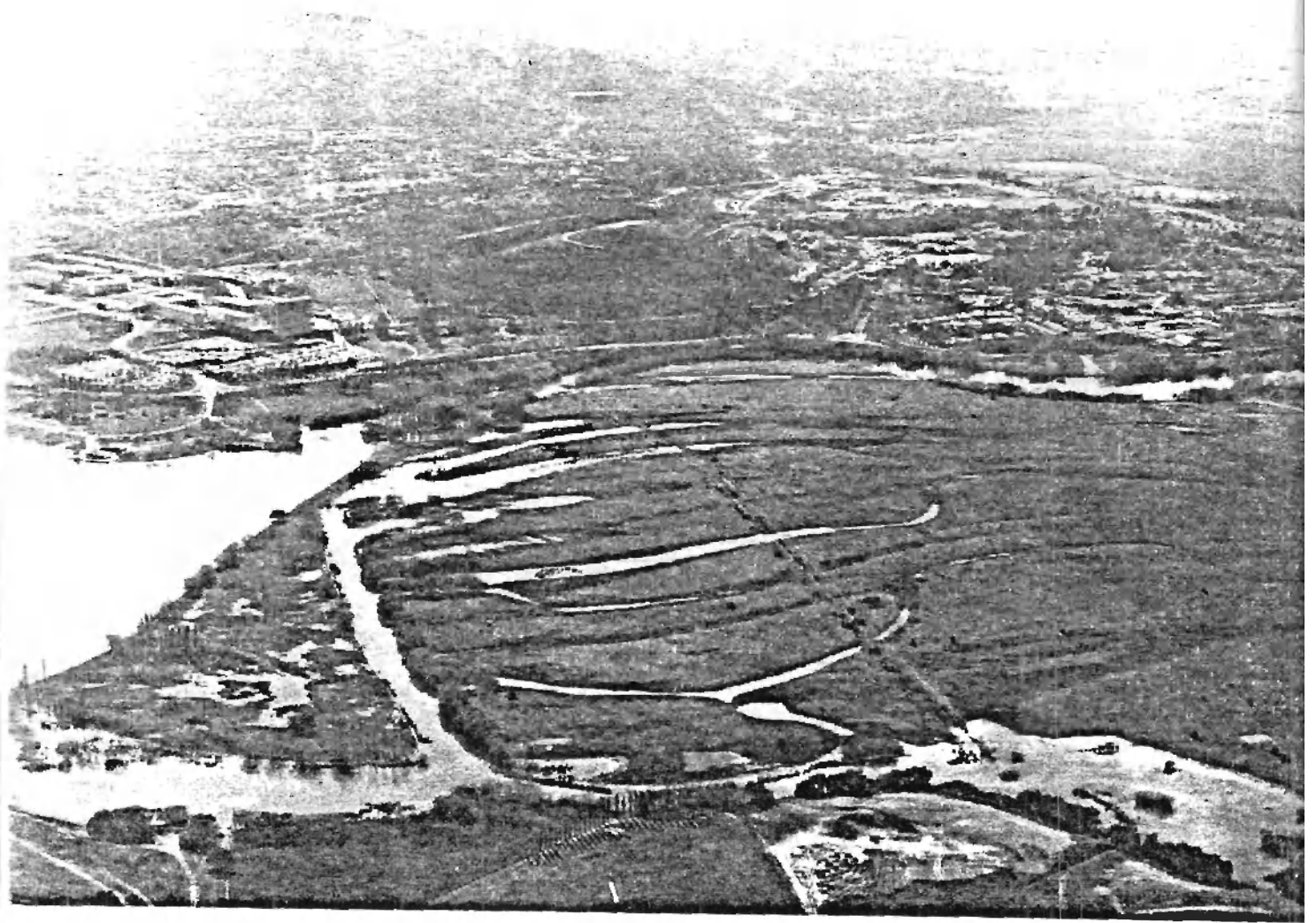
The 3.5 km section of the Gudgenby River downstream of the proposed Tennent Dam site is included within NCOSS. The upstream part of the Gudgenby River and the Naas River lie within the Gudgenby Nature Reserve. The lower section is accessible from Smiths Road and Naas Road although rural leases prevent public access to the river along much of the section.

Ginninderra Creek rises in the Gungahlin hills along the northern ACT border and flows for 24km in a south-westerly and westerly direction, through the Gungahlin and Belconnen areas, to enter the Murrumbidgee River north west of the ACT. The lower reaches, which include Ginninderra Falls, lie in NSW.

The section of Ginninderra Creek through Belconnen has long been modified from its natural state by rural land-use activities and most of the native vegetation has been replaced by introduced trees, such as the willows which line much of the banks. In a physical sense the rural character of the creek has been retained, despite the development of the surrounding urban areas, and reinforced by additional landscape plantings. It is the most "natural" of the urban creeks, although compared with the river corridors, the landscape of the creek within Belconnen has an obviously urban character.

Since European settlement of the Canberra area, the river corridors have been used extensively for grazing and cultivation and the early rural landholders have left a considerable historic record of their presence. Old buildings, cemeteries, farm equipment, homestead gardens, fences and other evidence remains in varying states of disrepair. Among the most significant and best preserved historic sites are those associated with the Lanyon and Lambrigg Homesteads in the Murrumbidgee River Corridor.

The river corridors also contain considerable evidence of former Aboriginal occupation from artifacts at many locations. A recent archaeological survey carried out for the NCDC revealed 173 sites in the 60 kilometre section of the Murrumbidgee River corridor from Angle Crossing to the northern border of the ACT. 127 of these sites provide prehistoric evidence of Aboriginal occupation and the remainder are historic sites related to European settlement. A number of sites of former Aboriginal occupation has been identified along the Molonglo River and elsewhere in the Canberra area.



Molonglo Reach above Lake Burley  
Griffin and Dairy Flat floodplain.

### 3.3 Urban Lakes and Waterways

Lake Burley Griffin and Lake Ginninderra lie within the Molonglo River and Ginninderra Creek corridors respectively, but contrast with the rest of these corridors in terms of their landscape character, their physical characteristics and the nature and intensity of their use.

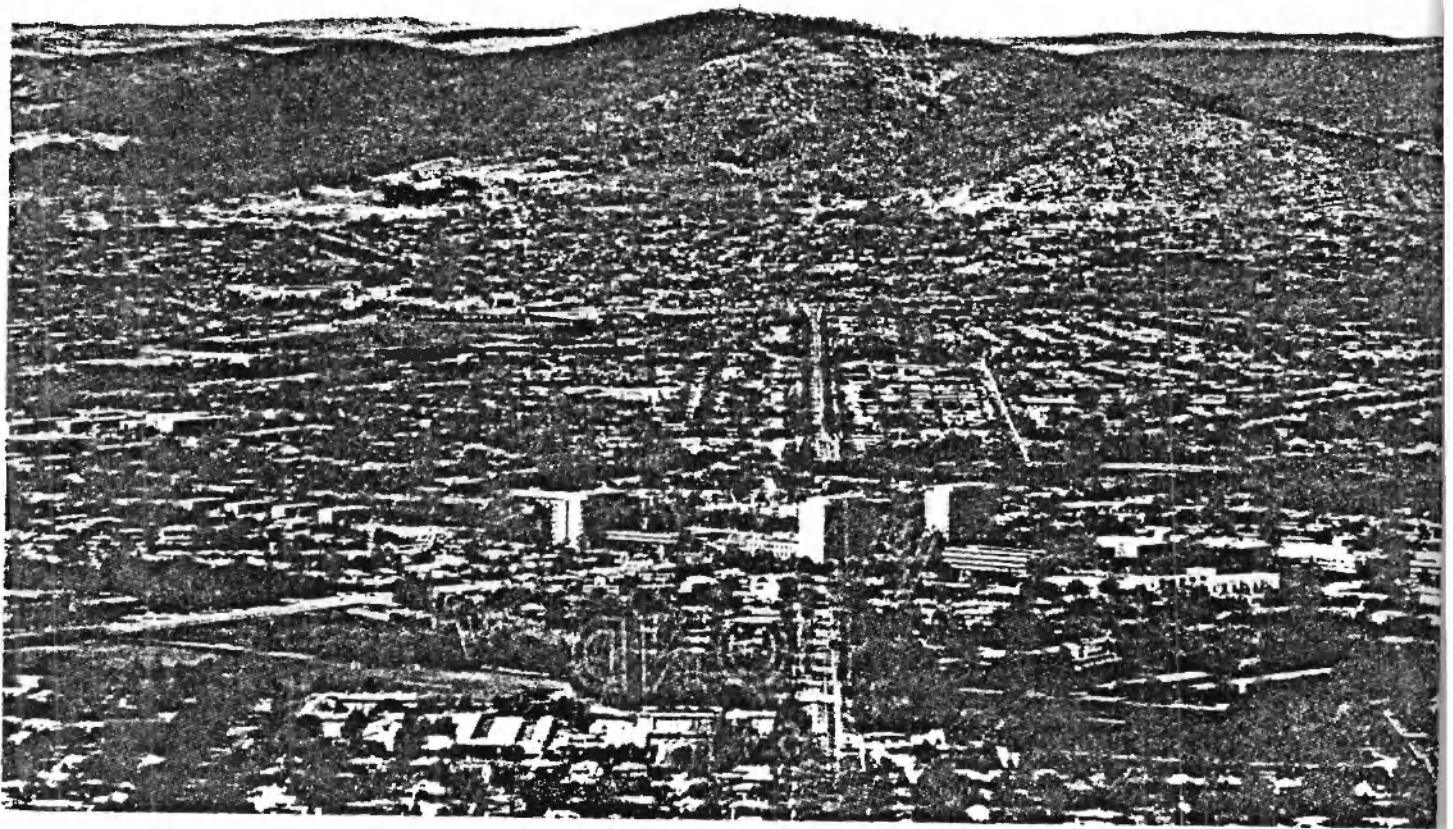
Both are artificial lakes, created as multi-purpose facilities for landscape enhancement, recreation and water quality control. Lake Burley Griffin was the central feature of Griffin's plan for Canberra, although it was not filled until 1964. Lake Ginninderra was created in 1973 to enhance the setting of the Belconnen Town Centre.

The foreshores of both lakes have been developed largely as a parkland environment through extensive planting together with provision of recreation facilities at several points. Shallow water margins or backwaters have developed into waterbird habitat of regional significance, the most valuable area being the Jerrabomberra Wetlands at the eastern end of Lake Burley Griffin. However, upstream of Dairy Flat bridge the Molonglo River is used for recreation, principally power-boating and water skiing, which is not allowed on the lake. Expansion of this activity in time could require better access and public facilities.

Despite receiving urban runoff and, in the case of Lake Burley Griffin, treated sewage effluent from Queanbeyan, the water quality of the lakes is generally suitable for swimming, but the water is relatively turbid. The growth of aquatic weeds (macrophytes) and floating algae during certain seasons can detract from the recreation value of the lakes and create management problems.

In the longer term further upgrading of the Queanbeyan sewage system may be required to fully protect Lake Burley Griffin and nutrient levels in the lakes will have to be controlled to inhibit weed growth.





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Mt Ainslie and other hill areas are to be preserved from urban development and their essential landscape/environmental character retained and reinforced so as to provide the unified background and landscape setting for the National Capital.



### 3.4 Hill Areas

Unlike the river corridors which are continuous systems, the hill areas are a series of only partially linked or separate entities, generally surrounded by urban or rural development. Being closer to the urban areas they tend to be more accessible physically and visually to the population than are most parts of the river corridors and form an important backdrop to the city. While the hills are physically separate, they are diverse in character and can serve complementary functions with respect to the different pressures on them. They are to be considered as an integrated system for planning and management purposes due to their scenic, recreational and ecological value.

The hill areas can be grouped into five types according to their visual impact and function. (See Figure 9).

- . Inner National Area Hills

These are hills that directly impact on the National Area. The main emphasis here is to preserve a dominance of woodland on the crest lines and the middle to upper slopes, with nothing to be visible which might detract from them as key elements in the Griffin plan and as a background to the formal composition of the central area.

- . Prominent Hills from Inner Canberra

This category covers hills and ridges that are visible from the central area but have an impact on the new towns. These contain the spread of urban development and provide a continuous background. The emphasis is on maintaining and/or reinforcing the inherent landscape character while permitting public access and unobtrusive development in selected areas.

. Approach Hills and Hills on Major Tourist Routes

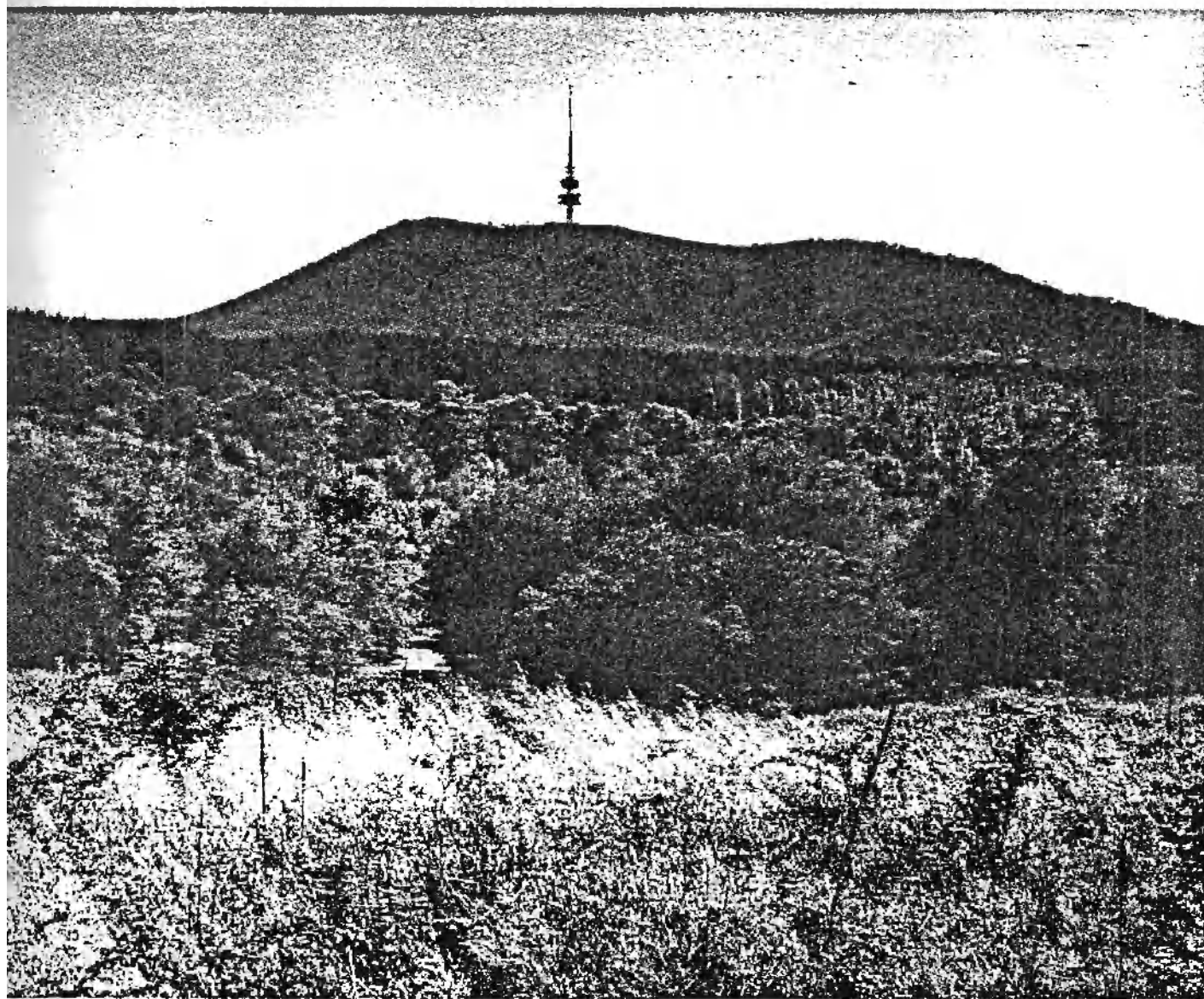
Approach hills are those that act as portals or gateways for the main approach routes to the ACT and the National Capital where a transition occurs from open countryside to urban or semi-urban development. Here the emphasis is on maintaining the rural character as a means of dramatising the change from one landscape to another. From a tourist viewpoint, important hills in this category include those which act as portals to an approach to Canberra Airport, and those on the major tourist drives within the ACT.

. River Corridor Hills

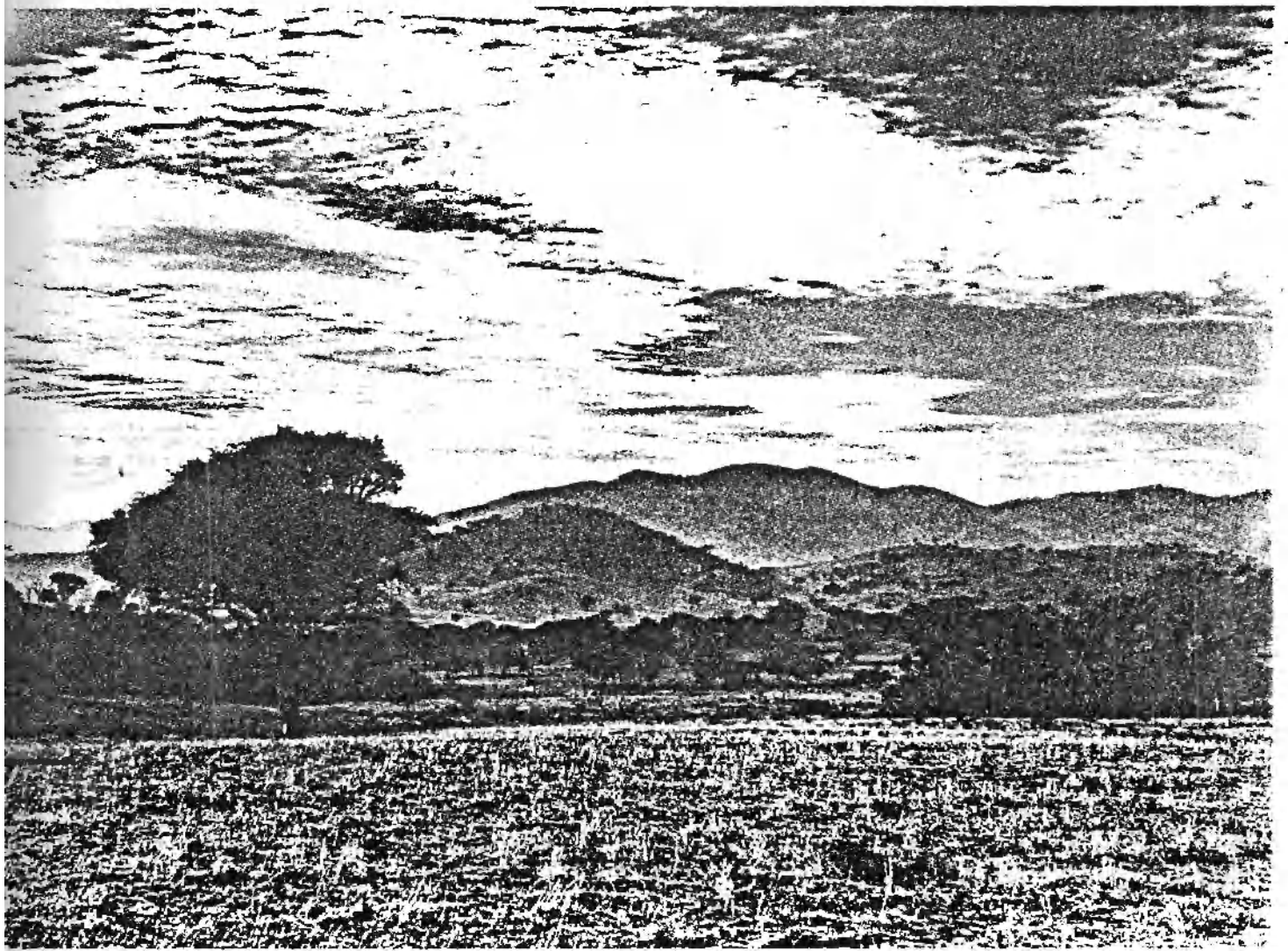
These are hills and ridges that are visually part of the river corridor without distinguishable boundaries between the river and the skyline. The main concern is to extend and reinforce the "sense of escape" and separation from the built-up area. Some of these hill areas also have a two-way impact by defining the river corridor on one side and the urban edge on the other, particularly Lanyon Hill and Stranger Hill in Tuggeranong. Other hills such as Mount Stromlo and Castle Hill, are some distance away from the actual river corridor yet their size and prominence makes them important visual components of that corridor.

. Background Hills and Hills that Define Town Areas

This category covers hills and ridges that visually define the spread of town areas and act as a backdrop to urban development. The emphasis here is to provide containment to the towns, to establish the landscape character within the hills and ridges appropriate to the town area to provide visual relief, wildlife movement corridors and access for local recreational use.







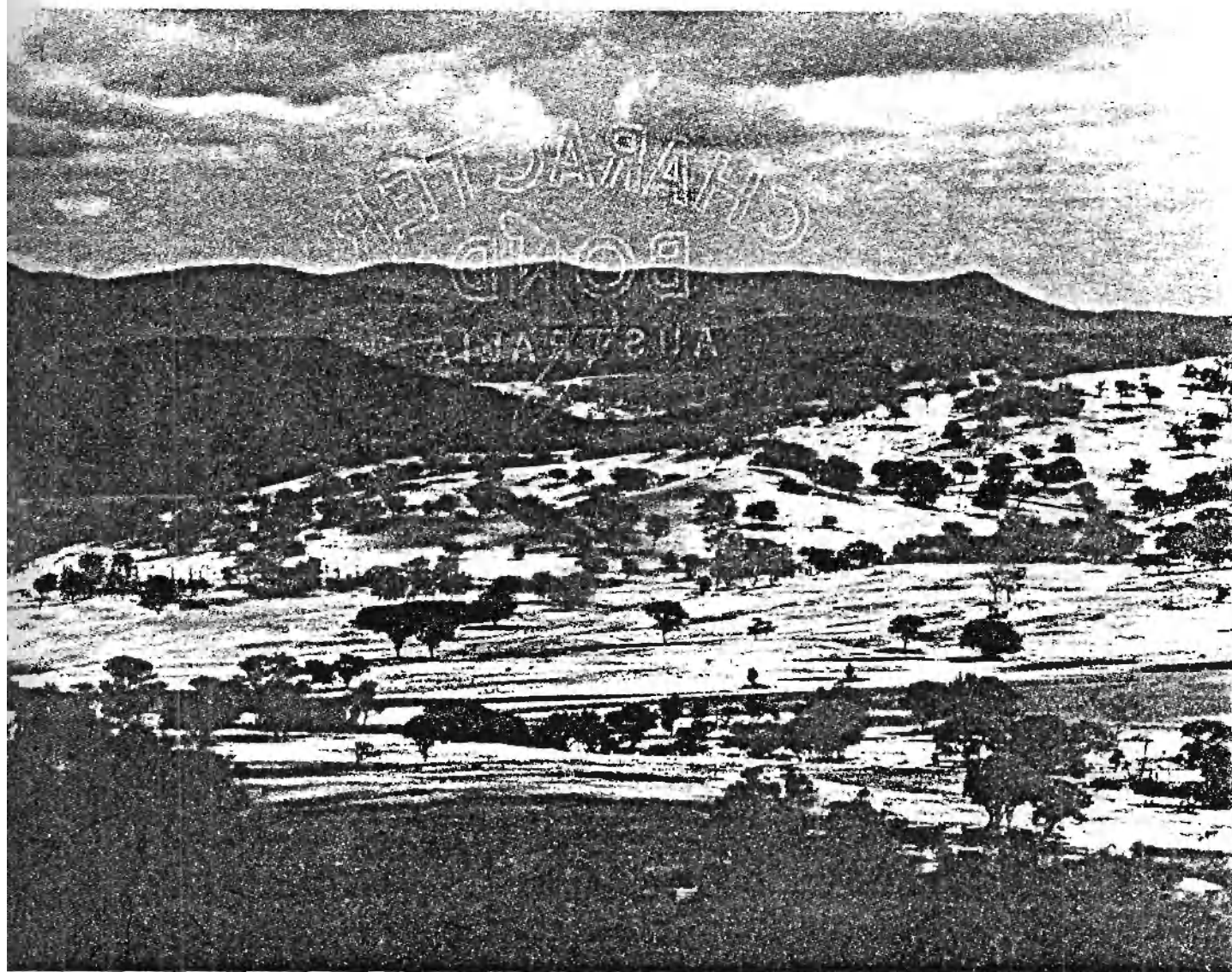
Certain of the hills closer in are visually more important than others. The most important are those which are seen from and form part of the National Area. The symmetrical tree-covered form of Mount Ainslie terminates the main land axis in the north. Black Mountain, which rises 240 metres above Lake Burley Griffin, terminates many important views in the centre of the city and forms part of the range which divides North Canberra from Belconnen. Red Hill ridge, covered by open grassland dotted with eucalypts, separates Woden from South Canberra, terminates the land axis in the south and provides an impressive background for South Canberra. All three provide elevated viewpoints over the city and the central area.

The next in order of importance are the hills and ridges that form part of the outer areas of Canberra and define the areas into which the City is expanding. Some of the hills are only of local importance whereas others are of special interest because they are also related to, and are visually prominent from the approach corridors on the periphery of urban areas. These include Stromlo, Taylor, Painter, Wanniassa Ridge, Oakey Hill, Bruce Ridge, the hills on the north defining the ACT and the pine-covered slopes to the east of the airport.

The contrast in appearance between individual hills is largely a function of vegetation cover, ranging from the natural forest or dense woodland through modified savannah woodland and grassland to plantations of pines.

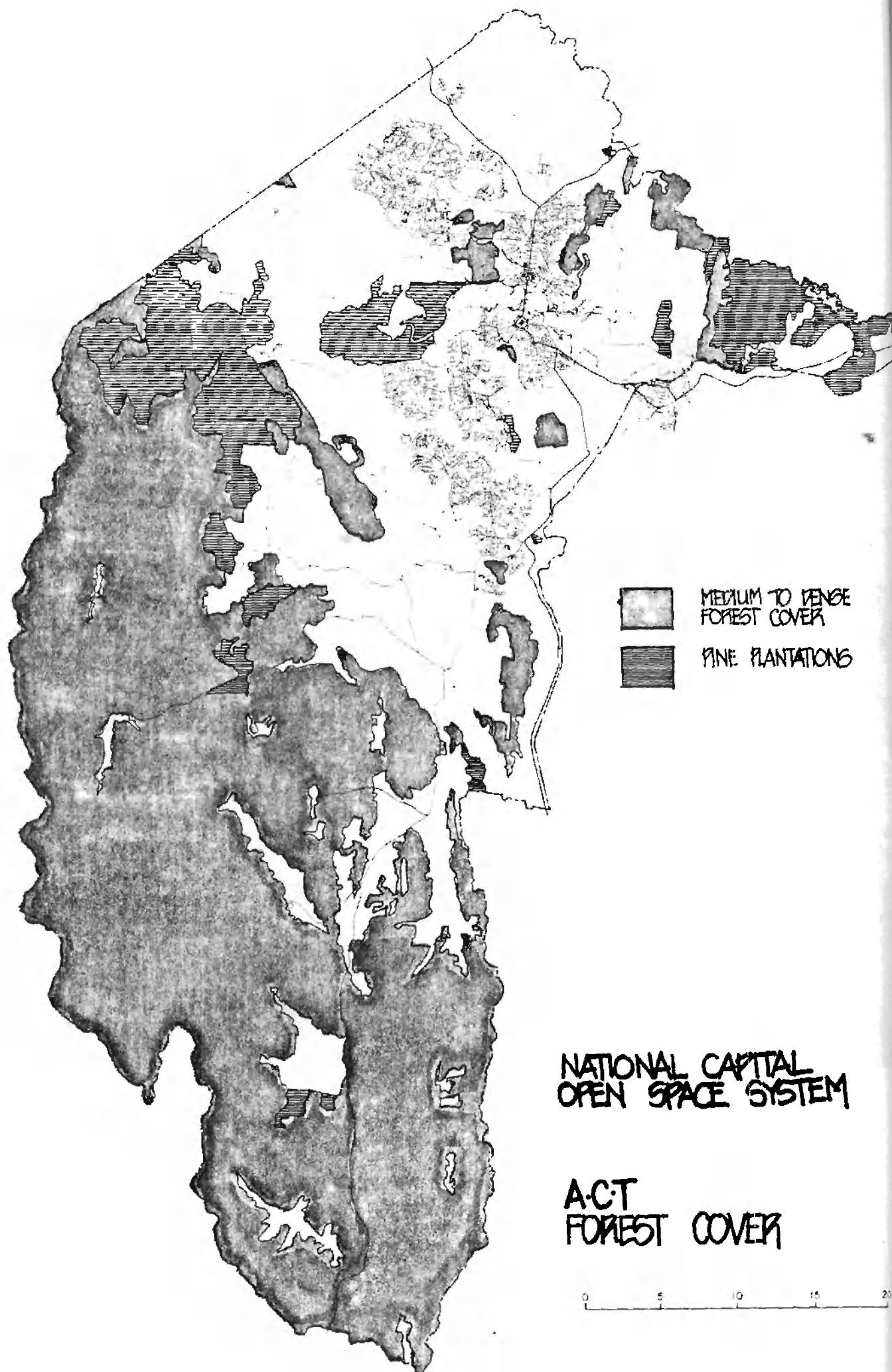
As well as providing a visual backdrop and landscape setting for the National Capital, the hill areas help to supplement urban open space, give opportunities for education and research, provide wildlife movement corridors and service corridors for the developing urban areas. Some hill areas are also suitable for the location of special developments and associated urban land uses.





Pieter Arriens

Typical hill and ridge country in  
ACT showing the vegetation pattern  
varying from densely wooded slopes  
to open grass land.





In the National Capital sense, some hills have a certain recreational role, particularly in providing tourist lookouts and associated activities, and to a lesser extent catering for tourists who enjoy activities such as walking or picnicking. The major recreational role of the hills, however, is in serving the local population. Recreational use of the hills includes walking, jogging, cross country running, orienteering, children's playing, horse riding, picnicking, sightseeing, birdwatching, amateur nature study and exercising dogs. All these activities are currently pursued at a relatively low intensity.

As well as providing wildlife habitats and movement corridors used by kangaroos, migrating birds and other small animals, the hills contain features of ecological, geological, historical and archaeological significance which deserve special protection and/or display for education or research purposes. Many primary and secondary schools make use of these features of the hills (particularly those within walking distance) for nature study and ecology projects. The hills are also used by the ANU and CCAE for appropriate practical work. A number of research organisations also use areas on the hills for specific scientific studies. In addition, the hills have the potential for displaying a range of local ecological communities for scientific reference.

The hills also need to accommodate utilities which are essential to the accepted standard of development in Canberra. These include certain telecommunications facilities, survey points, aircraft warning lights and water storage reservoirs. The lower slopes contain electricity lines and substations, water mains and cycle paths. The summits of Black Mountain, Mt Ainslie and Red Hill are developed for tourist purposes. The western side of Mt Mugga has been developed as a major quarry. Most of these facilities require access roads or tracks.

### 3.5 Mountain and Bushland Areas

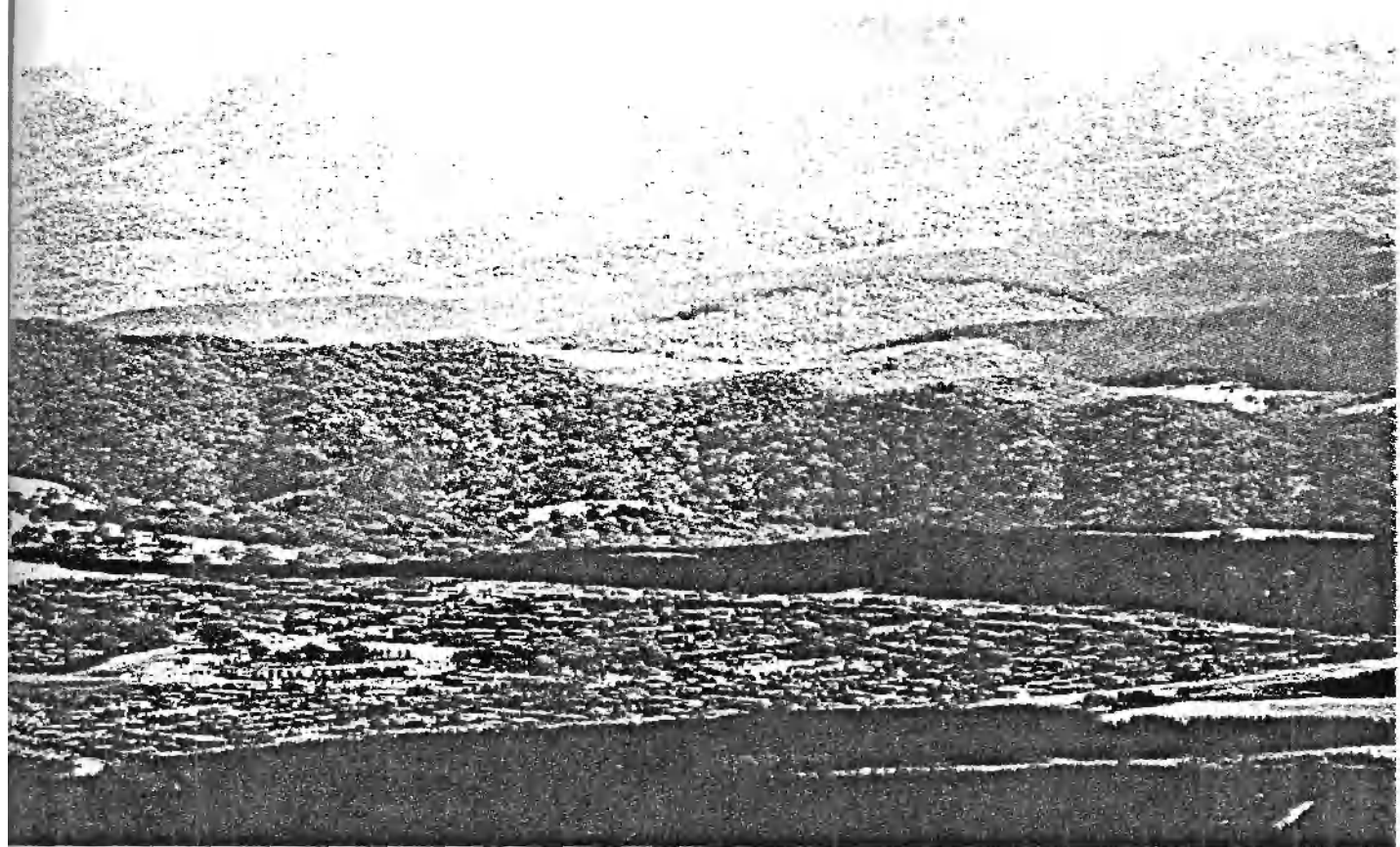
Mountain and bushland areas comprise those lands of the ACT which lie west of the Murrumbidgee River and are characterised by mountain ranges and valleys, many of which contain native vegetation in an essentially natural state. The main components of this outer portion of the open space system are (see Figure 11):

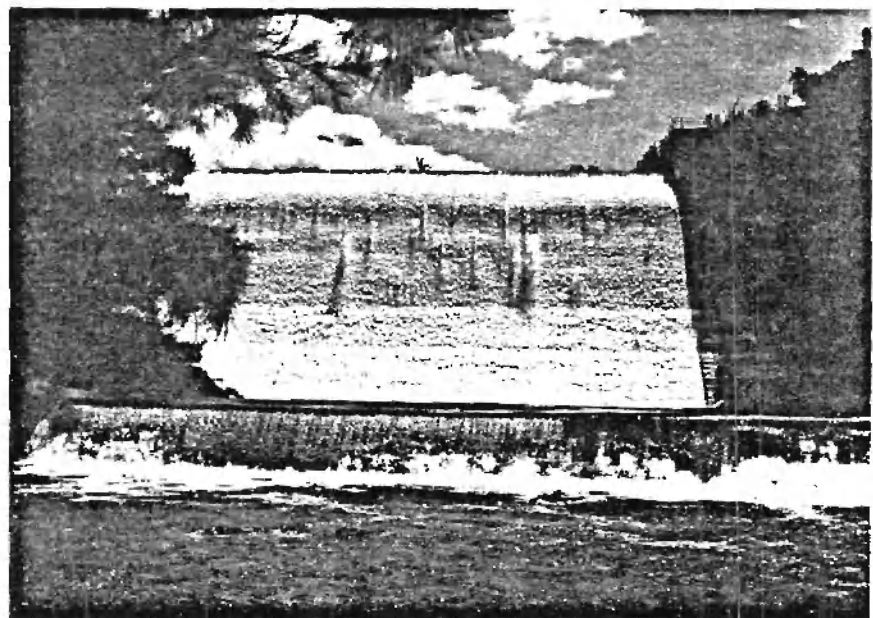
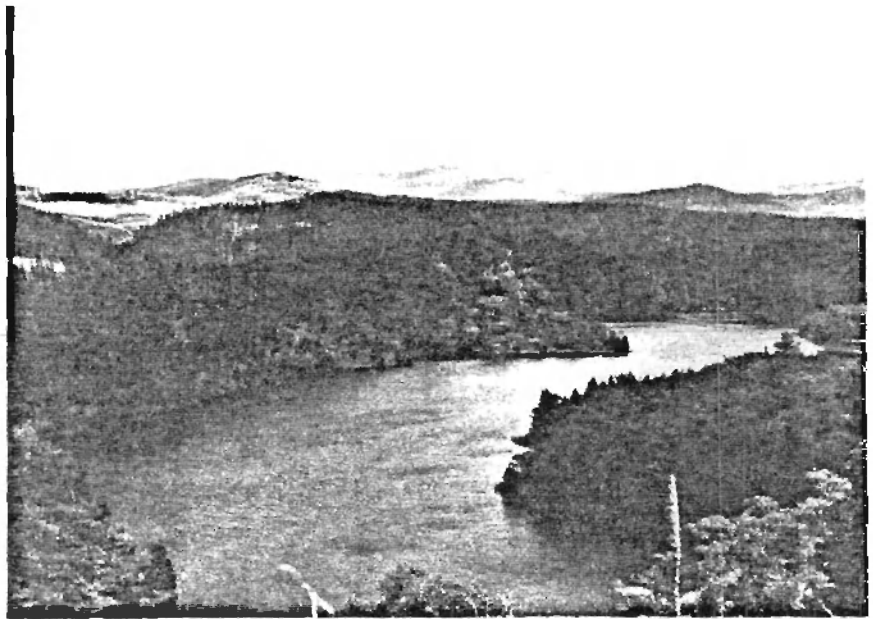
- . the Cotter Catchment area
- . the Gudgenby area including the Gudgenby Nature Reserve and land to the north along the Lower Naas and Gudgenby valleys, the Blue Gum Creek area and Mt Tennent
- . the Gibraltar Creek area
- . the Tidbinbilla area including the Tidbinbilla Nature Reserve; and
- . the Blue Range area, north of the Cotter Catchment.

Some of the higher mountain ranges of these areas form part of the general mountain background for the city and can be seen from most parts of Canberra.

Over 90 per cent of the mountain and bushland areas is unleased Commonwealth-owned land, used for a number of purposes based upon the natural land and water resources. A considerable proportion is now used and managed for nature conservation purposes and low-intensity bushland recreation.

The Cotter Catchment is regarded primarily as a water supply catchment containing three dams with a combined storage capable of serving an equivalent population of 225,000 persons. The quality of the water from most of the catchment is extremely high, partly as a result of a restricted use policy which virtually excludes public use from the upper and middle parts of the catchment. Nevertheless the catchment resources serve a number of other purposes, perhaps the most significant of which is nature conservation. The area functions as an extension of the natural bushland in the Gudgenby area, and a link with Kosciusko National Park. The lower catchment with its pine plantations is a major component of the ACT's softwood timber resources, providing also for recreational activities such as picnicking, pleasure driving, trail bike riding and orienteering. Grazing is totally excluded from the catchment.





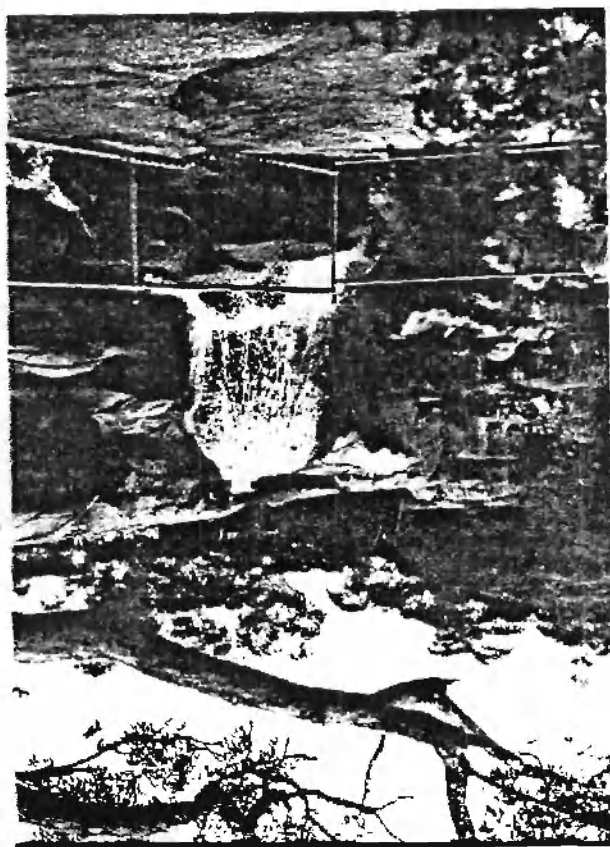
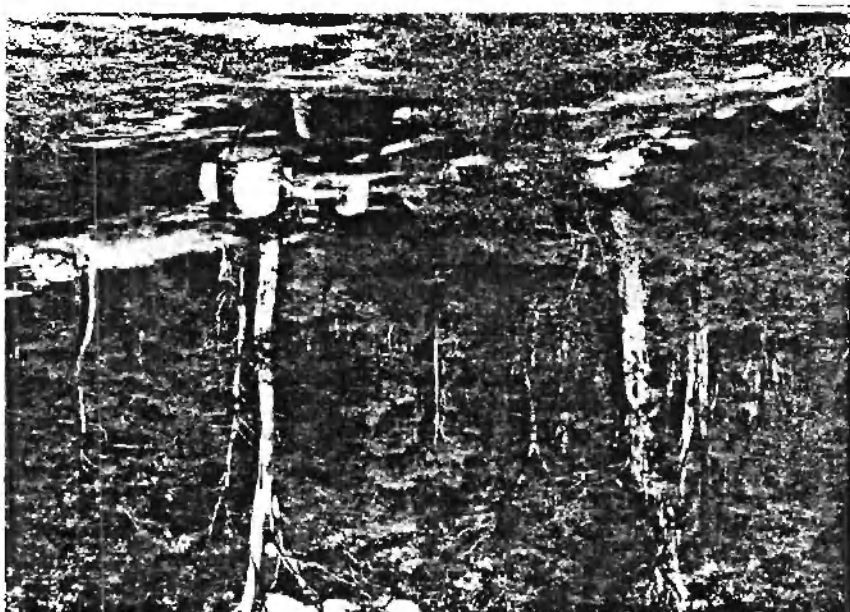
Other pine plantations in the mountain and bushland areas include the Tidbinbilla Pine Forest, the Gibraltar Creek Pine Forest and the Boboyan Pine Forests. At present, all forestry activities are centred on the pine forests and no hardwood logging is undertaken in the ACT.

Rural land use has now ceased in most of the area and is largely confined to the lower Naas and Gudgenby valleys on either Commonwealth land or leasehold land. A number of holdings within the outer boundary of Gudgenby Nature Reserve has remained under freehold or leasehold tenure. Some forested land to the north of the reserve is still used intermittently for grazing.

The environment of the mountain and bushland areas differs greatly from the lowlands in the north and east of the ACT, in response to the higher elevations and cooler climate of these areas. The land rises steeply from the lower Cotter and Naas-Gudgenby valleys at 500 to 600 metres to the highest peaks of the ranges at 1,600 to 1,900 metres. At lower elevations, where temperatures are relatively mild, forest communities are the principal vegetation types. The high mountain ridges have a subalpine environment in which severe frosts and winter snows occur, giving rise to a complex of woodland, grassland, shrub and sedge communities, in preference to forest.

In ecological terms, the minor vegetation communities of the subalpine environment provide a rich diversity of plant and animal habitats which add to those of the mountain forests. The area as a whole constitutes a large and diverse ecological resource which, in association with the Snowy Mountains and Brindabella Ranges, forms a vast interconnected area of native vegetation and wildlife habitat. Within this area, there are many features of special ecological interest including plant communities which are not well represented in the region, habitats for uncommon or rare plants or for uncommon animals, and aquatic and wetland habitats of significance.

In June 1984, the Minister for Territories and Local Government, Mr Uren, announced that he intended to declare the existing Gudgenby Nature Reserve and the adjoining Cotter River catchment area as a national park. The park would occupy



about 94,000 hectares and incorporate most of the higher land in the ACT, including the only extensive area with sub-alpine climate and significant snow cover. Namadgi, the aboriginal name for the mountainous region of what is now the ACT has been chosen as the name of Namadgi National Park.

Sites of past Aboriginal occupation exist throughout the Cotter, Tidbinbilla, Gibraltar and Gudgenby areas, being mostly rock shelters with flakes and stone tools, some having Aboriginal paintings or stone arrangements. Some of these reflect the annual movement of the Aborigines into the high country in search of the rich food source provided by large populations of the Bogong Moth, which shelter in rocky areas along the ranges each spring.

European settlement in the region, dating back to the 1830s, can be interpreted from remaining historic sites, most of which are old farm houses, outbuildings, huts, fences and stockyards in various states of disrepair. The majority of these structures lie in the Gudgenby area where there is a history of rural land use.

### 3.6 Associated Rural Landscape Areas

The associated rural landscape areas are not part of the National Capital Open Space System but complement it in the following ways. They support it in a landscape sense, providing the foreground to the views of the river corridors and mountains and distant bushland areas. They form a buffer area around the river corridors, providing protection to nature conservation areas and separating the river corridors from areas of urban development. They also represent the major component of the Territory's land bank, one function of which is to provide areas of land for possible future tourist-related development, which could ease recreational pressure on the river corridors. However, such development would need to be consistent with the primary function as rural landscape foreground areas.

The associated rural landscape areas are shown on Figure 13 and include:

- the Bulgar Creek - New Station Creek - McQuoid Creek area. This area acts as a foreground to enhance views from the Cotter Road and Kambah Pool Road of the

Murrumbidgee Escarpment and the triple-tiered backdrop of mountain ranges beyond the river.

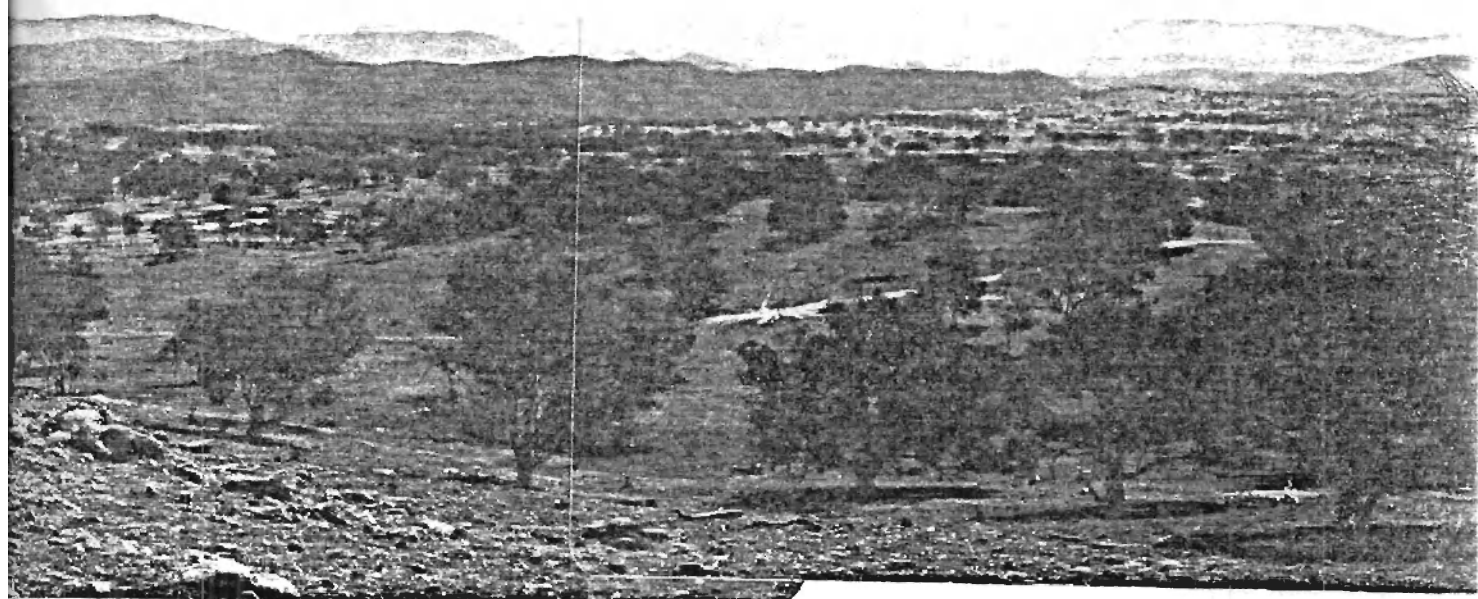
- . the Paddys River valley including the Booroomba valley.
- . the South Lanyon and Riverview (West Murrumbidgee) areas in Tuggeranong, including Sawyers Gully. These areas provide extensive and dramatic views to steeply wooded and partly wooded hills, and to open savannah woodland that gives a parkland appearance and defines the edge of the alluvial plain. The areas also include the rural surrounds to the Lanyon and Lanbrigg historical sites.
- . the Lower Molonglo Valley southern slopes. This provides a foreground to extensive views of the mountain ranges and the Murrumbidgee River from Coppins Crossing Road, William Hovell Drive and the proposed recreation trail following the Molonglo sewer construction road.
- . the Uriarra area, and
- . the Pialligo - Abattoir stock holding paddock area.

The combination of savannah woodland and open land frames first views of Canberra when approached from the east along Fairbairn Avenue. It is also part of the rural surrounds to the Airport and to the Oaks Historical Site.

The landscape function of these areas must be interpreted in relation to the outer hills and mountains that form the backdrop in views from Canberra and the tourist roads. Not all of these areas are readily accessible to public view, but those that are, in particular Paddys River Valley, Bulgar Creek, and Lower Molonglo Valley, were identified as 'essential landscape foreground areas' in the 1975 Land Use Plan for the ACT. Some of the key landscapes occur on tourist drives within the ACT and others on approach corridors, in particularly the roads leading into the Territory.

The characteristic feature of these rural landscapes is the open savannah woodland character, which has come about through the thinning of natural woodland to allow intense grazing to take place. This feature is coming





increasingly under threat as a result of tree decline and death, as the old trees which may face abnormal stresses in a modified environment are lost without adequate regeneration of young trees to replace them. This is a major issue in the preservation of these rural landscapes.

Most of the land in these areas is under traditional rural use, chiefly grazing of sheep and cattle. Horse agistment has become increasingly common in recent years as a result of the rising levels of horse ownership in Canberra. In some places poor management of horse agistment has led to overgrazing of pastures and damage to native trees, hastening the process of tree decline.

Some of the rural lands are used for broadacre Commonwealth uses, and the extent of land under such uses is likely to increase as the city grows. Both Commonwealth and other facilities can be located in these associated rural areas without destroying the essential pastoral landscape or compromising their role as landscape foregrounds to the open space system.

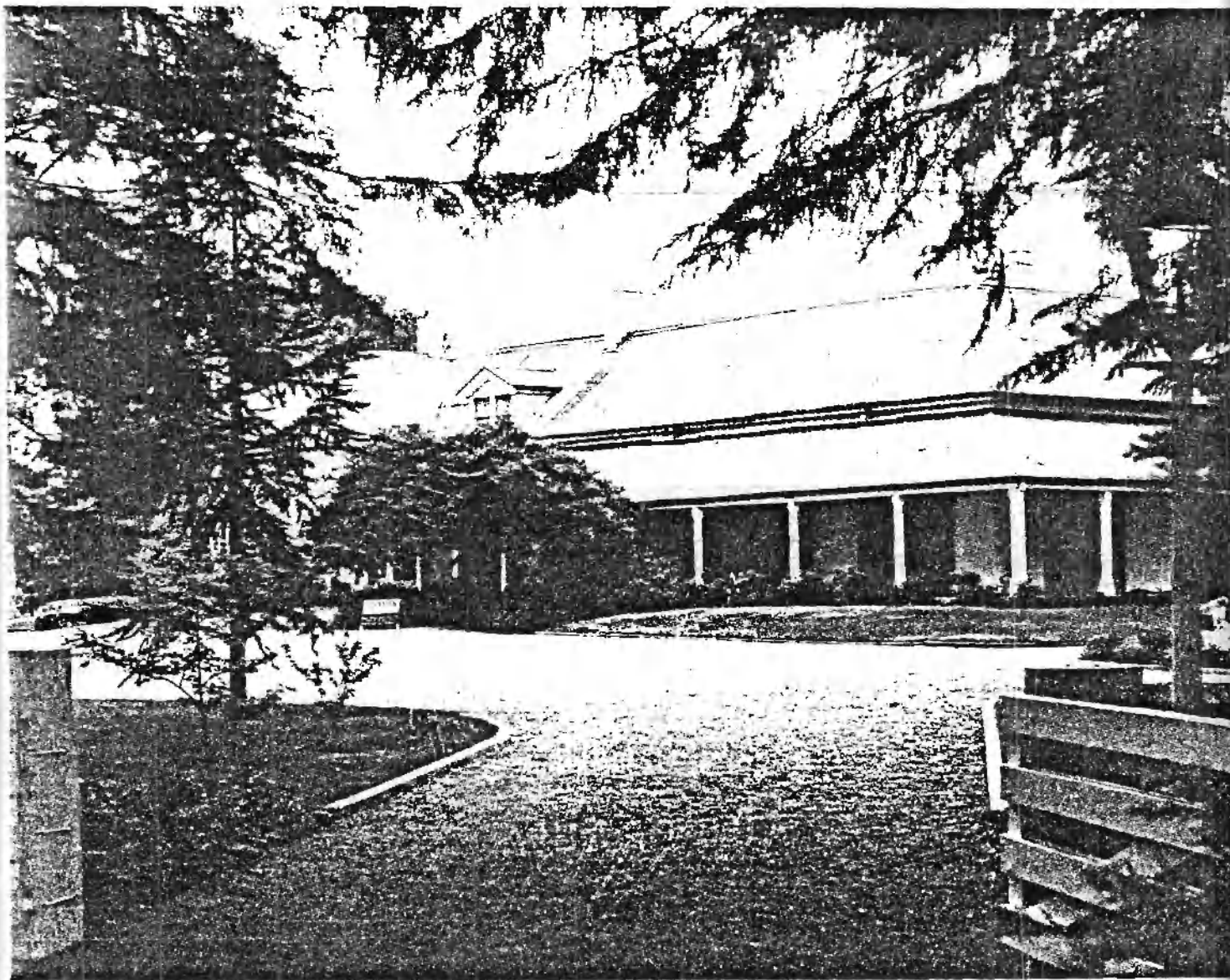
While the associated rural lands make a relatively small contribution to the natural resources of NCOS, this contribution should not be overlooked. The remaining native vegetation provides a seed source production which is often capable of initiating regeneration if the pressures of rural production are eased. Together with introduced species, it provides nesting and feeding habitat for many native animals, which utilise the rural lands in combination with native and pine forests. It contributes to wildlife movement corridors which encourage kangaroos, birds and other wildlife to move freely between the hill areas close to the city and the more distant forests in the ACT. Other features of ecological interest within the rural areas include farm dams which provide habitat for water birds, dead trees and fallen timber that are utilised by small animals and remnant pockets of native grassland, which are now uncommon in the lower parts of the ACT.

In terms of cultural heritage the ACT rural areas as a whole constitute a visible link with Canberra's rural past. Within these areas there are such as Lanyon and Lambrigg Historic Sites, as well as a number of smaller rural buildings, other farm structures and ruins of earlier settlement which are of heritage value and public interest.



Pieter Arriens

The Lanyon-Riverview floodplain and  
savannah woodlands which provide the  
setting for Lanyon historic site.



N.C.D.C.

Lanyon homestead provides a visible  
link with Canberra's rural past.

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## Chapter 4

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#### 4.0 TRENDS AND NEEDS

With the growth of Canberra and of the number of visitors to the city, (estimated at 3,250,000 in 1984) increasing use is made of the National Capital Open Space System for recreation, more people come to realise its landscape and conservation values and demands arise for better access to the area. In addition, pressures will emerge for use of some of the area for National Capital purposes and for city services.

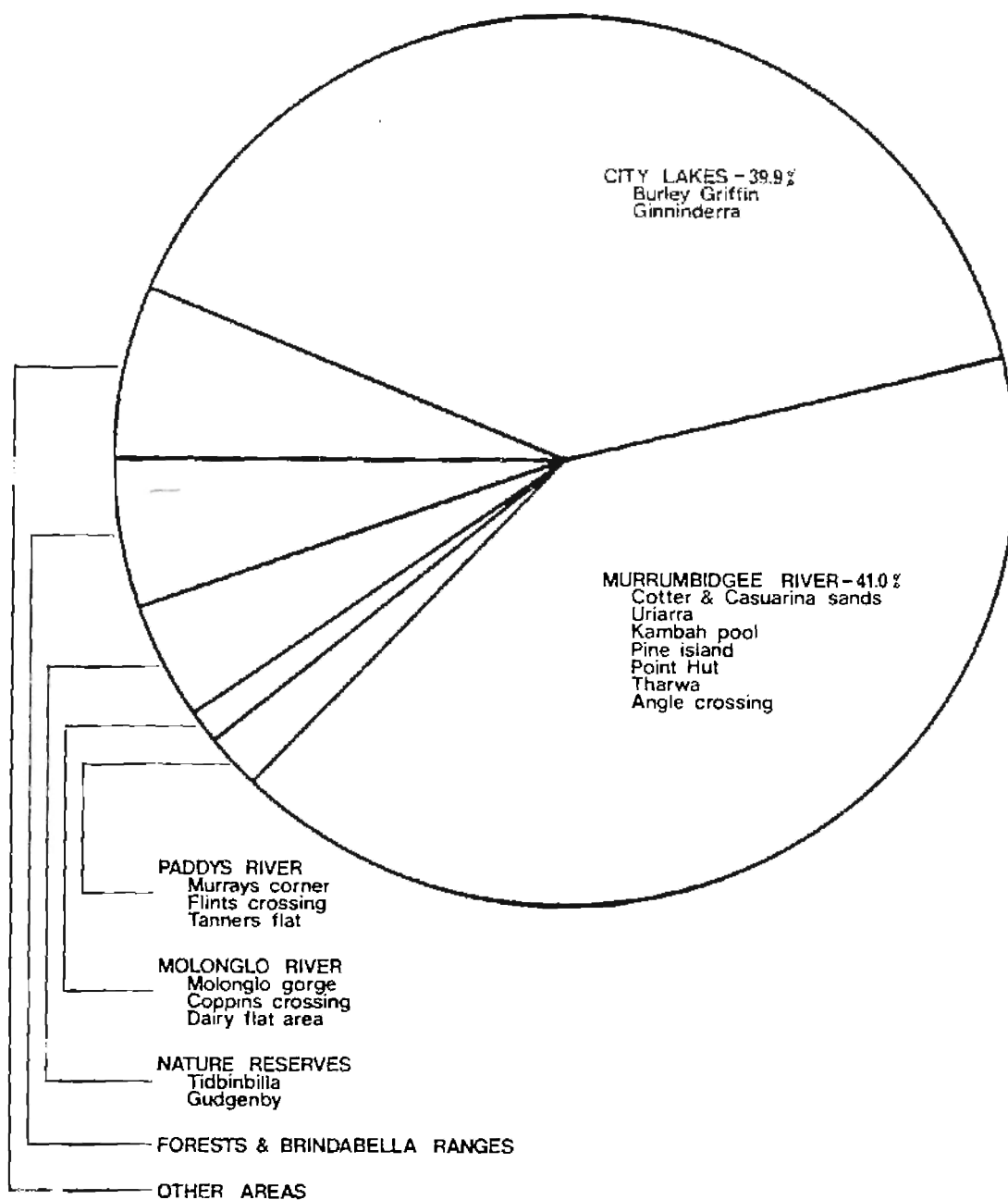
Some of these needs can be acknowledged only in a qualitative sense while others, particularly recreational use, lend themselves to monitoring. The following discussion summarises what is known about patterns of use of the National Capital Open Space System for recreation and education, access to NCOSS areas and various demands made on the open space as a consequence of urban growth and other land uses in the ACT.

#### 4.1 Recreation

##### 4.1.1 Rivers, lakes and associated areas

The National Capital Open Space System collectively represents a large and varied recreation resource which offers a range of recreational opportunities. The most popular type of recreation is picnicking and water-based recreation at riverside and lakeside sites where access and facilities are provided. Since 1970 the Commission has sponsored a number of major studies of recreation in these areas and several lesser studies of issues which took recreation needs into account.

In 1970 in his thesis, Changing Land Use in the Canberra Region, Boden recorded that on any fine summer Sunday, 18 per cent of the total Canberra/Queanbeyan population visited river and lakeside recreation areas. This percentage represented a total count of 26,200 people, and the findings of the report served as the basis of outdoor recreation predictions by the Commission through the early seventies.



National  
Capital  
Development  
Commission

November, 1980

# RIVER RECREATION DEMAND STUDY

## DISTRIBUTION OF DEMAND



TABLE 3

DISTRIBUTION OF VISITS TO OUTDOOR RECREATION AREAS ON  
FINE SUMMER SUNDAYS

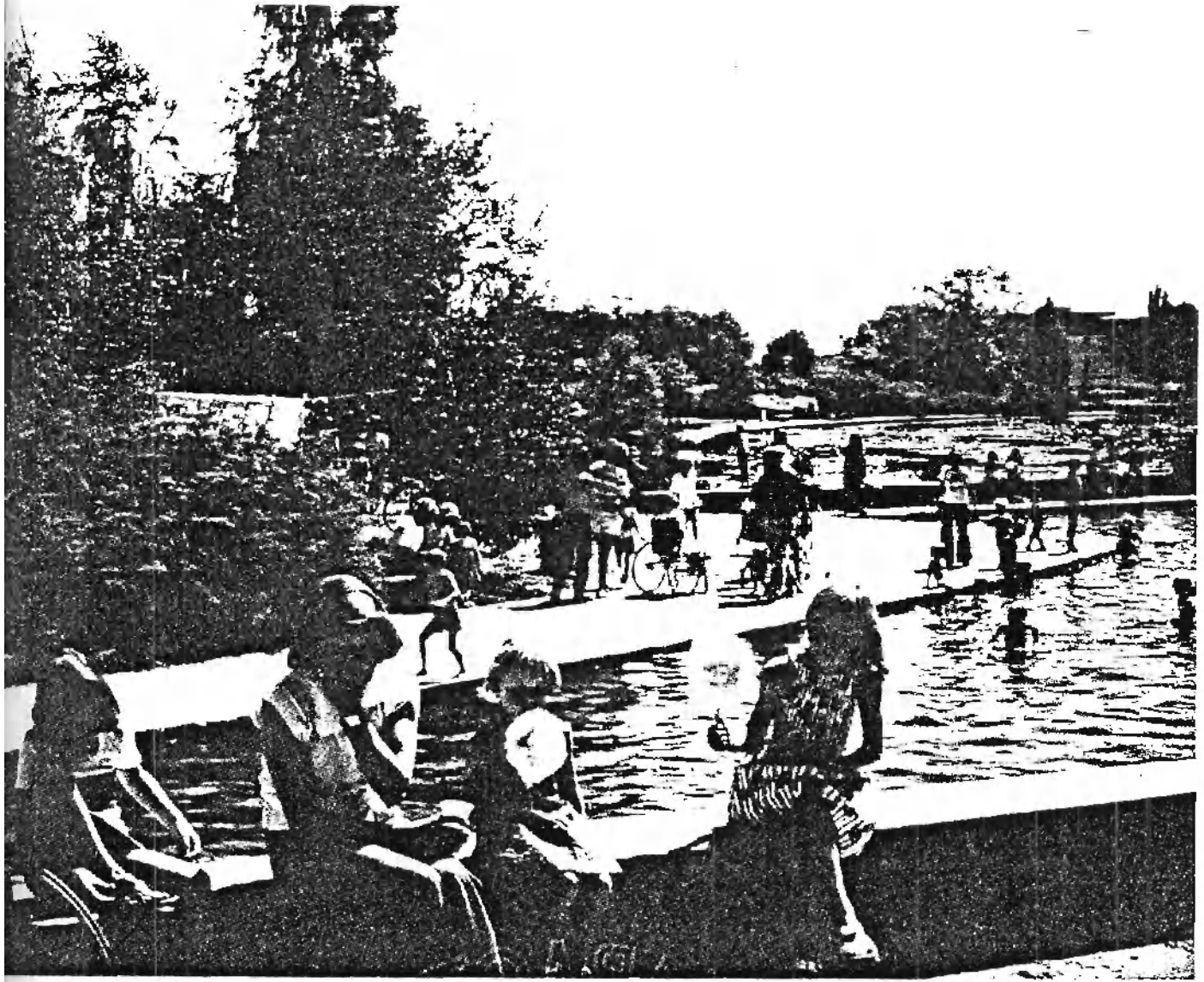
LOCATIONS	AVERAGE DAILY NO. OF VISITS	PERCENTAGE OF TOTAL VISITS
1) LAKES		
Lake Burley Griffin	14,000	
Lake Ginninderra	1,950	
Sub total	<u>15,950</u>	40%
2) MURRUMBIDGEE RIVER RECREATION AREAS		
Cotter and Casuarina Sands	9,990	
Uriarra Crossing	1,500	
Kambah Pool	1,600	
Pine Island	2,400	
Point Hut Crossing	550	
Tharwa	200	
Angle Crossing	150	
Sub total	<u>16,390</u>	41%
3) PADDY'S RIVER AREAS		
Murrays Corner	590	
Flints Crossing	90	
Tanners Flat	100	
Sub total	<u>780</u>	2%
4) MOLONGLO RIVER AREAS		
Molonglo Gorge	250	
Coppins Crossing	60	
Dairy Flat area	180	
Sub total	<u>490</u>	1.2%
5) NATURE RESERVES		
Tidbinbilla Nature Reserve	1,200	
Gudgenby Nature Reserve	500	
Sub total	<u>1,700</u>	4.2%
6) A.C.T. FORESTS AND BRINDABELLA RANGES	2,190	5.4%
7) OTHER AREAS	2,460	6.2%
TOTAL	39,960	100%

A follow-up survey, Outdoor Recreation Demand Study, by McMaster in 1975 updated the earlier Boden work and concentrated particularly on the use of the Murrumbidgee River Corridor in Tuggeranong. Counts were made during the summer of early 1975 and generally the results were consistent with Boden's figures from more than five years earlier. The participation rate was estimated to be 16.5 per cent, and the slight reduction of 1.5 per cent from the 1970 figure could be due to a more conservative interpretation of "average fine summer Sundays".

A further River Recreation Demand Study, similar to the 1975 study, was undertaken by McMaster over the summer of 1979/80 to provide a sound five-year period of recreation data. The data collection methods were essentially the same but the survey was extended to cover new recreation areas which had become available since 1975, and the period of observations was longer than had been possible on the earlier survey. The 1980 records showed a total daily count of 40,000 people on fine summer Sundays, with the participation rate remaining at 16.5 per cent.

The two urban lakes, Burley Griffin and Ginninderra, attracted forty percent of use, recreation areas on the Murrumbidgee River attracted 41 per cent, and the balance (19 per cent) was distributed over developed sections of the Molonglo River, Paddy's River and lesser sites.

A large proportion of this participation is associated with swimming and water play activities. The peak Sunday participation rate (excluding municipal swimming pools) was 5.3 per cent in 1974/75 and is thought to have increased since then following upgrading of swimming areas at Weston Park and Black Mountain Peninsula and the establishment of swimming beaches at Lake Ginninderra. On the other hand, growth in construction in backyard pools seems likely to lead to a reduction in observed swimming participation in the longer term. Numbers at public swimming pools have been relatively static in recent years.



N.C.D.C.

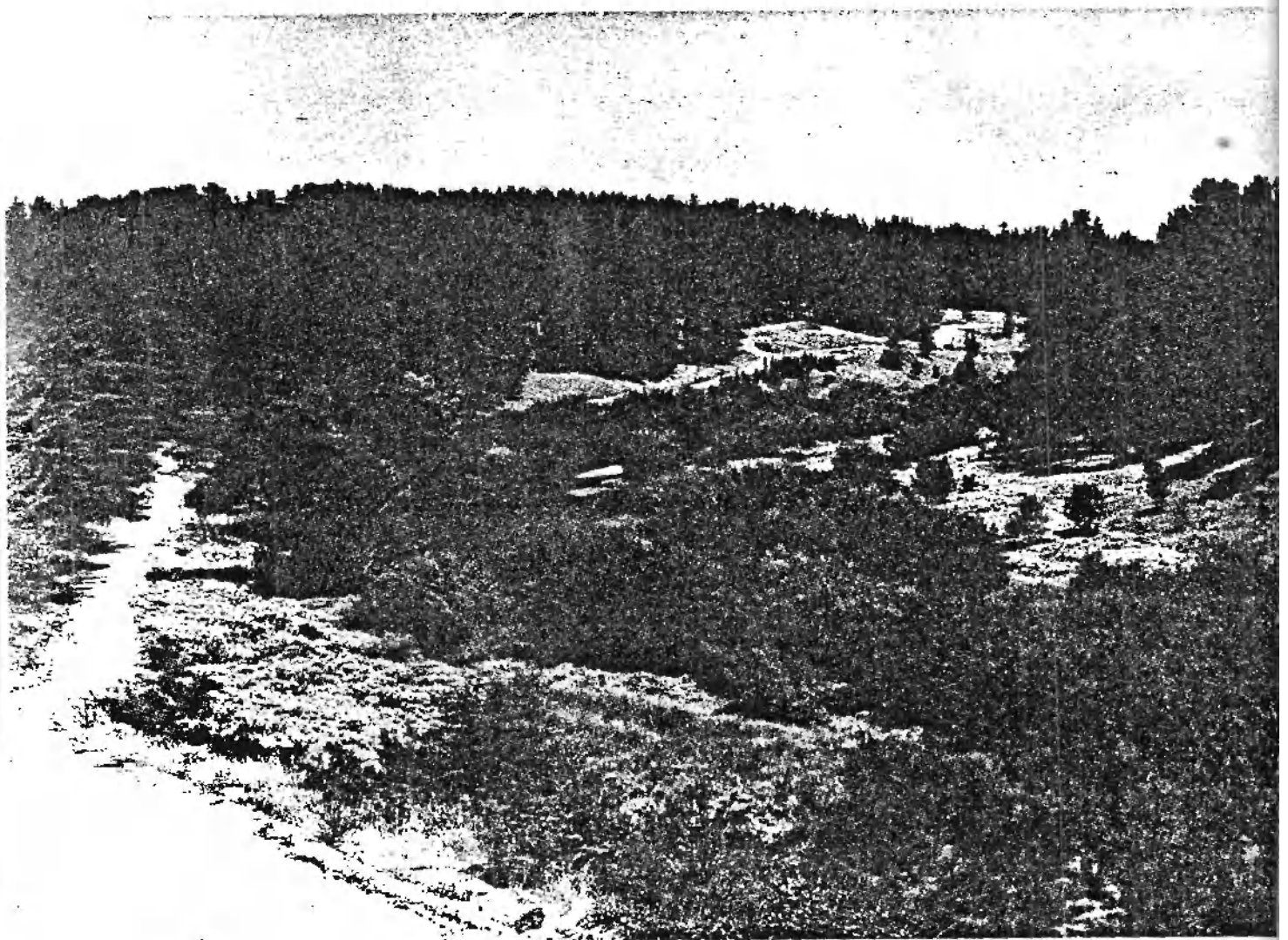
Commonwealth Gardens is intensively  
used both for informal recreation  
and Sunday in the Park activities.

TABLE 2

DEMAND FOR OUTDOOR RECREATION ACTIVITIES IN CANBERRA  
 - percentages of the population in the principal outdoor  
 activities during a typical Sunday.

<u>SUMMER</u>	<u>%OF POPULATION</u>	<u>SOURCE</u>
Pleasure driving	10%	McMaster 1980
River swimming and water play in lakes and rivers	5%	McMaster 1975
City swimming pools	6%	DCT records
Picnicking, barbecuing	8%	McMaster 1980
Lake boating	1%	Estimate
Bowls, tennis, golf	3%	Clubs
Cricket and spectator sports	1%	Estimate
Sunday in the Park	5%	DCT Estimates
Equestrian activities, bushwalking, scouting, etc	2%	Clubs and McMaster 1975
At the South Coast and other areas in NSW	3%	Estimate from traffic counts
<u>WINTER</u>		
Pleasure driving	9%	Estimate from traffic counts
Picnicking, barbecuing	3%	Boden study 1970
Bowls, tennis, golf, netball	3%	Clubs
Football and spectator sports, incl. motor racing	7%	Clubs and counts
Equestrian activities, bushwalking, scouting, etc	2%	Clubs and McMaster 1975
At snowfields and other areas in NSW	2%	Cooma Visitor Centre and NSW National Parks and Wildlife Service.





Pieter Arriens

The extensive pine plantations along  
the Molonglo River downstream of  
Scrivener Dam to Coppins Crossing.

The major increases in use of river and lakeside areas since 1975 have occurred at Lake Burley Griffin, Lake Ginninderra, Uriarra Crossing East and other picnic areas close to urban development. (See Figure 16). Some of the more remote recreation areas (e.g. Gibraltar Falls, Woods Reserve, Corin Dam picnic area, Flints Crossing and Tanners Flat) have experienced reductions in use, suggesting a preference by people for closer sites with the same type of facilities, possibly reflecting a reaction to rising car travel costs.

Overcrowding occurs at most of the major river recreation areas on peak days, but even on peak days there is capacity available at other less popular sites. Some redistribution of demand would alleviate crowding and congestion on these days; on more typical summer Sundays any crowding is usually localised.

Based on the apparently stable daily participation rates and the Commission's June 1980 population projections, it is predicted that daily visitation to lakes and rivers in 1990 will be 50,000.

#### 4.1.2 Pine Plantations

Pine plantations offer a special environment suited to some activities, and forests near urban areas are a well used recreation resource. Stromlo Forest, for example, is heavily used for horse-riding, orienteering and educational excursions, in addition to its use for picnics and barbecues.

Estimates of recreation activity in ACT forests are made by officers of the Forests Section of DTLG. An examination of the estimates for 1979 and for 1974/75 show a steady increase in use of forests for picnics and barbecues, to 87000 in 1979. Use of forests for pleasure driving and to watch car rallies increased markedly from 1975.

#### 4.1.3 Nature Reserves

Visitation to Tidbinbilla Reserve is seasonal in character, and tends to peak in Autumn and Spring. In one sense it probably complements the river swimming areas, which have greatest attraction in summer, when it is sometimes too hot for comfort at the Reserve. The annual use figures are as follows:

##### YEAR FIGURES TABLE

Gudgenby Nature Reserve attracts relatively low levels of use for bushwalking, horseriding, orienteering, rockclimbing, bush camping and related activities. Black Mountain Reserve, by virtue of its central location is very popular for walking, jogging and sightseeing, while Molonglo Gorge Reserve is used largely for picknicking and walking.

#### 4.1.4 Snowfield

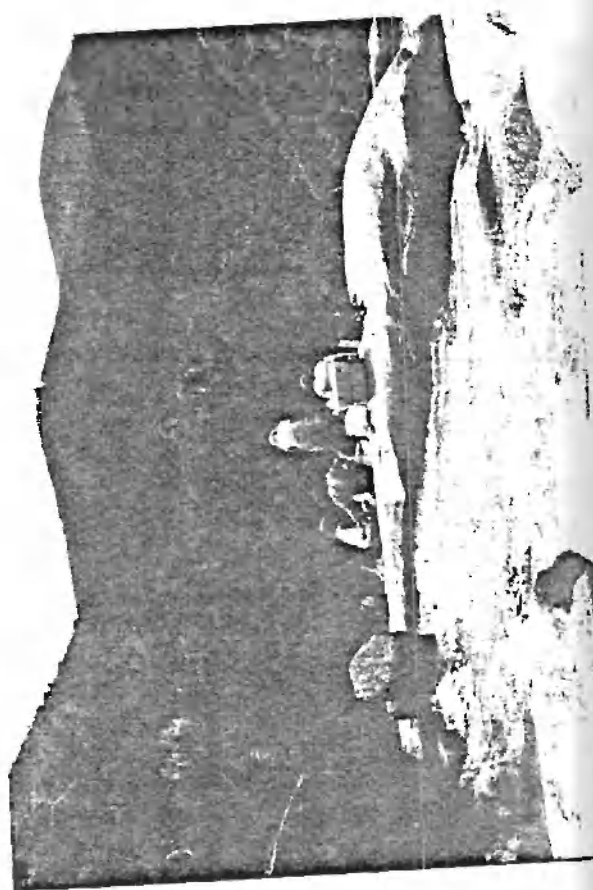
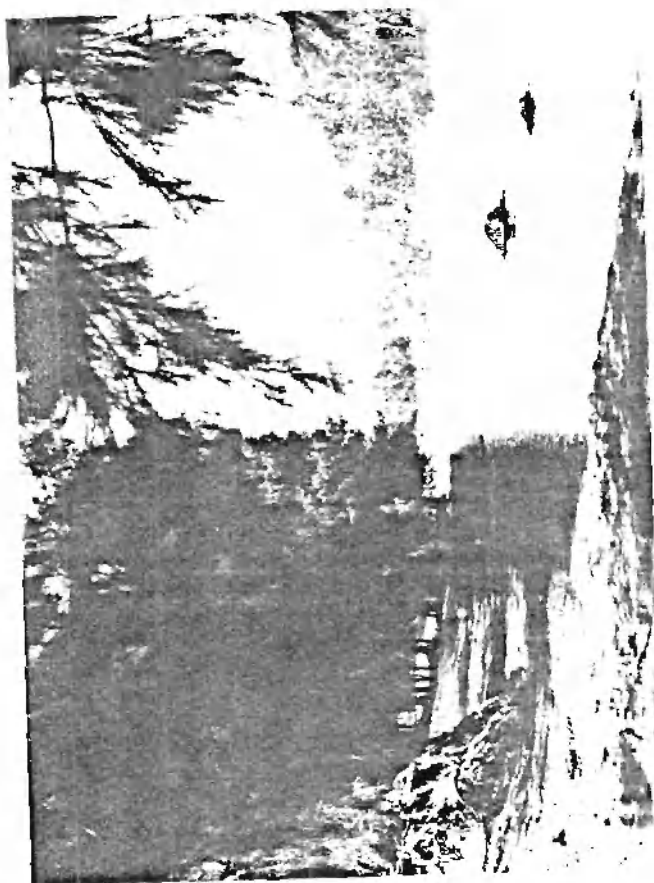
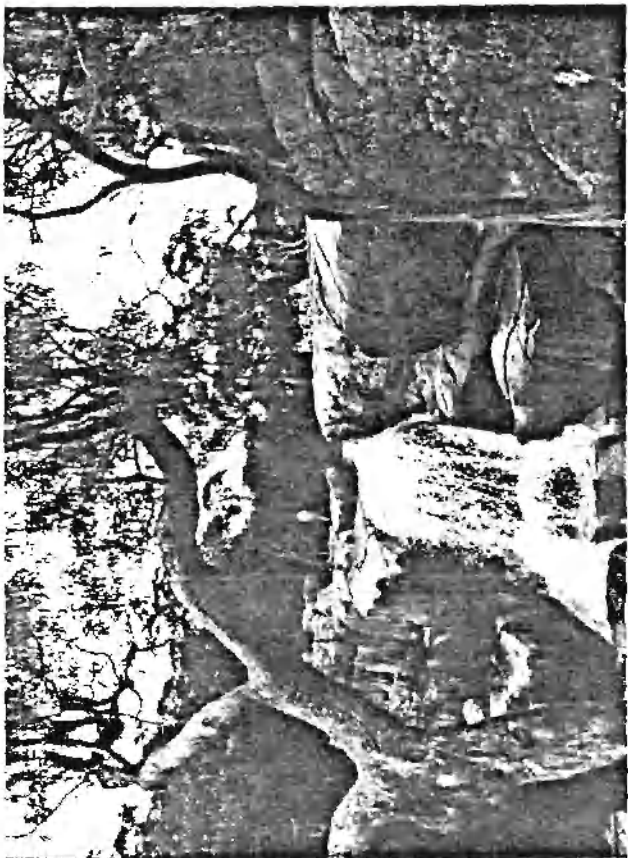
The numbers of people visiting the Brindabellas to find snow grew to 15000 visits per year in winter 1979. This activity is very dependent on the quality of road surface provided, and since the sealing of the lower part of the Brindabella Road, visits on winter weekends have reached a point where congestion of the road at the snow-line is severe.

A small day skiing area on the Corin Dam Road based on artificial snow making commenced operation in 1983.

#### 4.2 Tourism and Overnight Accommodation

The tourist component of use of the National Capital Open Space System was investigated by Wood in his 1977 report Tourist Use of National Capital Open Space System. Of the recreation areas studied by Wood, it was observed that 39 per cent of all visits were made by tourists from outside the Canberra/Queanbeyan area. Wood's observations were mainly in January, when there is a large influx of visitors to Canberra and when many Canberra residents leave for the South Coast and other distant resorts.





Almost all tourists visiting recreation areas do so by car, either using their own car or the car of their ACT relative or friend. The 1977 study recorded that 20 per cent of all people travelling in ACT cars are tourists, and 43 per cent of all people travelling in interstate cars are ACT residents.

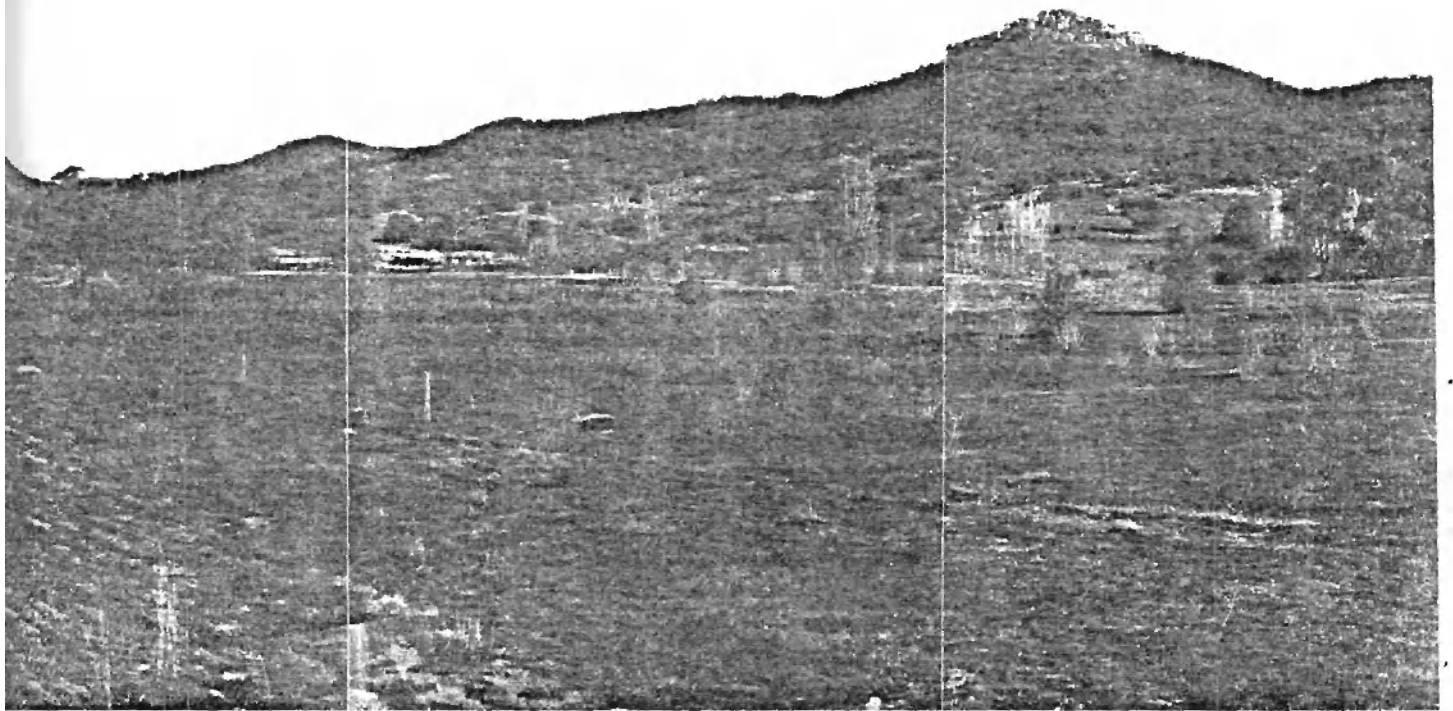
It also showed that ACT residents prefer to take their tourist friends to the mountaintop lookouts or the Cotter. These main tourist destinations accounted for 75 per cent of the estimated weekly demand created by tourists who want to visit the National Capital Open Space System.

Although the average daily tourist use on weekends is 60 per cent greater than the average weekday use, total tourist use during the week is larger than total tourist weekend use. Provision of weekday facilities and attractions for tourists would thus be a good way to further encourage off-peak visits and to help to spread the peak weekend load.

The rural circuit drive from Cotter to Tidbinbilla and to Tharwa has proven an important attraction for tourists. Wood reported in 1977 that each week in January 2,600 people completed the circuit drive, and 42 per cent of these were tourists.

Wood also recorded that 57 per cent of vehicles completing the circuit do so in an anticlockwise direction. People tend to be attracted to the Cotter Reserve and associated developments, and once there they are enticed to travel further to Tidbinbilla and Tharwa. The completion of sealing of this circuit and the recent sign-posting and promotion of the tourist loop can be expected to increase the appeal of the drive.

In the far south of the ACT the Boboyan Road through Gudgenby Nature Reserve carries traffic between Tharwa and Adaminaby with average daily flow of only 50 vehicles.



Camping areas close to Canberra attract a significant amount of use by tourists who use them as a base to visit the features of the National Capital. Camping areas to the west of the Murrumbidgee River at Cotter confluence and at Orroral Crossing and Mt. Clear in the Gudgenby Nature Reserve tend to be used more as a base to explore the natural areas of NCOSS. These camping areas attract a reasonable level of use, given the long period of winter weather in the ACT which renders camping uncomfortable from about May through to October. Much of this demand is locally based.

The two types of camping areas need different forms of management to match the types of use. The close-in sites are more suited to commercial development, with good quality facilities and an intensively developed setting. The more remote sites are suited to management by DTLG, since users are generally more aware of open space values, and the level of use is comparatively low.

While there is currently no provision for commercial holiday camps, guest houses or farm holiday developments in the National Capital Open Space System or associated areas, it is likely that the demand for such facilities exists.

#### 4.3 Interpretation and Education

For the National Capital Open Space System to offer the community the full benefits accruing from its role in conservation of the natural and cultural resources of the ACT, it is necessary to respond to the growing interest from the public in learning more about these resources. Part of the visitation to Tidbinbilla Nature Reserve is motivated by such interest, and the twilight interpretative tours operated by DTLG have proved very popular since their introduction several years ago. Nature walks are also conducted on some of the hills close to Canberra, and there is a significant demand for interpretative pamphlets and publications produced by DTLG and other organisations.

Birrigai Camp at Tidbinbilla has attracted a healthy and increasing level of use since its opening, which testifies to the demand for this form of accommodation for educational purposes, recreation and nature study. The breakdown for use of Birrigai since 1980 is below, expressed as numbers of user nights.

#### TABLE

The community user groups include boy scouts and cub type groups 31 per cent, and religious groups 41 per cent, with lesser numbers from music groups and other student groups.

The potential for use of NCOSS by these groups has been enhanced by the location of Birrigai and the nearby development of visitor facilities at Tidbinbilla Nature Reserve. In a similar manner the potential of major resources such as Gudgenby Reserve can be exploited by careful development of facilities designed to serve specific user interests.

#### 4.4 Cultural Heritage and Historic Sites

The open space system contains sites and relics of Aboriginal and early European occupation, particularly in the area adjacent to the river corridors. A recent archaeological survey carried out for the NCDC revealed 173 sites in the 60 km section of the Murrumbidgee River Corridor from Angle Crossing to the northern border of the ACT. A major archaeological discovery in a cave near Birrigai has brought Aboriginal occupation of the area back to 15,000 BC, an advance of 10,000 years on previous estimates and undoubtedly other sites are yet to be revealed in the hills and valleys of the system.

For the present these sites are generally unknown to the public but in time some controlled access and interpretation of them may be required.

Interest in the European history of the Canberra region is also increasing as evidenced by visitors to the Lanyon Homestead property currently estimated at about 70,000 a year. Lanyon and the Lambrigg Homestead on the west bank of the Murrumbidgee downstream from Lanyon is also an important historic site containing William Farrer's laboratory, experimental wheatfield and his grave on a knoll behind the homestead which has been declared a national monument.



These and other historic sites may well become the basis of a heritage circuit for residents and visitors to the National Capital.

#### 4.5 Urban Growth

Canberra's urban growth patterns have a major bearing on where future pressures for use of and access to the National Capital Open Space System are likely to intensify.

The Commission's proposals for the future growth of Canberra include further land development in Tuggeranong within the catchment of Tuggeranong Creek and Stranger Creek, followed by the development of Gungahlin. This would initially increase the population close to the Murrumbidgee River in Tuggeranong, but the next phase of settlement would occur in land remote from most areas of the National Capital Open Space System with the exception of the Gungahlin Hills. The settlement of Gungahlin would be likely to place additional pressure on NCOSS in Inner Canberra and Belconnen, particularly Lake Burley Griffin and Lake Ginninderra. Urban growth in the above areas would accommodate Canberra's population to a level of about [400,000], or based on current population projection, to approximately year 2000.

The longer term patterns and rates of growth are less certain, but the options for future urban development include associated rural landscape areas in the lower Molonglo Valley. Development in these areas could impact on areas of the National Capital Open Space System in terms of increased recreation pressures, changes to the landscape and effects on water quality.

When Canberra's population grows beyond 400,000 it will become necessary to augment the City's water supply. This is proposed through either the construction of the Tennent Reservoir in the lower Gudgenby and Naas valleys or further development in Cotter Catchment. The Tennent reservoir could become a recreation resource in its own right, similar to Googong Reservoir, with its catchment largely within the Gudgenby Nature Reserve.



The continuing growth of the city will also lead to the ongoing need for additional arterial roads, powerlines, pipelines, telecommunication facilities and other services, some of which will need to be located within areas of the National Capital Open Space System. While the impacts of some of these developments may be regarded as severe, such development is not inconsistent with the concept of NCOSS and associated rural landscape areas.

Against the adverse impacts of future city growth, the expansion of urban development will improve access to other NCOSS areas (e.g. hills in Tuggeranong and Gungahlin) and facilitate the regeneration of vegetation on these hills as grazing pressures are reduced.

#### 4.6 Transportation

The majority of recreational trips to all NCOSS areas are made on the urban road system which has adequate capacity to cater for recreational traffic because of the design of these roads for commuter and business traffic. The non-urban roads, however, are much more lightly trafficked during the business week, especially by commuters. This existing non-urban road system serves the two complementary recreational demands of providing:

- (a) access to resorts either within or adjacent to the ACT for those trips which may be described as predominantly "destination oriented", and
- (b) a limited number of round trip loops or alternative routes for those trips which are primarily "journey based" in which the drive itself is the main purpose of the outing and the main source of pleasure is gained from viewing the countryside in the vehicle.

Recreational travel is an integral part of all recreation activities outside of the immediate home and neighbourhood area and it assumes greater significance in longer trips to the National Capital Open Space System within or outside the Canberra metropolitan area. Participation in recreational travel is not only a direct consequence of recreation activities, such as organised sport and informal outdoor recreation, but is also a form of recreation in itself as evidenced by the number of people known to have no significant stops on their recreational trips. It has been observed that pleasure driving is one of

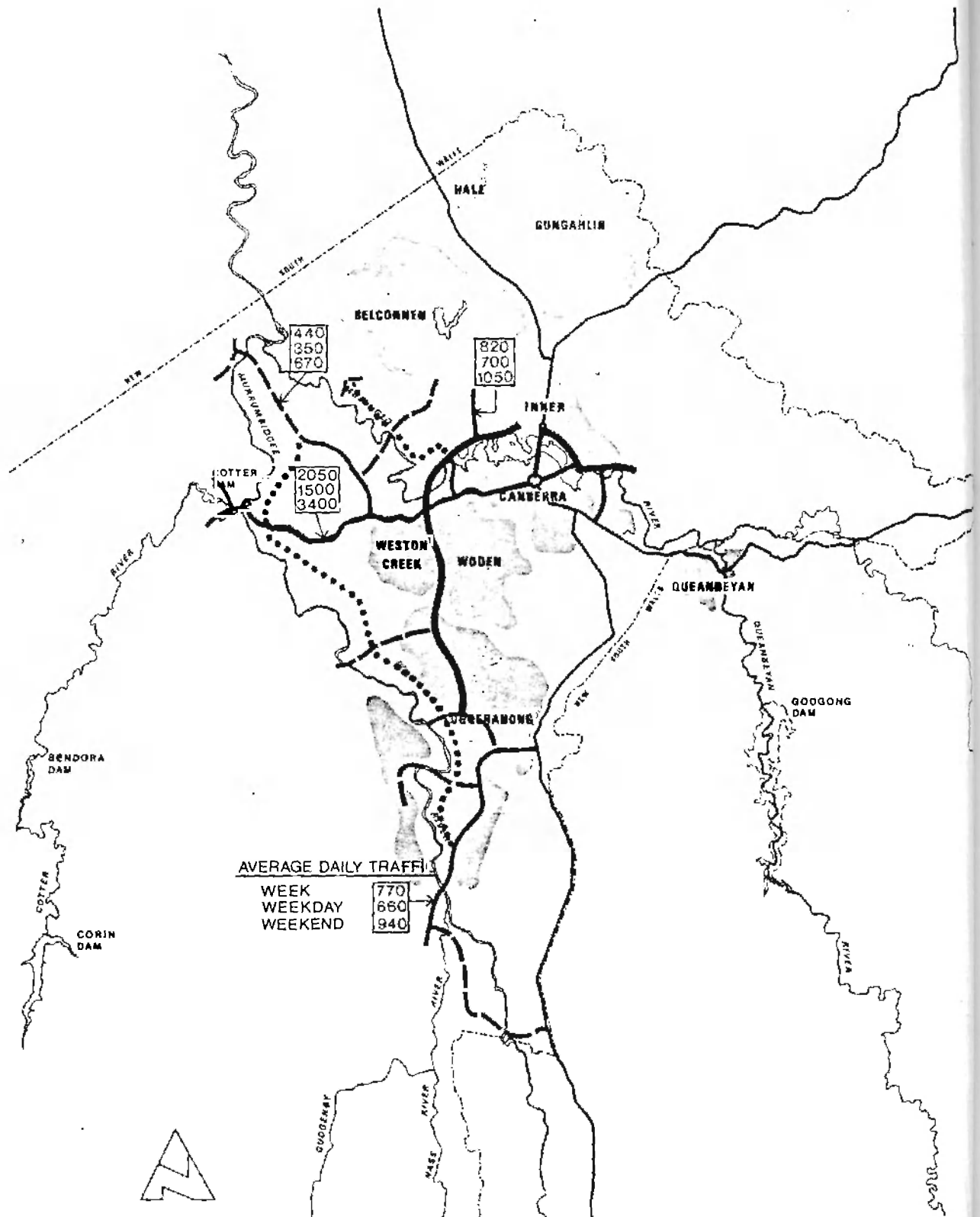


the most common recreational activities enjoyed by a large proportion of all urban populations seeking outdoor experiences and that people in the ACT are no exception.

Evidence from the Short Term Transportation Plan (NCDC, 1975) indicates that on a summer Sunday, some 50,000 person trips were recreation-orientated which suggests one-quarter of the total population was participating in such trips. Of this sample, about 45 per cent of the recreational trips were made to National Capital Open Space System areas, with 48.5 per cent of all trips to other metropolitan locations (visiting friends, sporting events, local playgrounds etc), 5 per cent went to NSW coastal areas and lesser proportions to other NSW locations. Within the 45 per cent of all recreational trips which were made to the NCOS areas it has been estimated that approximately 13,400 pleasure trips were made each summer weekend in 1975 to ACT rural areas. With car occupancy rates averaging 3.5 persons per car this represents a very significant number of people seeking outdoor recreational experiences in the surrounding countryside, such that there is a need to plan and cater for their travel characteristics in a similar way to their demand for picnic sites, riverside and off-river recreation areas.

Total recreational travel can be related to factors of population, income, mobility, education, retirement and the free time of adults. In most of these characteristics the ACT is generally above the national average thus producing a high participation rate in recreational activities which, combined with Canberra's location as an inland city, produces a heavy demand for the provision of recreational facilities and access roads and trails serving them.

Of all the factors contributing to the past growth in outdoor recreation, the mobility provided by the motor car has had greatest influence on the type and location of outdoor recreational opportunities. Its flexibility with respect to location, routes, times, season and weather, single family or group participation, and its comparatively cheap cost and energy efficiency as a vehicle for family outings have resulted in the vast majority of all recreational trips in the ACT being made by private cars. The essential role of the motor car in getting tourists and residents to



- PARKWAY AND URBAN ARTERIAL
- RIVER ACCESS ROAD (SEALED)
- - - RIVER ACCESS ROAD (UNSEALED)
- ..... POSSIBLE FUTURE PARK DRIVE

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Kilometres

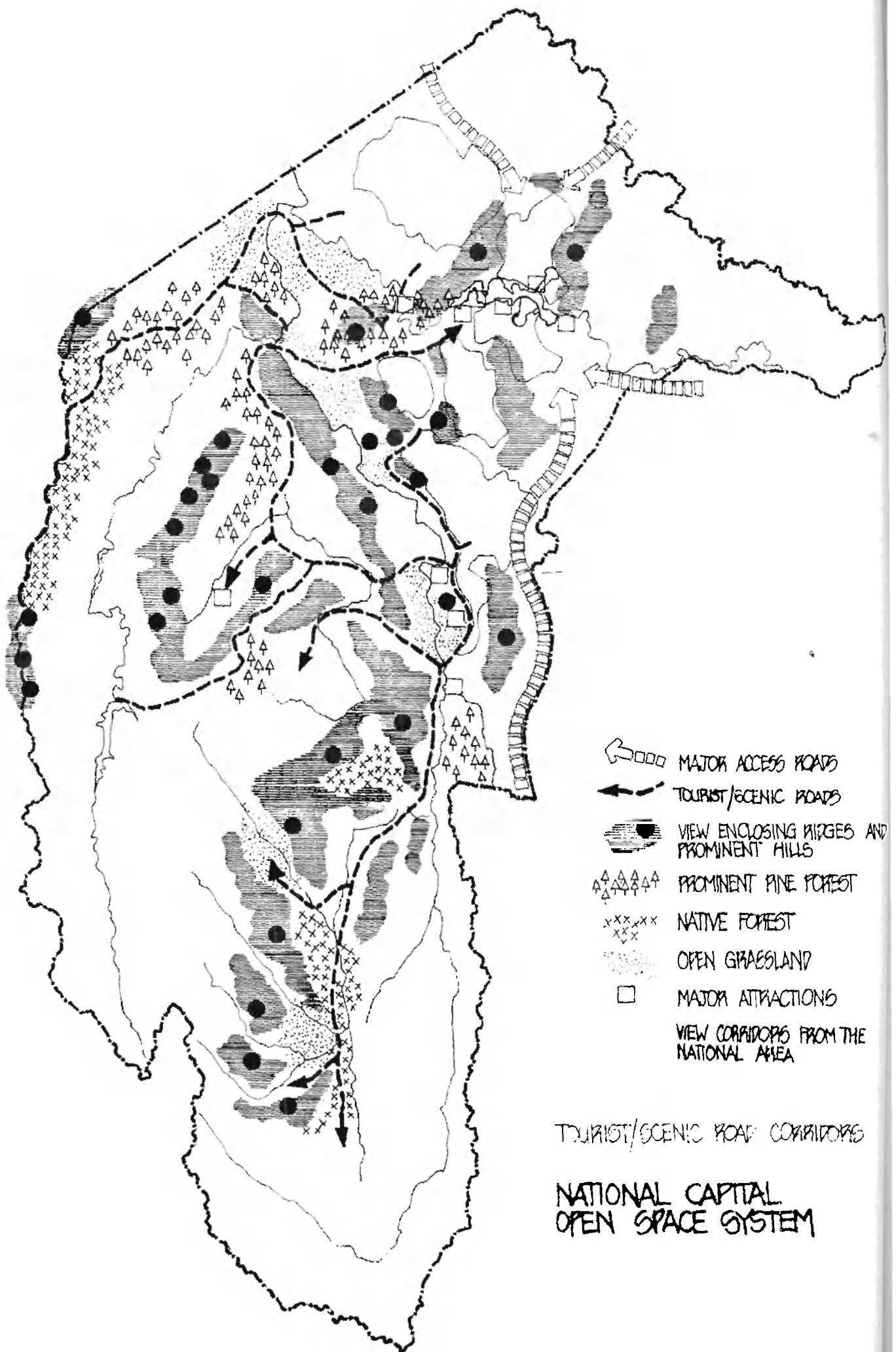
## PRINCIPAL ACCESS ROUTES FOR RIVER CORRIDOR









the open space resorts is highlighted by surveys during 1975 and 1977 in which it was established that:

- . 89.5 per cent of tourists used cars to visit all features in the ACT, 8.6 per cent used tourist coaches, and 1.3 per cent walked. These features included the central area attractions, Civic, the War Memorial and Parliament House.
- . 99 per cent of tourists surveyed at Uriarra Crossing, Casuarina Sands, Murray's corner, Cuppacumbalong, Point Hut, Pine Island and Kambah Pool visited these locations by car. None of these resorts was serviced by coaches.
- . 52 per cent of tourists viewed features from their cars without leaving them.

Despite the popularity of the private car, there may be increased scope in the future for public transport services to popular recreation areas, including an increase in the level of service in summer provided by ACTION bus service to Cotter. Also as the city expands closer to NCOS areas and accessibility is improved in other ways, the extent of bicycle or pedestrian access to some areas can be expected to increase.

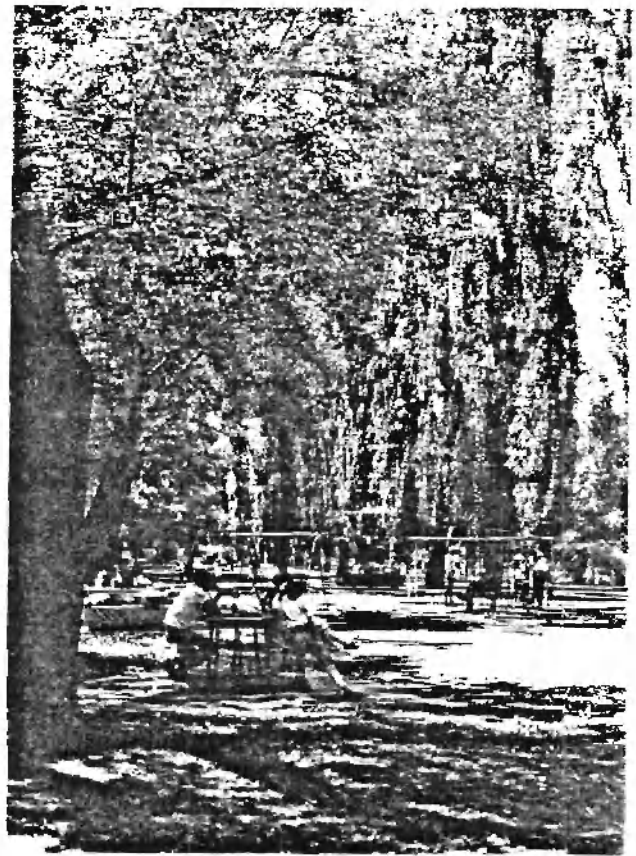
The rapid growth in demand for recreational facilities in the past by motorists and the anticipated continuation of this trend calls for close monitoring of the situation to ensure adequate provision and control of access and parking to existing and new sites.



-  MAJOR ACCESS ROADS
-  TOURIST/SCENIC ROADS
-  VIEW ENCLOSING RIDGES AND PROMINENT HILLS
-  PROMINENT PINE FOREST
-  NATIVE FOREST
-  OPEN GRAESLAND
-  MAJOR ATTRACTIONS
-  VIEW CORRIDORS FROM THE NATIONAL AREA

TOURIST/SCENIC ROAD CORRIDORS

NATIONAL CAPITAL  
OPEN SPACE SYSTEM

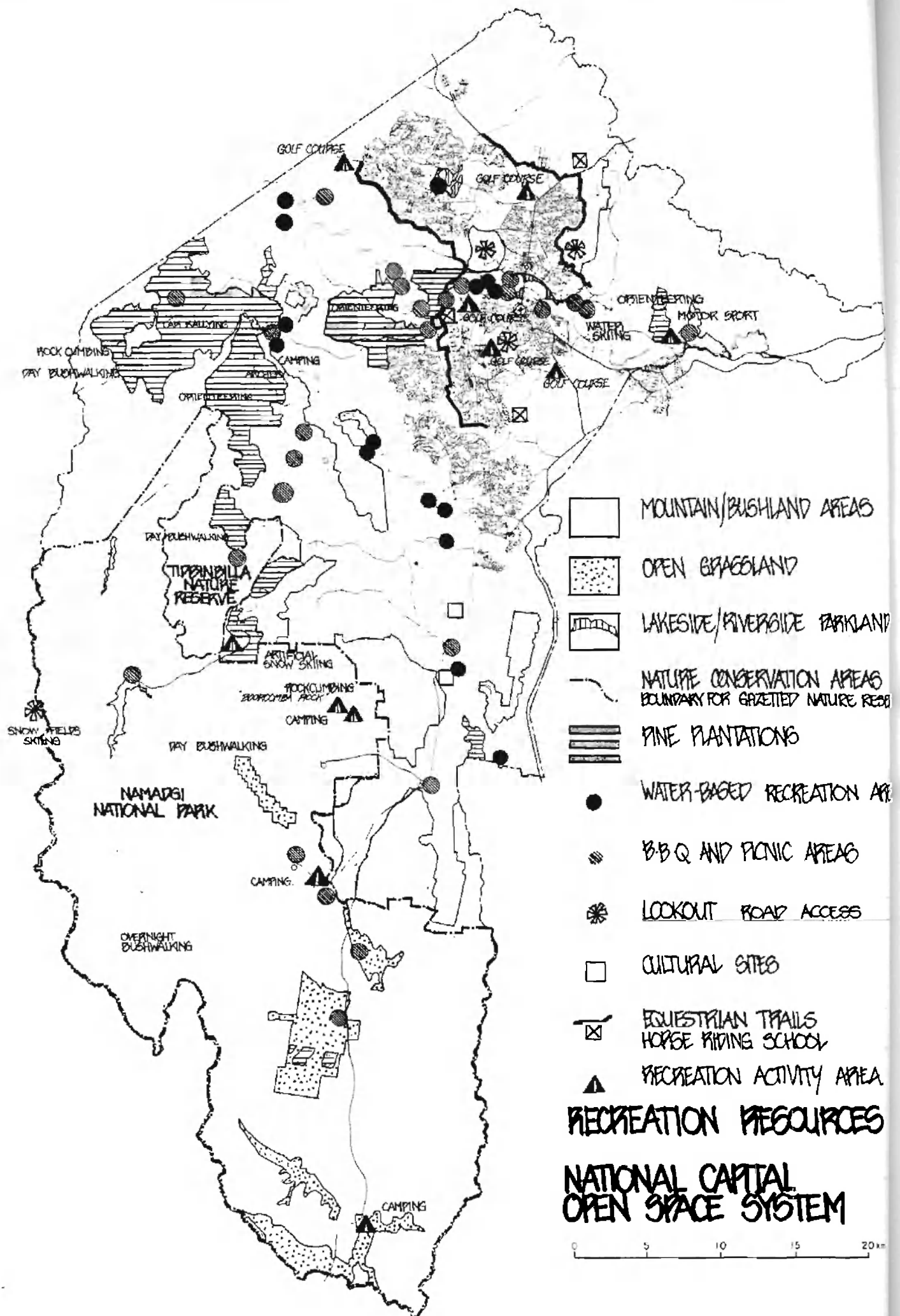




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## Chapter 5

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## 5.0 PLANNING OBJECTIVES AND ISSUES

### 5.1 The Planning Approach

It is emphasised that the National Capital Open Space System is not intended to be developed or managed purely as a traditional public open space or parkland. Rather, it is a multiple-use area with different parts of the system having different planning and management policies, reflecting the characteristics of the land, but with the respective policies being reconciled to retain the integrity of the system as a whole. The NCDC is committed to developing the NCOSS on this basis. It is important also that the NCOSS is managed as a total system with an effective nexus between planning, development and management.

At the broad planning level discussed in this report, the objectives for the whole system are established and their implications are discussed. This discussion provides the basis for a set of general policies covering the area as a whole which form the first part of the Draft Policy Plan. These policies and the supporting discussion provide the framework for ongoing planning, development and management decisions relating to the National Capital Open Space System.

The Draft Policy Plan delineates river and creek corridors, urban lakes, hill areas, mountain and bushland areas and associated rural areas. On the basis of the physical and environmental characteristics of these components of the system more detailed policies can be formulated for each type of area. These policies must reflect the relationship of those components to the total system, and form the second part of the Draft Policy Plan. The planning and environmental issues relating to each component of the system are also discussed as background to the respective policies.

Because the National Capital Open Space System is a multiple use area, there is potential for conflict between different types of use. A balanced planning approach has been adopted which

recognises such conflicts and aims to achieve a compromise between conservation of the resource on one hand and recreation uses which may have adverse impacts on the resource on the other. The protection of Canberra's landscape setting, which is the basis on which the NCOSS concept evolved, however, has been given first priority. This approach recognises the great diversity of terrain and landscape environments and accepts that some areas are most favoured for either conservation or a recreational use and that according to the environment provision would be made for different levels of access and intensities of use.

## 5.2 Planning Objectives

The National Capital Open Space system has four basic functions in the areas of landscape setting, recreation, conservation and land bank. In satisfying these functions a series of planning and management objectives has been identified as outlined below. The issues raised in seeking to achieve these objectives are also discussed as a basis for formulating policies which will facilitate the achievement of the objectives.

These objectives are intended to apply to the National Capital Open Space as a total integrated system. Most of them relate primarily to the four basic functions and are grouped accordingly, but because of the multiple use nature of NCOSS, these four functions interact and some of the objectives have broader implications, particularly in relation to land use conflicts. In addition, a series of objectives related to management principles for the system has been identified.

The objectives are as follows:

### 5.2.1 Landscape Setting for the National Capital

- . To retain Canberra as a showpiece in the tradition of the Griffin plan.
- . To retain an essentially Australian landscape setting for Canberra, symbolic of its function as National Capital of Australia.
- . To maintain an attractive landscape setting which reinforces Canberra's established urban form.

- . To utilise the landscape surrounding Canberra in maintaining a visible link with Canberra's rural past.
- . To ensure as far as practicable that buildings, structures and other engineering works constructed within the National Capital Open Space System blend with and do not intrude on the surrounding landscape.
- . To achieve a sympathetic appearance of pine plantations within the landscape, having regard to the topography and other landscape elements.
- . To conserve a representative range of the Territory's landscape types, including those modified by past land uses.

#### 5.2.2 Recreation and Access

- . To satisfy the recreation needs of Canberra's residents and visitors through provision of a balanced range of facilities and opportunities which complement those available outside the National Capital Open Space System.
- . To protect the recreation resource from degradation as a result of excess or inappropriate use.
- . To minimise the conflicts between different types of recreation activities and between recreation and other land uses.
- . To provide good visual access into the National Capital Open Space System.
- . To provide adequate physical access to the National Capital Open Space System by public and private transport.
- . To facilitate movement to and within the National Capital Open Space System for pedestrians, equestrians and cyclists.

#### 5.2.3 Conservation

- . To conserve a representative range of ecological communities and as many as possible native plant and animal species.

- . To conserve a representative selection of the cultural heritage of the ACT.
- . To protect sites of special ecological, geological, historical, cultural or architectural significance.
- . To provide for public education and appreciation of the natural and cultural resources of the ACT.
- . To provide the best achievable protection of terrestrial and aquatic ecosystems within and related to the National Capital Open Space System.

#### 5.2.4 Land Bank

- . To meet the future needs for appropriate Commonwealth and tourist-related areas associated with the National Capital.
- . To satisfy the land bank needs with the least practicable impact on the landscape and natural and cultural resource values of the National Capital Open Space System.
- . To provide a balance between the provision for recreation and other land uses in those parts of the system where multiple uses occur.

#### 5.2.5 Management

- . To ensure that the rate of development of the National Capital Open Space System is consistent with its available management resources and its efficient use by the community.  
  
To ensure that financial and physical management resources are used as effectively as possible having regard to assistance from natural ecological processes.
- . To ensure that the available resources within the community are put to optimum use within the planning and management framework for the system.

- . To ensure that the management of different parts of the system is undertaken in the context of the total system and integrated with the management of other areas that are physically or functionally interrelated.

### 5.3 Planning Issues - General

#### 5.3.1 Landscape Setting for the National Capital

The functions of the National Capital Open Space System in making Canberra a showpiece are inherent in the Griffin plan and were emphasised by Seddon in his 1977 review of the open space system. The necessary elements to achieve these functions - Lake Burley Griffin, the surrounding hills, the distant mountains - are there; the future need is to ensure that they retain these functions. In particular the crestline and wooded slopes of Black Mountain, Ainslie-Majura and Red Hill must be preserved from any development which might detract from their role as key elements in the Griffin Plan.

It is important also for this landscape to be characteristically Australian, symbolic of Canberra's function as the National Capital. While the landscape character of the city itself is "international" rather than local, the Australian landscape dominates on a broader scale on the surrounding hills. Exotic planting may be employed to fulfil limited and specific functions within the National Capital Open Space System, but should not be allowed to dominate the landscape. The visual impacts of the extensive pine plantations around Canberra can be modified, as discussed below, so that they are limited to being a diverse element within a predominantly Australian landscape.

Around the edges of the towns of Canberra, the hills, ridges and rural areas that interface sharply with the urban development must be maintained as landscape buffer zones between the towns and as a rural background. Some of the rural lands further out are important in providing the foreground to the landscape dominated by the mountains of the open space system. A feature of these rural landscapes is the open savannah woodland, modified by the early settlers, which



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Pine plantations such as Stromlo have an important landscape and recreation function in addition to their use for timber production.

form a visible link with the Territory's rural past. This link with the past will be reinforced by the retention of the buildings, structures and other traditional features within this landscape.

The multiple use of Canberra's open space results in its use for locating roads, powerlines, reservoirs and other engineering structures. Its use for such a purpose partly justifies the exclusion of lower slopes from housing development, and avoids the more severe environmental impacts of locating certain services within urban areas. The design and siting of such facilities, however, should be undertaken with a view to minimising their intrusion on the landscape as far as practicable.

Much can be done to minimise the intrusive effects of pine plantations on the landscape. Pine plantations can be clearly visible and even dominant without appearing intrusive. Problems arise, for example, when the plantation boundaries cut across the grain of the terrain, or where the treetops from an otherwise concealed plantation intrude into a landscape of native forest.

On the broader scale, the National Capital Open Space System contains a wide diversity of landscape types, including open grassland and forest. While some areas will justify planting or encouragement of natural regeneration to a higher tree density, the quality of the total landscape will depend on a representative range of these landscape types being maintained.

One of the greatest challenges in maintaining this landscape diversity will be the preservation of the open savannah woodland that dominates the associated rural landscape areas. This woodland is not in a strong condition but is undergoing a gradual decline in tree health ("dieback") as has been demonstrated in several recent studies. This problem is not confined to the ACT and in recent years has become a matter of national concern.

In some NCOSS areas the forest and woodland is being restored through natural regeneration which has been taking place over several years, following the cessation of intensive grazing. In other areas, continuing grazing, lack of adequate seedbearing trees or competition from improved pasture have been factors which have restricted the extent of natural regeneration.

The control of land use and the active restoration of natural vegetation will have high priority in many NCOSS and associated rural areas in coming years. The task of establishing a scatter of young trees to replace the aging eucalypts in a landscape which is still under active rural use will be a formidable challenge.

### 5.3.2 Recreation and Access

People differ widely in their preference for outdoor recreation and the types of environment in which to pursue it. The National Capital Open Space System contains a great variety of recreation resources, differing in terms of their suitability for different types of recreation and their "carrying capacity" in terms of the level of recreation use that can be sustained without degradation of the resource or of the quality of the recreation experience. In planning and managing recreation within the NCOSS, it is imperative that each resource is used and managed as best suited to land in terms of its natural landscape characteristics and carrying capacity. In particular, recreation in natural areas or in ecologically sensitive areas such as steep hills and river gorges must be managed to ensure protection of the natural quality of such areas. In contrast some areas along the Murrumbidgee River have wide beaches surrounded by gently sloping land which can attract and safely accommodate large numbers of people.

Even these areas, however, can suffer from overuse and the total capacity of river corridors is finite. It is therefore proposed in the future to develop high-capacity multi-activity recreation areas away from the river to ease visitor pressures on the river environment. These recreation areas could be located within the associated rural areas.



In general, the provision of recreation facilities will be undertaken with a view to minimising conflicts between activities or with other land uses.

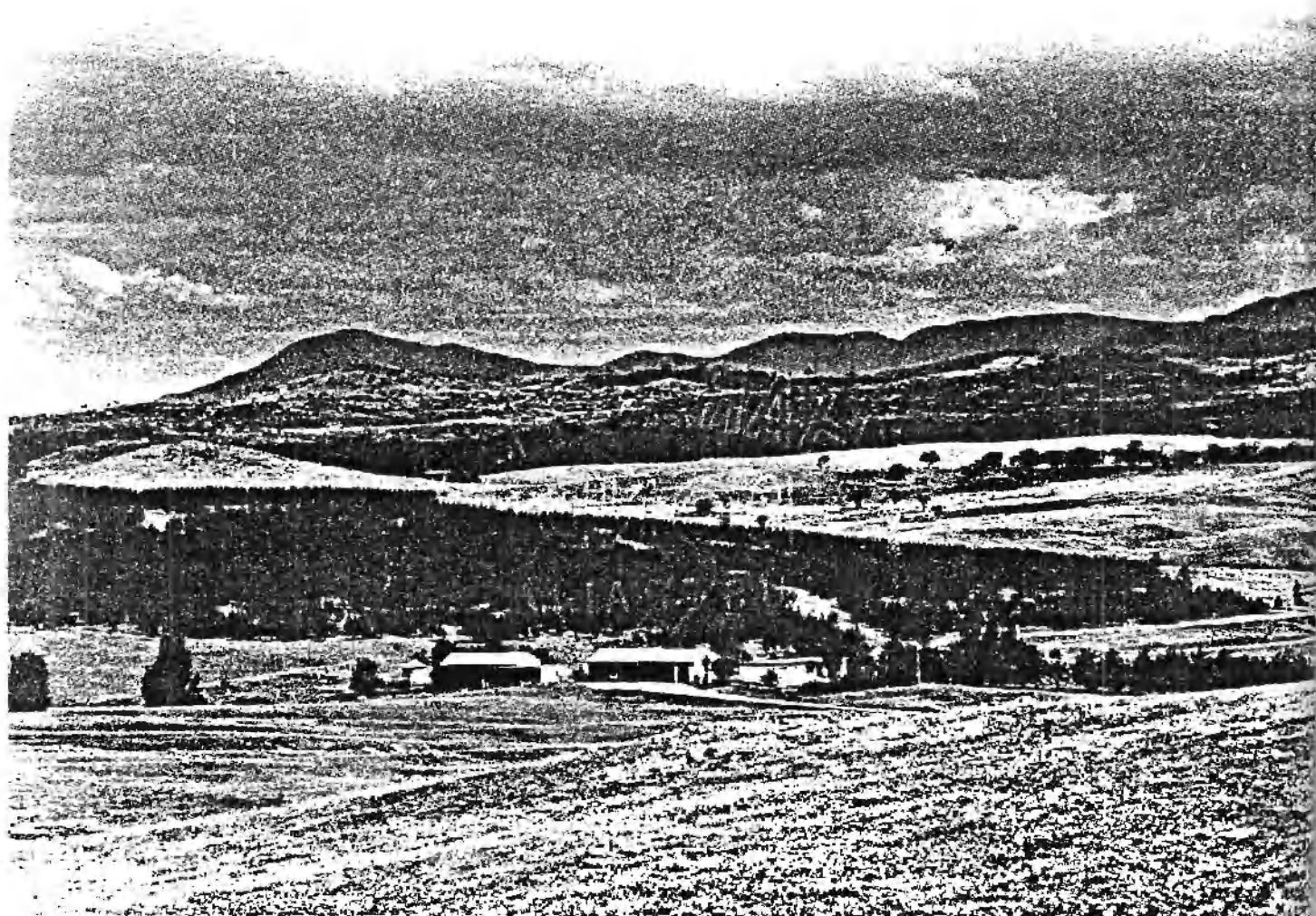
The NCOSS is an enormous resource throughout which different recreational uses can be dispersed, subject to management limitations and compatibility with other land uses such as a water catchment.

There are many recreation facilities which could be provided within the NCOSS to increase its recreation potential for both residents and tourists. These include low cost accommodation and camping areas, tourist developments, kiosks and other facilities to assist people to appreciate the area and enhance their recreational experiences.

Such developments, whether private or government, are consistent with the NCOSS concept but need to be carefully sited to ensure that they do not detract from the landscape, recreational or conservation values of the open space system. It will be necessary also to be selective in determining which developments are of sufficient benefit in enhancing the objectives of the National Capital Open Space System to justify a site within or associated with NCOSS, as opposed to being located elsewhere within the ACT.

For people to make effective use of the National Capital Open Space System they must have good access to it in both a visual and a physical sense.

Good visual access means that people be encouraged to see the important landscapes that the NCOSS is intended to preserve. For example, visual access to the National Area and Griffin's Canberra would be improved by increasing viewpoints and opportunities for pedestrian experience of the axes at ground level and for easier public participation in the National and ceremonial life of Canberra by creating areas that stimulate urban events and encourage mixing. Elsewhere it is necessary for people to be drawn to those parts of



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The countryside is easily accessible  
from the urban areas.

the National Capital Open Space System from which they can see enough of the system to appreciate its scope and character without necessarily having to set foot on the land they are viewing.

Good physical access, on the other hand, is necessary to enjoy the recreational benefits that the system offers. The nature of access will vary widely in accordance with the nature of the terrain and the recreation needs to be satisfied.

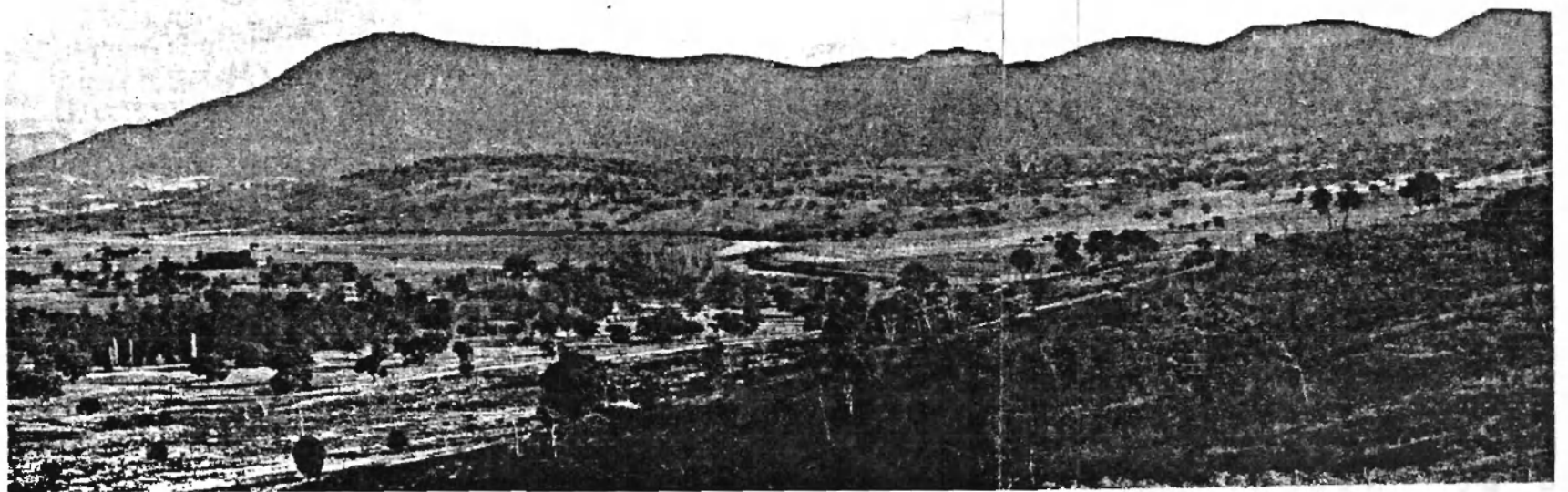
Much of the National Capital Open Space System, particularly the closer hill areas, the urban lakes and Ginninderra Creek are immediately accessible from residential areas which adjoin them, and can be reached at several points by other Canberra residents or visitors travelling by car, cycle or public transport.

In contrast, the river corridors are more remote from the city, accessible by car at relatively few points, and generally not served by public transport. Access into the mountain and bushland areas is even more difficult despite the presence of good roads to several points within them, but much of the attraction of these areas lies in their remoteness.

Road access into and through convenient parts of the open space will be provided through a network of scenic park drives, and the development of tourist circuits linking places of interest. In addition to providing for private cars, the use of public transport for access to the open space and recreation areas will be facilitated.

Other forms of access into the open space will also play a major part in its future use.

The development of a trail system could be beneficial in reducing visitor pressure through indiscriminant trampling of sensitive areas and providing the backbone for future interpretative facilities. A National Capital Trails System within the NCOSS would have the effect of unifying the open space system in a physical sense, just as the landscapes from the city and other locations unify it in a visual sense.



C 11/21

C 11/22

The historic Lanyon Homestead with its outbuildings,  
cemetery and plantings of exotic trees, within the  
savannah woodland setting of the river flats.

As these trails would concentrate the movements of the majority of visitors, their siting and design should be carefully chosen to avoid sensitive areas, emphasise good views and other features of interest and discourage any tendency to cut corners. Suitable vehicle access points would be required to enable car visitors to reach the starts of the trails. Trails should be located to offer round trips from urban areas or vehicle access points.

### 5.3.3 Conservation

The protection of natural and cultural resources is an important function of the National Capital Open Space System. Given the extent of the area, it is not an unreasonable objective to preserve a representative range of all of the natural vegetation communities occurring in the ACT within the system, and maintain viable populations of most indigenous native plant and animal species.

Likewise the NCOSS together with the associated rural lands also offer the potential for protecting a wide range of features illustrating the Territory's cultural landscapes and dating back well before the period of white settlement.

It is intended that special sites will be established as appropriate to protect and preserve places, features and buildings of significant ecological, geological, archaeological, historic and cultural interest in appropriate settings. Such sites will be planned and managed so that public access may be permitted in such a way as to not conflict with the main purpose of the sites.

It is not enough only to protect and display these sites, however; it is necessary also to provide appropriate opportunities for public appreciation and education.

Provision will therefore be made for nature and historic interpretation centres at suitable locations for public information and education of the public on matters related to the natural and

cultural resources of the National Capital Open Space System, Black Mountain Reserve, Tidbinbilla Nature Reserve and Jerrabomberra Wetlands are examples of areas where public interpretation of the natural environment is or will be given high priority. Places such as Lanyon Historic Site provide parallel opportunities in relation to the cultural heritage.

Other significant sites, however, will not generate the same level of public interest nor be capable of accommodating such high visitor pressures. While these will still be important for ecological or archaeological study, it may be prudent to avoid deliberately drawing public attention to them.

#### 5.3.4 Land Bank

The land bank function of the National Capital Open Space System and associated rural lands includes the satisfying of future needs for recreation and tourist-related developments associated with the open space itself. An example is the development of high-capacity recreation areas within the associated rural land to ease recreation pressures on the river corridors.

In addition there are future land bank needs for National Capital and other Commonwealth purposes which cannot be reliably predicted. Indeed the whole concept of a land bank to provide for unpredictable uses was one reason for acquiring the land for the Australian Capital Territory and keeping a range of areas free from early development. The benefits of this foresight have been proven, for example, in the siting of the Museum of Australia on the shore of Lake Burley Griffin and in the siting of tracking stations and radio communication facilities which require not only land for the facility but also a substantial clearance zone free from interfering land uses. Such facilities can be accommodated within open space and rural areas without unduly intruding on the character of these areas or affecting their primary land uses. They may even enhance the tourist value of the area.

The use of NCOSS and associated rural areas for land bank purposes must be balanced with the other planning objectives for the area. For example, there are some highly visible areas where the erection of prominent buildings or structures could conflict directly with the protection of landscapes which have a key role in the setting of the National Capital. Such areas would be inappropriate for such a land bank use, but could still accommodate other developments which were less intrusive. Other parts of the land bank, where the landform and vegetation could screen any development would be suitable locations for appropriate structures.

### 5.3.5 Management Consideration

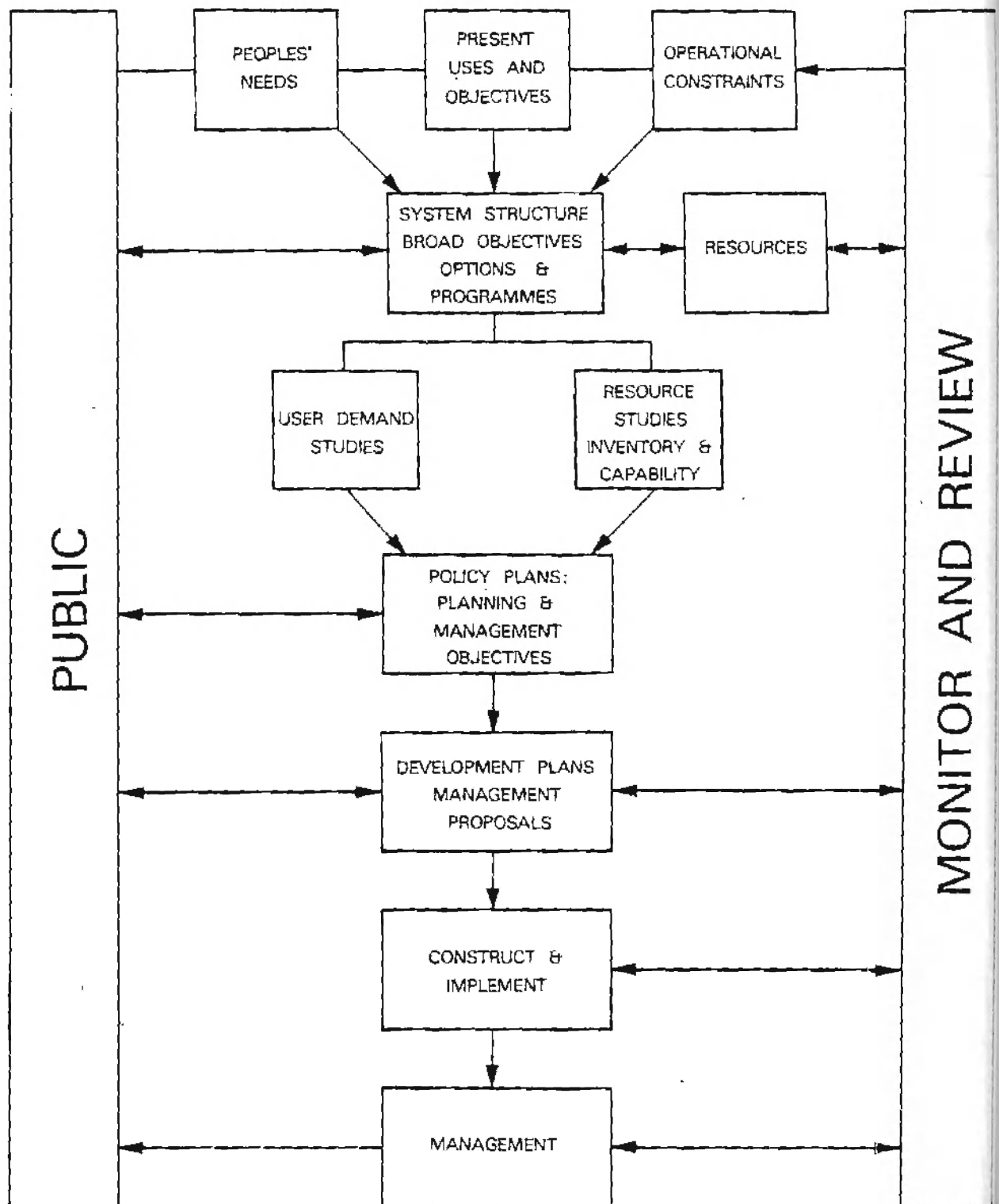
For the National Capital Open Space System to fulfil its objectives, it is necessary for it to be supported by a system of management with appropriate legislative backing and adequate financial and physical management resources. The most efficient use of the physical resource would be achieved by using management practices assisted by natural ecological processes, for example, in promoting tree regeneration. It can also be assisted by integration with rural management (e.g. by permitting agistment grazing in hill areas) and using existing fences and tracks for management purpose, even if they are not ideally located from an NCOSS viewpoint.

Development and management of open spaces in sympathy with natural processes is generally the most cost-responsible approach and should be followed except where there is a need for high intensity use.

Generally, the bigger the area of open space the less the pressure on it and the lower the cost of maintenance per unit area. Conversely, the smaller the area the higher the pressure and the higher the cost of maintenance. In large areas the possibility of preserving a natural landscape quality is good: in small areas it is low.

At present, management unit costs for large, low intensity areas would range from \$75 to \$150 per hectare per year. In high density small areas used for recreation, (i.e. urban parkland) the unit management cost could be as high as \$5,000 per hectare per year.

# PROCESS FOR PLANNING AND MANAGEMENT OF NATIONAL CAPITAL OPEN SPACE SYSTEM





The key management issue arising from the rural sector of the National Capital Open Space System is that of adjudication between recreation use and nature conservation. The 30,000 hectare of NCOSS contain a diversity of environments, and although these are opportunities both to conserve the major ecosystem and to provide recreation, potential conflict exists. It must be accepted that any component of recreation, no matter how small, will cause some disruption to the natural environment. Plans are therefore needed for the development and management of the system as a whole, so that the important natural environment may be protected and reasonable recreation opportunities developed for residents of, and visitors to, the National Capital.

The facility to manage the National Capital Open Space System will be a critical factor determining the rate at which its development occurs. There is little point in constructing facilities for public use if they cannot be adequately maintained. Integration of planning and development with management of the National Capital Open Space System is therefore a key practical consideration underlying all policies and determining the rate at which ongoing development priorities are implemented.

As part of the management process, it is necessary to monitor trends in use of the system, and user impacts, and to evaluate planning, development and management initiatives in terms of user satisfaction, cost and management problems. Such monitoring can result in more effective planning, design and management.

The potential benefits of NCOSS will be maximised if opportunities are provided for community and private enterprise initiatives in the provision and maintenance of recreation facilities within a framework of planning and management controls. Private enterprise developments within NCOSS may hence be permitted if they are consistent with the objectives for the system.

## 5.4 Planning Issues - Specific Areas

### 5.4.1 River and Creek Corridors

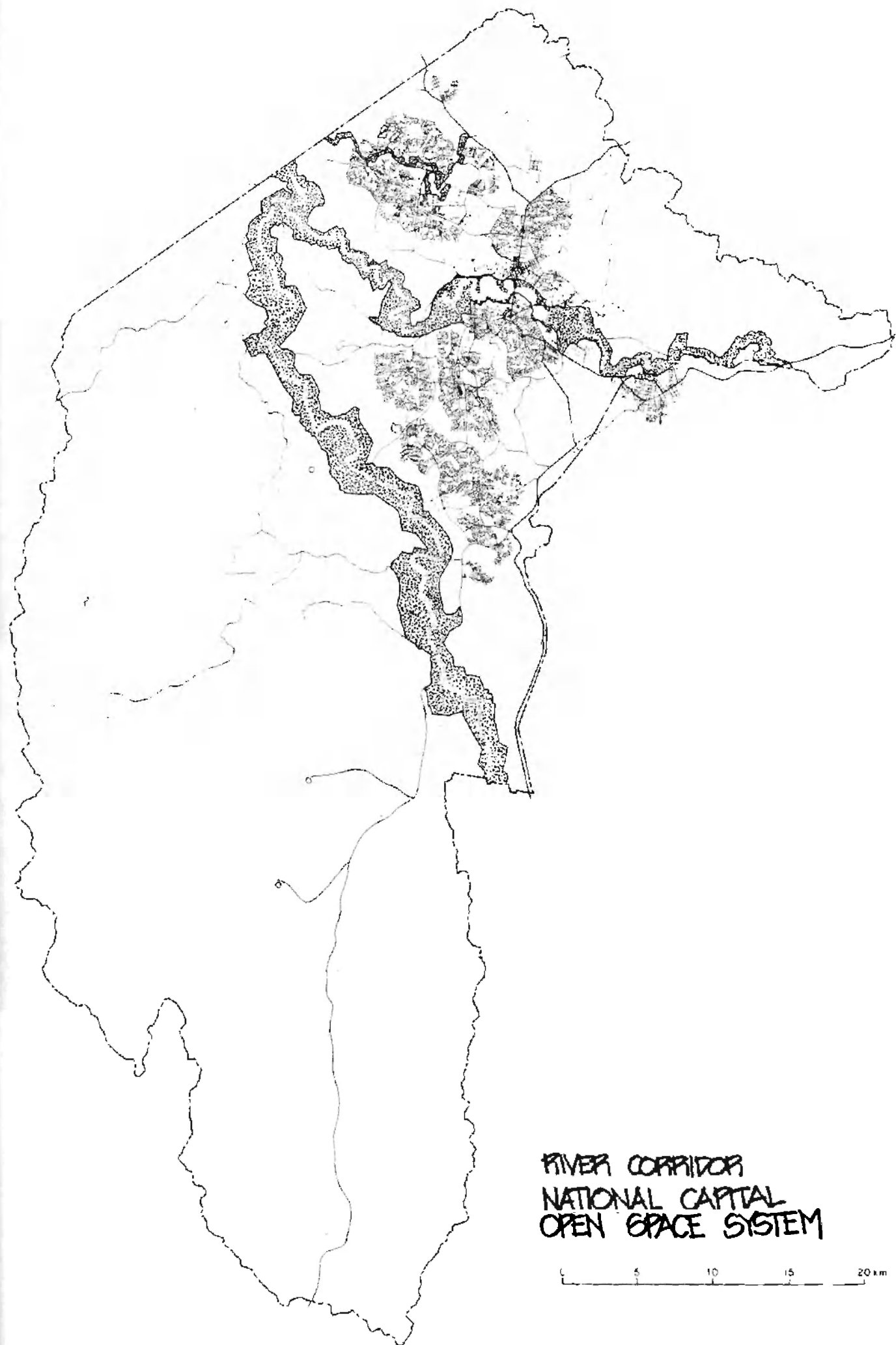
The corridors of the Murrumbidgee, Molonglo and Gudgenby River and Ginninderra Creek define zones which, because of their importance as a diverse scenic, ecological and recreation resource, justify a unified approach being taken to their planning and management.

The primary aim for the river and creek corridors is to reinforce and preserve their landscapes, heritage values and the ecological continuity of the rivers and creeks while providing a balanced range of recreation and tourist-related developments.

The Commission is also concerned to ensure that the quality of the waters of the river system is maintained at a level appropriate to the uses to which these waters will be put both within and downstream of the ACT and to prevent deterioration of water quality, either from external factors and the nature of the usage of the river and adjoining areas.

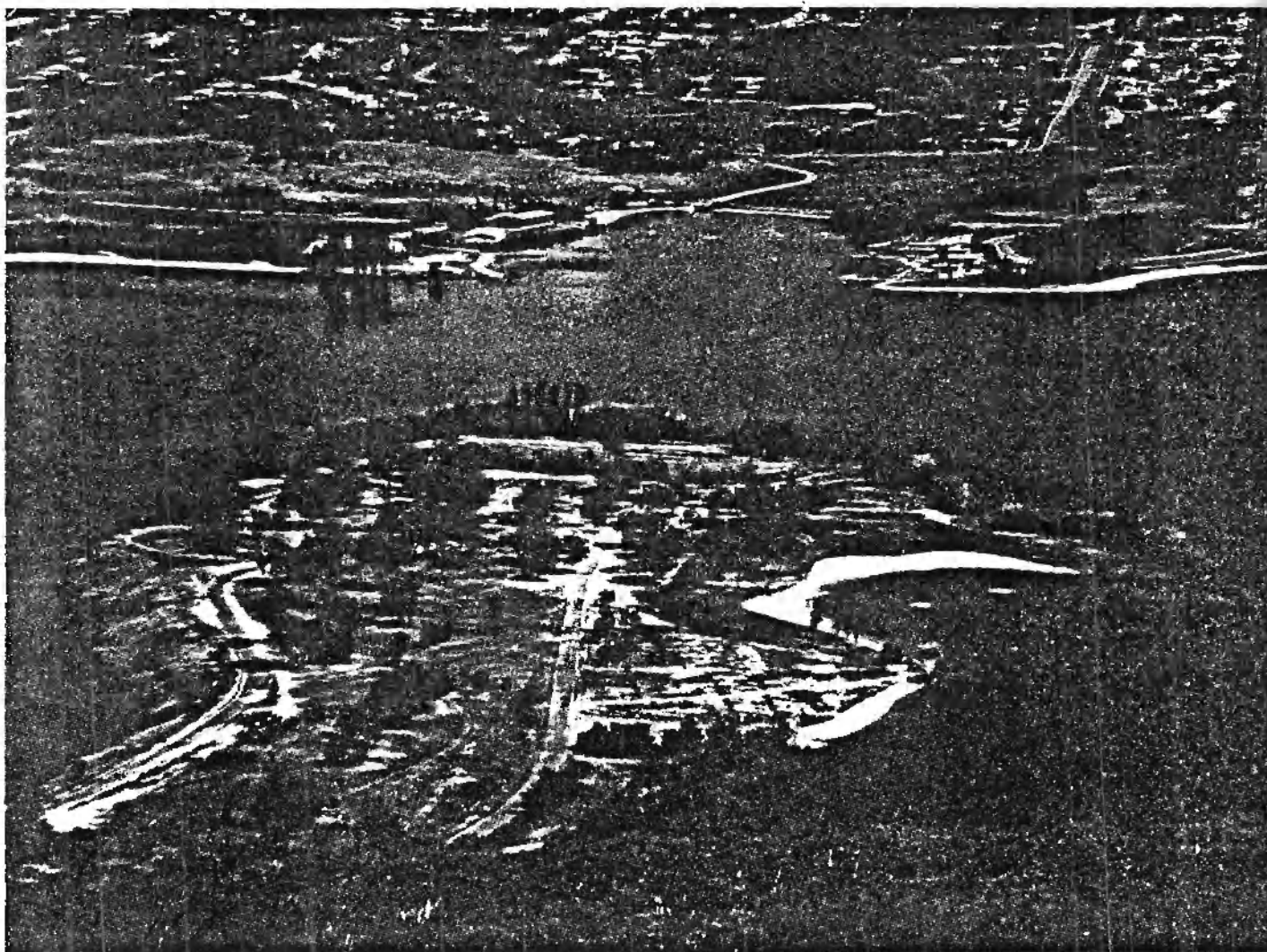
The same considerations apply also to the rivers and creeks within the recreation and bushland areas and to those within the associated rural landscape areas such as Paddys River and its tributaries.

Within the river corridors, it is proposed that gorge areas that have remained in a largely undisturbed state be defined and preserved as secluded natural areas used only for low intensity recreation compatible with their environmental protection. To achieve this it is essential to control as far as practicable the spill-over of excessive number of people from nearby riverside recreation areas or from any adjacent developments. In order to preserve the relative remoteness and inaccessibility of this gorge country, it is necessary to avoid having roads following the river in these locations, and to provide buffer zones or areas of low intensity use alongside the natural areas would further protect these areas from over-use. While vehicular access could be provided to scenic lookouts into the gorge, access into the natural area would be by walking or using the river.



RIVER CORRIDOR  
NATIONAL CAPITAL  
OPEN SPACE SYSTEM

0 5 10 15 20 km



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Black Mountain Peninsula and other  
lakeside parks provide a variety of  
recreation close to the City.

In contrast, there are areas where the river has a high natural quality, but the surrounding terrain is less steep and has been modified by grazing. Here, low intensity riverside recreation will be provided and the areas managed to regenerate the natural landscape. The intention in planning for recreational development in these parts of the river will be to reinforce and emphasise the natural intimate appearance of the river as a place for quiet retreat.

Intensive forms of river recreational development are proposed in those areas where sand beaches form safe swimming areas and the river margins are sufficiently wide enough for the provision of picnicking areas, other recreation uses and car parking set back from the river.

These higher capacity recreation areas are suited to the more placid sections of the Murrumbidgee River where the river is flowing through gentle country or alluvial plains and access can be provided on both sides of the river. Because these areas have been cleared of trees by agricultural use, tree planting will be required at an early stage to give shade and shelter.

#### 5.4.2 Urban Lakes, Lakeside Parks and Waterways

The highest intensity of use within the National Capital Open Space System occurs at the urban lakes and lakeside parks, where the environment is largely manmade for recreation.

In the next decade, existing recreation areas around the lakes could more than double their present use and require more intensive development and management. Additional parking and other facilities will be needed at existing recreation areas, and new areas will need to be developed. Further landscape improvements and the completion of the system of access roads, paths and bicycle trails is also required, to all parts of the lakes and parklands, to improve the opportunities for recreation and the quality of the recreation experience.

There will be also an increasing demand for sites for clubs and other kinds of waterfront development. The provision of concessions for boat hire, outdoor eating and drinking places and other tourist-related development along the lakefront would add greatly to people's enjoyment. While some intensive waterfront development could be justified, such development should be grouped in selected areas and the development kept to an appropriate scale so as not to detract from the other essential qualities of the lakes. Suitable areas for this kind of development might include the Acton ferry terminal area, Yarralumla Bay and the Kingston boat harbour area.

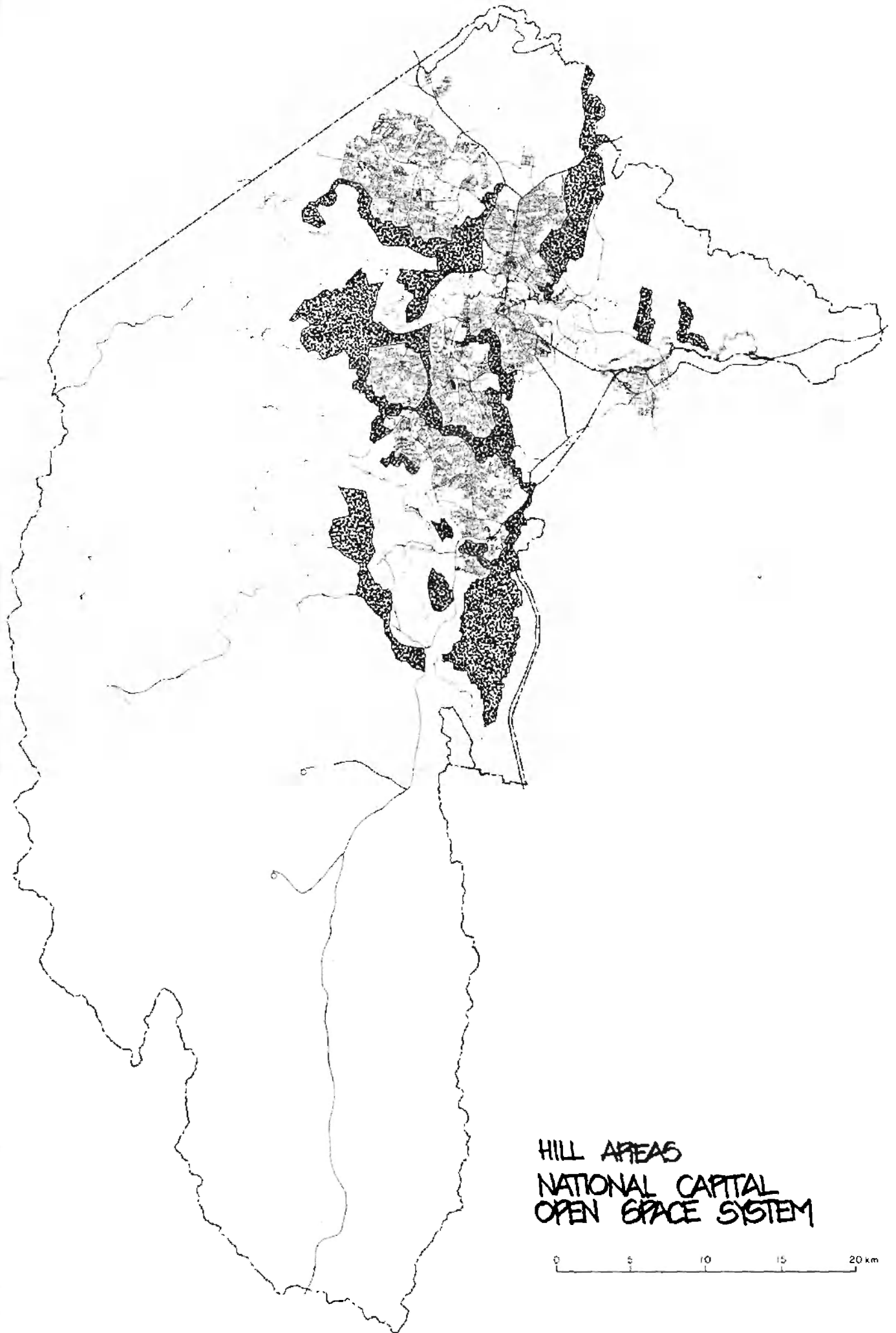
The Molonglo waterway upstream from Dairy Flat bridge is presently used for power boating and waterskiing. The growth of this activity will require both access to the river along the 5-km section upstream of the bridge and construction of some public facilities.

The National Capital aspects of Lake Burley Griffin also will need to be given growing emphasis. The completion of the New Parliament House and the proposed development of Griffin's land and water axes in the Parliamentary Sector will increase viewpoints and opportunities for tourist and visitors to experience the National Capital. The creation of places of National Capital interest adjacent to the lake catering to tourists and visitors provides opportunities for easier public participation in the national and ceremonial life of Canberra and will help to maximise satisfaction with their visit to Canberra.

The proposed development of the Museum of Australia on the northern shore of Yarramundi Reach will further extend the National Capital interest around Lake Burley Griffin.

#### 5.4.3 Hill Areas

The hill areas do not attract the same intensity of use as the lakes and rivers but play a greater role in satisfying the landscape function of NCOSS. It is therefore critical that the hill areas be preserved from urban development and their essential landscape/environmental character retained and reinforced so as to provide the unified background and landscape setting for the National Capital.



HILL AREAS  
NATIONAL CAPITAL  
OPEN SPACE SYSTEM

0 5 10 15 20 km

It is not proposed for all hill areas to be treated or maintained in the same way. While a low maintenance approach is to be taken for all hill areas, the landscape treatment and resource management should depend on the area's relative importance within the total system, its environmental condition and the likely extent of public usage.

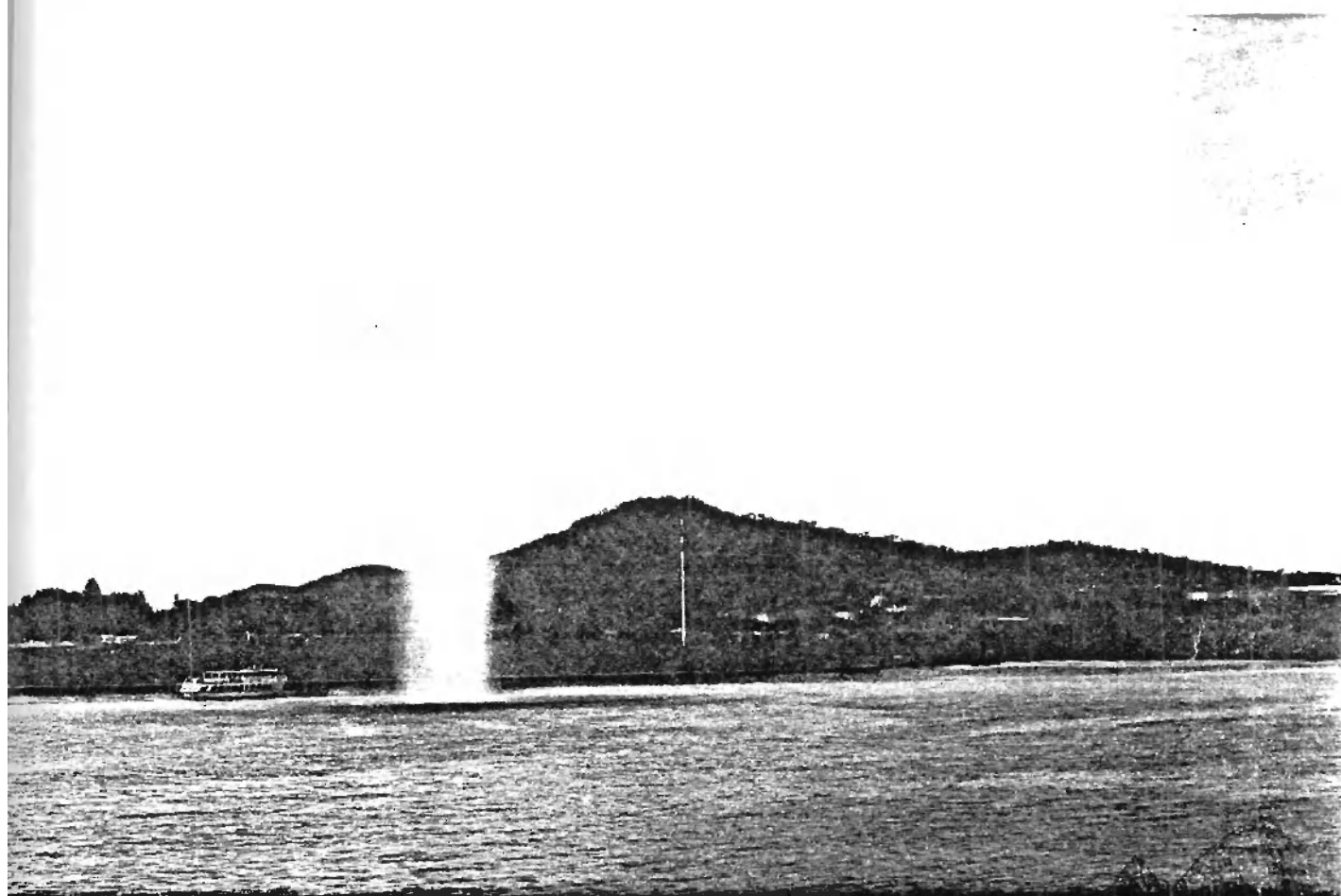
Preservation of the crestline and wooded slopes of Black Mountain, Ainslie-Majura and Red Hill from any development which might detract from them as key elements in the Griffin Plan is seen as a matter of high priority. The scale and appearance of other hills and ridges should be maintained so as to provide a landscape buffer zone between towns and between the city and its rural background.

While densely wooded areas are significant as nature conservation areas, there are landscape benefits in maintaining a diverse landscape pattern ranging from open grassland, savannah woodlands through to close tree cover. The open areas help to emphasise land form of the hill and contrast with densely wooded areas. For some hills, the pine planting gives further variety in the overall landscape, provided that the dominant species of the native vegetation are retained in other hill areas.

To effectively maintain landscape and ecological diversity, the hill areas need to be developed and managed as an inter-connected open space system with different parts having their own special character and use.

It is not intended that the hill areas serve only as public open space. The hill system is intended for multiple use appropriate to the location and characteristics of each hill. The range of uses includes recreation, nature conservation, softwood production, firewood production, grazing, siting of engineering works including telecommunications facilities and tourist and other special developments.





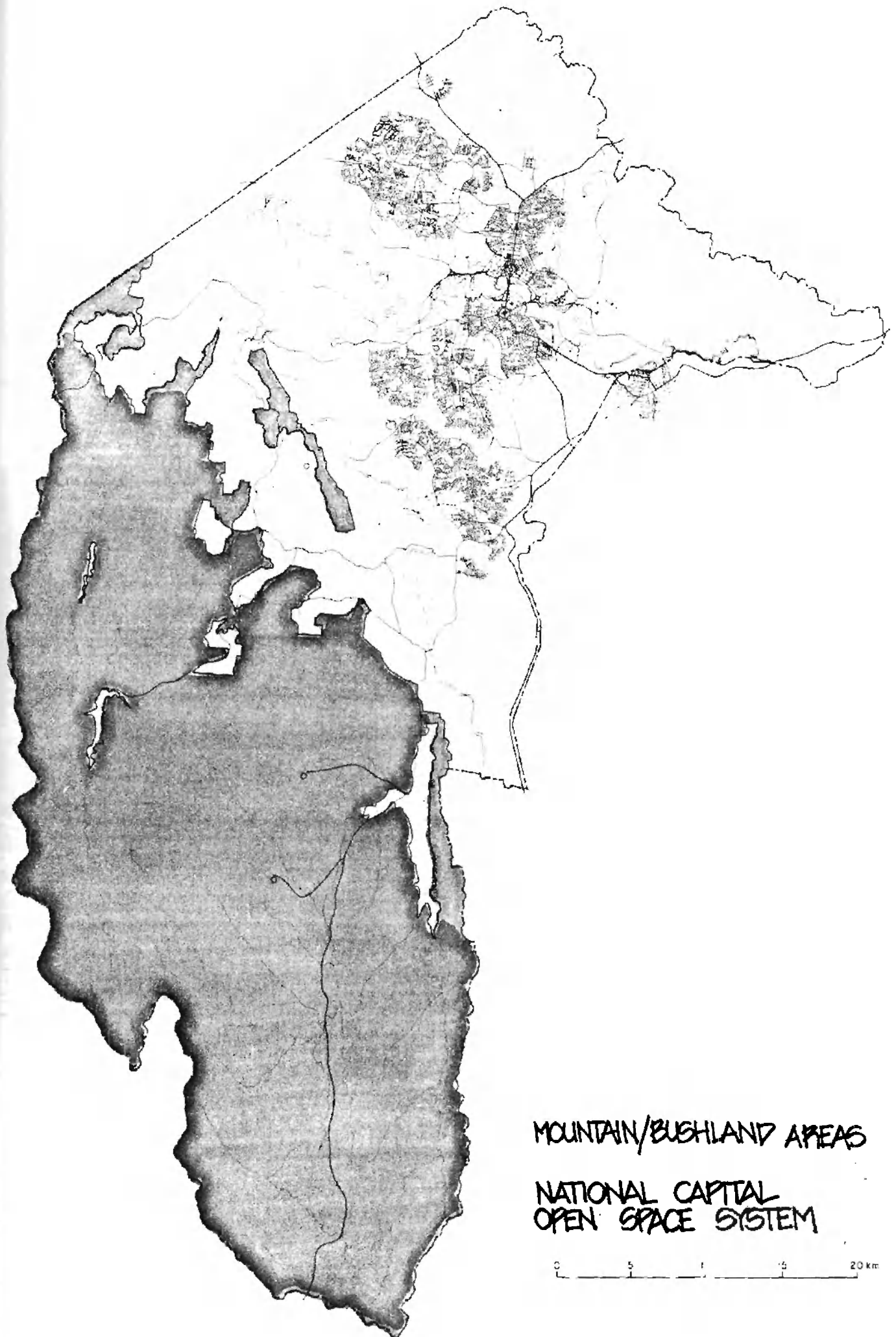
#### 5.4.4 Mountain and Bushland Areas

The mountains which form the background to the views of the city are less important in detail in their views but are still critical elements because of their contrasting shape and colour, and when snow-covered in winter can provide the most dramatic element in these views.

Water supply for Canberra is the primary function of these mountain and bushland areas which encompass both the Cotter and Gudgenby River catchments, and ~~was~~ is the main reason for their inclusion in the ACT when Canberra was proclaimed as the Seat of Government in 1910. The water supply function, however, is consistent with nature conservation and bushland recreation although the level of public access will be largely determined by the extent of water treatment provided. If the demand for recreational use of the upper Cotter catchment is satisfied in the future, this could result in the need for full water treatment. In the meantime, however, it may be proper for the Commonwealth to continue its closed catchment policy for as long as possible as a means of deferring the high expenditure required for full water treatment.

The Gudgenby River catchment south of Mt Tennent includes both the Gudgenby and Naas Rivers. On the basis of current population projections, construction of Tennent Dam will not be required until towards the end of the century. Given its proximity to the urban area and recreational pressures, full water treatment may be required.

Tidbinbilla Nature Reserve and the proposed Namadgi National Park covering the existing Gudgenby Nature Reserve and the adjoining upper Cotter River catchment will be managed and protected to sustain their environmental quality. Draft Policy Plans for Gudgenby and the Cotter catchment are to be published for public comment which will enable the Department of Territories and Local Government to prepare more detailed management plans of Namadgi National Park for its conservation and use.



MOUNTAIN/BUSHLAND AREAS

NATIONAL CAPITAL  
OPEN SPACE SYSTEM

0 5 10 15 20 km



Pieter Arriens

Revegetation of rural lands is necessary to restore a more continuous woodland cover and to replace ageing and unhealthy trees.

Boboyan Pine Plantation within the Gudgenby Nature Reserve is to be restored to native vegetation but pine plantations in the lower Cotter, Pierces Creek, Uriarra, and Paddys River Valley will be retained as multiple-purpose areas for recreation and other uses compatible with the primary productive purposes. Public use of pine plantations is already being encouraged and further uses such as camping at Sherwood Forest will be permitted. Because of fire danger, however, access must be restricted at times during summer.

While most of the mountain and bushland areas is generally unsuitable or too remote for intensive recreation use its wide variety of landscapes seen from Boboyan Road, Brindabella Road, Corin and other rural roads (including those in pine plantations) provide attractive scenic areas for Sunday drives, roadside picnics, nature study and bushwalking in keeping with their nature conservation and present or potential water catchment function.

The possibility of winter resort development in the Brindabella Range, in addition to the existing development at Smokers Gap based on artificial snow-making techniques, is a matter for further consideration.

#### 5.4.5 Associated Rural Landscape Areas

In An Open Space System for Canberra George Seddon points out that "the Canberra setting is a noble and simple landscape with strong and well defined elements, of which the mountain blocks along the skyline to the west and south are dominant. For the most part it is singularly uncluttered landscape, never petty, deeply satisfying in its sweep and range". He recommended in the report that key areas in the ACT should be zoned rural in a positive sense to retain the open uncluttered pastoral landscape.

The urban growth of Canberra and the continuing demand for land for Commonwealth and associated urban purposes could change the whole scale and appearance of the countryside of the ACT unless key rural landscape areas are deliberately retained in rural use. As well as retaining

examples of the typical countryside close to the National Capital for the enjoyment of future generations and minimising the impact of urbanisation there are certain rural areas which, while not necessarily significant in themselves, form part of a larger more spectacular scene. Because of their association with the larger scene these areas are better retained as a single open land use rather than being fragmented for smaller scale non-urban uses in response to demand. Their continued use as rural land and designation as rural landscape foreground areas could act as a brake to ad hoc development and prevent the rural blight that occurs around the urban/rural fringes on other cities.

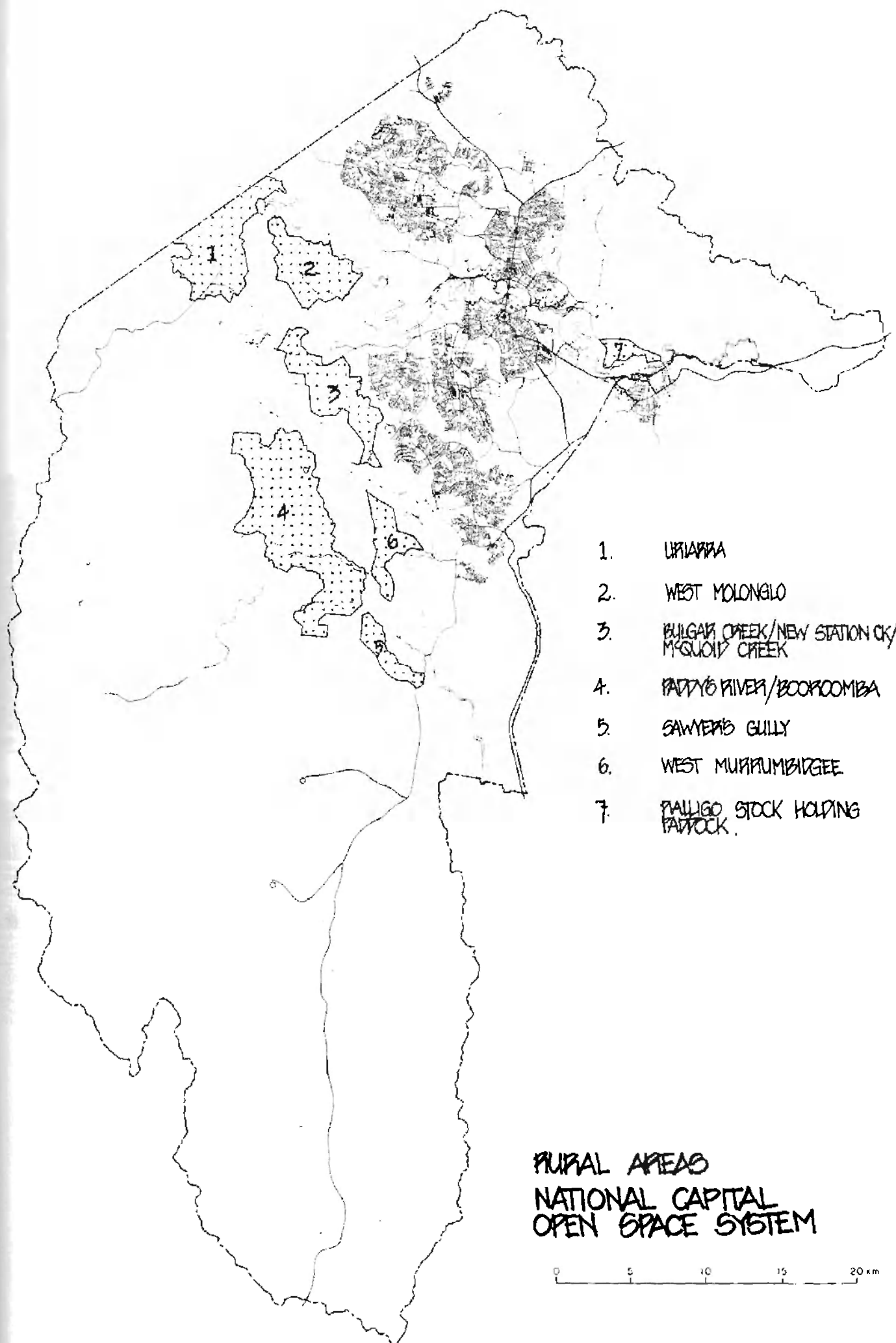
The most significant of these rural landscape foreground areas are as follows:

- . Bulgar Creek-New Station Creek-McQuoid Creek:
- . Molonglo Valley (southern side downstream of Bluetts Pines):
- . Pialligo Abattoir Stock-Holding Paddock:
- . Paddys River Valley:
- . Lanyon Riverview/Lambrigg.

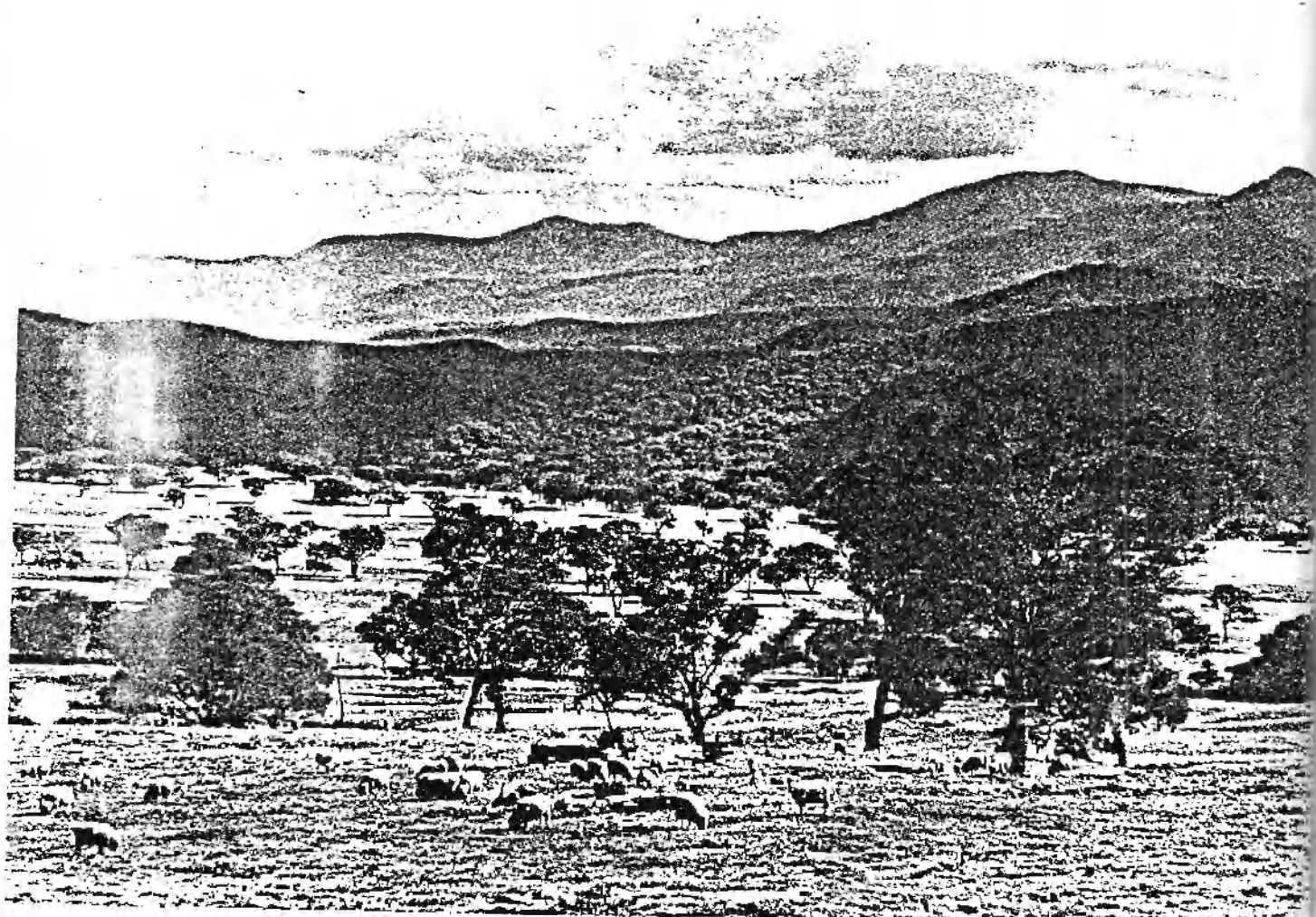
The other associated rural areas do not have such high visibility and while retention of the rural character is still seen as an important objective, they are the more appropriate parts of the land bank for accommodating the more visually intrusive developments.

The retention of the associated rural landscape areas also ensure representative examples of the typical Australian countryside close to the National Capital and retains visible links with Canberra's rural past.

Within the associated rural landscape areas the planning policies for the area should endeavour to ensure that the rural leases remain economically viable. Suitable development could be permitted







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Bulgar Creek area is a key rural landscape providing a foreground to views of the Murrumbidgee escarpment and the mountains beyond from the Cotter Road.



within the area provided that these are either in association with the rural use or are compatible with the rural use in maintaining the broad landscape character. The future planning and management of these areas could involve:

- . Consolidation of leases to ensure the economic viability of the rural activity.
- . Restriction of agricultural activities such as intensive poultry farming, feed lotting of cattle or the running of horse studs with stabling and intensive subdivision of paddocks into small runs.
- . Control over buildings and their use, consistent with the purpose of the rural lease.
- . Design and siting of buildings in character with their rural setting.
- . Measures to ensure tree regeneration or planting for the maintenance of the open savannah woodland.
- . Special conditions for paddocks extending into the river corridor, particularly those adjacent to nature reserves. As well as controlling stocking rates this could also include restrictions on the use of fertilisers, pesticides, pasture improvement, irrigation etc.

#### 5.4.6 Nature Conservation Areas

Areas that have remained in a largely undisturbed state are to be defined and preserved as nature conservation areas used only for environment protection. Those areas would be declared and managed as nature reserves similar to those currently operating for Gudgenby, Tidbinbilla, Black Mountain and Molonglo Gorge.

Buffer zones or areas of lower intensity use would be provided alongside the nature conservation areas to further protect these areas from the spill-over of excessive number of people from nearby recreation areas.

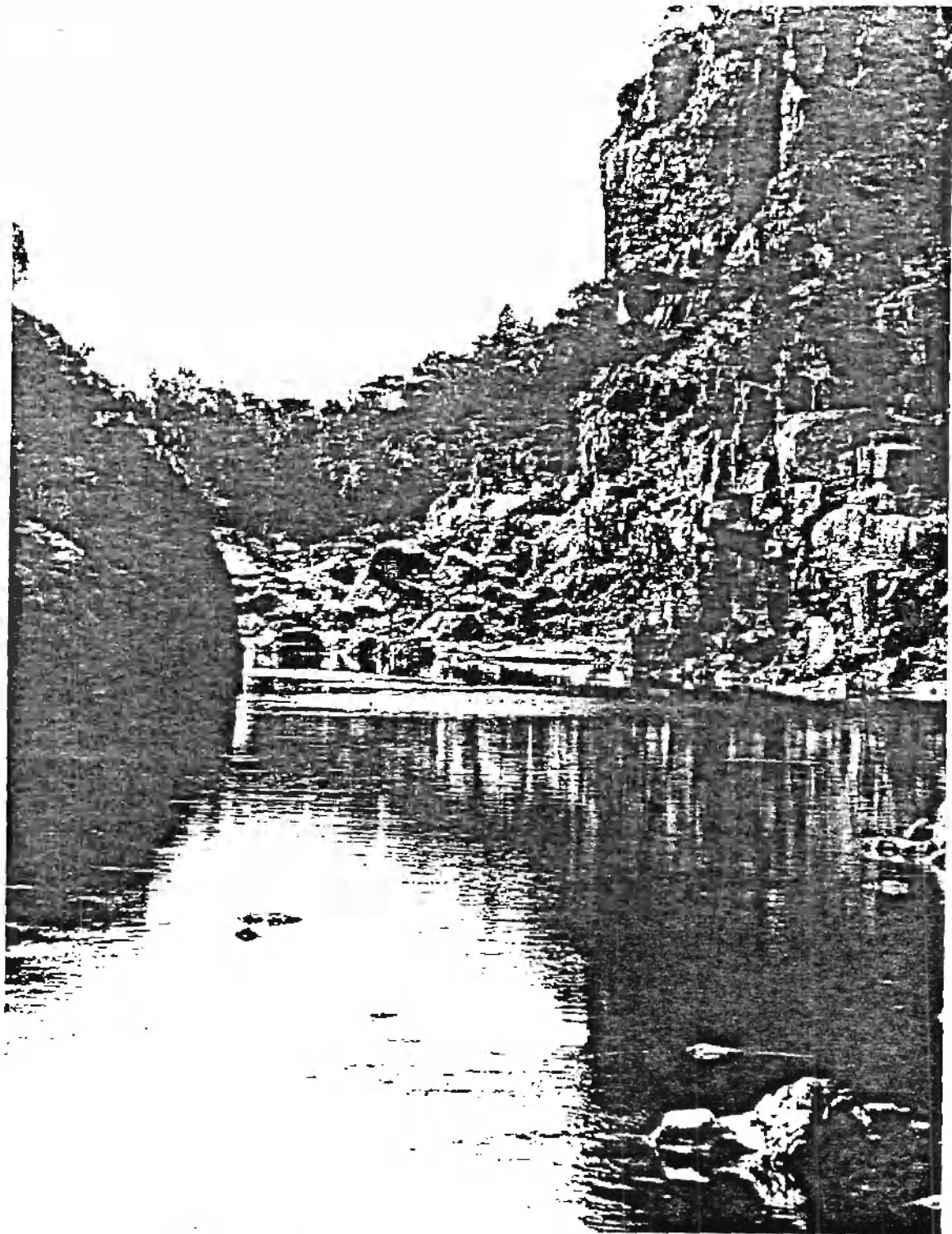
Some parts of nature conservation areas such as the western portion of Gudgenby Nature Reserve and the eastern part of the Upper Cotter Catchment would be given formal recognition as wilderness areas. These would be areas of high ecological and scientific value in which the ecological processes should be virtually unaffected by man and would give a wilderness experience for those venturing into them. They would be generally free of roads, vehicular tracks and permanent walking trails.

In addition to the large continuous mountain/bushland areas in the south west of the ACT smaller areas of relative undisturbed land within the river corridors ..... Red Rock Gorge and hill areas such as Ainslie-Majura also be defined and preserved as nature conservation areas.

The total provision of nature conservation areas in the ACT will represent about 60 per cent of the Territory. This provision is considerably higher than the I.U.C.N. (International Union for the Conservation of Nature). The Cotter Catchment is one of the most important areas within the ACT. The whole Catchment, excluding the pine plantations, has a high conservation value with some of the areas being of very high significance.

The Catchment includes a number of habitats which are not represented or <sup>are</sup> poorly represented in the rest of the ACT. Another important function is that the various plant communities found in the Cotter Catchment reflect the original natural distribution pattern unlike many other parts of the ACT and surrounding region.

A number of plant communities in the Cotter Catchment including sub-alpine woodland and wet sclerophyll forest containing Alpine Ash or Brown Barrel are of ecological interest in that they are near or at the edge of their natural geographic range of distribution. There are also many sites of significance including the locations of rare and uncommon plant species, important animal habitats and excellent examples of plant community types which are poorly represented in the region. Other sites of significance include archaeological and historical sites, and some areas are very important as fauna habitats.



Pieter Arriens

Red Rock Gorge

In a regional context, the Cotter Catchment is part of a much larger nature conservation area and forms the link between Gudgenby Nature Reserve in the east and Kosciuszko National Park and the proposed Brindabella National Park in the west. The recently proposed Namadgi National Park is the essential part of this system.

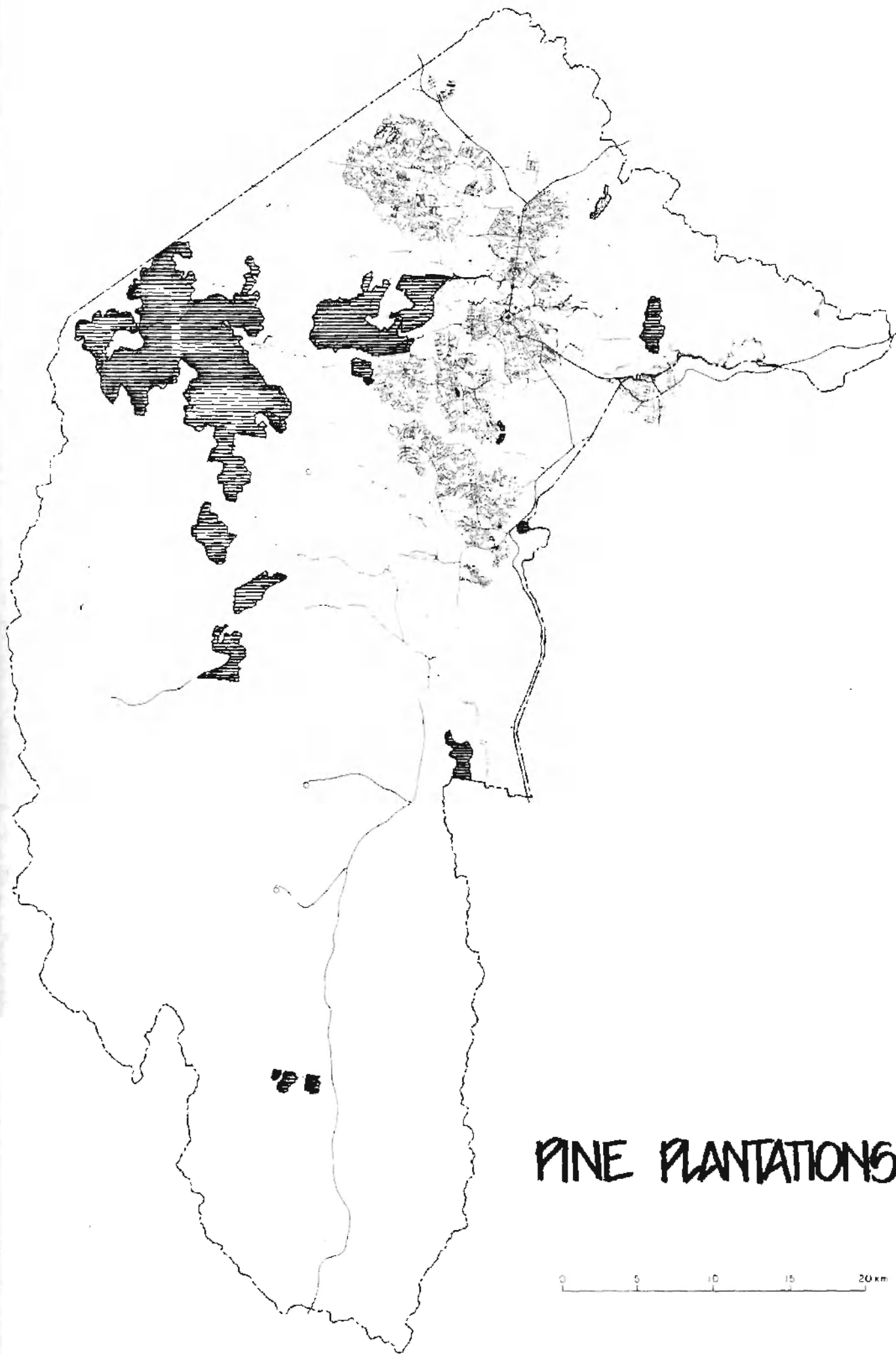
#### 5.4.7 Pine Plantations

Although some of the effects of extensive pine planting in the landscape can be criticised, on visual grounds, pine plantations if carefully sited and developed can add interest to the landscape by helping to emphasise the shape of land forms and adding colour and variety to the broader landscape scene.

The pine plantations within the National Capital Open Space, because of their nearness to the urban areas, provide for high levels of recreation use.

It is intended that the pine plantations, which are an important source of employment in the ACT, will be retained within the NCOSS as multiple use areas. Additional plantations however, will be limited to the minimum required to satisfying Commonwealth contractual obligations, having regard to their possible effect on the broader landscape of the ACT. To minimise their impacts on the broader landscape, it is proposed that their boundaries should be irregular where practicable and be in scale with the topography. The edges would be softened through maintaining a permanent landscape edge along the boundaries and along the main public roads through the plantations, with occasional openings to views. As far as practicable the visual diversity of the plantations would be enhanced by retaining areas of native woodland or forest within the plantations (e.g. along creek valleys) and by arranging clear felling to break up large uniform areas of single age class.

Some of the pine plantations closer to where services can be provided could be further modified to provide special development sites and tourist related uses. Further recreational usage of the pine plantations would also be facilitated by the provision of forest drives, trails and picnic/barbecue areas.



## PINE PLANTATIONS

0 5 10 15 20 km



Pieter Arriens

West side of Isaac Ridge showing an example of native woodlands retained within the pine plantation, adding to the landscape diversity.



Pieter Arriens

Pine forests if carefully sited and managed can add interest and variety to the landscape.

#### 5.4.8 Vegetation Restoration Areas

The decline of trees in the rural landscape is occurring in the ACT as the stock of original trees dies or age and more growth is prevented by current grazing practices.

It is proposed that the Commission and the Department undertake an on-going revegetation programme to halt the decline of trees so as to retain the open savannah woodland appearance of the rural landscape for the enjoyment of future generations of residents and visitors.

Areas within the hill and river corridor system have therefore been proposed for revegetation either by regeneration or by replanting.

Research has been undertaken to establish the resilience of natural vegetation to usage and the management practice necessary for regeneration.

A survey and monitoring system has been established to measure the decline of trees in the rural landscape and the effectiveness of the revegetation programme.

Soil erosion control measures will be carried out in conjunction with the revegetation programme.

#### 5.4.9 Recreation Area

Most recreational development will continue to be located along the river corridor and the shores of urban lakes.

The Molonglo River below Scrivener Dam to Bluetts Pine plantation is likely to remain unsuitable for swimming because of low river flow and the adverse effect of urban drainage from Woden and Weston Creek. Because of land suitability and its relationship to the Stromlo, Bluetts and Greenhill Pine Plantations, this section of the Molonglo is proposed for extensive area/broad in expanse park development for semi-active and active recreation.





# VEGETATION RESTORATION

0 5 10 15 20 km

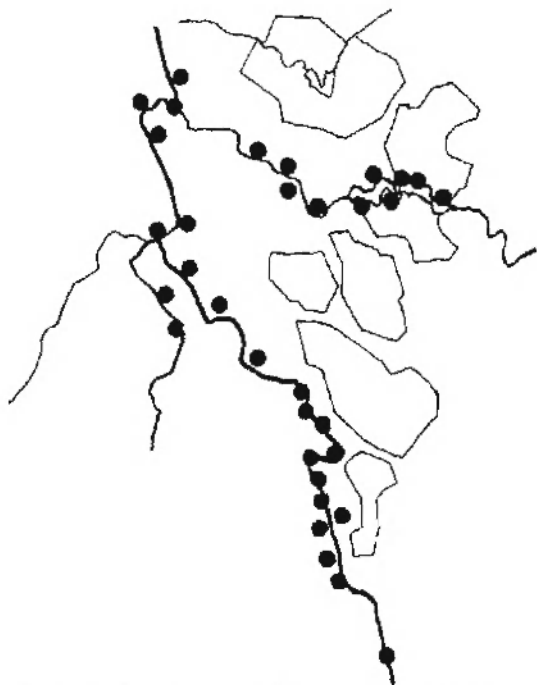
Having regard to the ability of the river corridors to absorb recreational development without detriment to landscape/environmental quality the recreation resources are limited and the future demand is likely to exceed capacity if Canberra grows to over half a million population.

In view of the likely growth of population and tourism beyond the century and the increasing demand for a greater range of leisure activities and holiday facilities, it is considered prudent to reserve land for larger off-river high capacity parks away from the rivers. Land away from the river is more suitable for intensive development than most of the areas within the river corridors. These parks could provide off-river lagoons for swimming and boating, as well as a wide range of other recreation, in a predominantly man-made landscape.

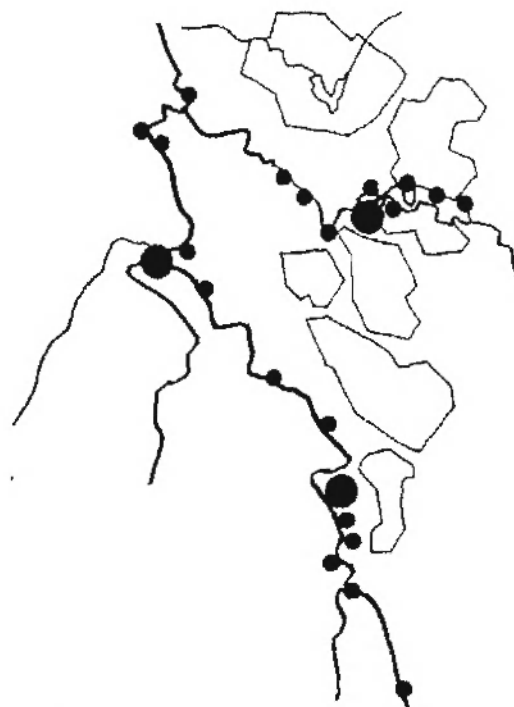
They could also be the focus for tourist resorts and recreation villages. To be successful, these would require a high degree of development by both public and private enterprise. The tourist accommodation could support a wide range of commercial entertainment, including eating and drinking places, which could be used by local people as well as by tourists adding significantly to the diversity of leisure-time activities available within the open space system.

The locational requirements for off-river recreation areas which might also eventually be developed as resort areas and recreation villages, would be an area of between 400 and 600 hectares capable of damming to provide lagoons and a variety of topography including a large proportion of relatively level land. It should also be well located in regard to the metropolitan road system.

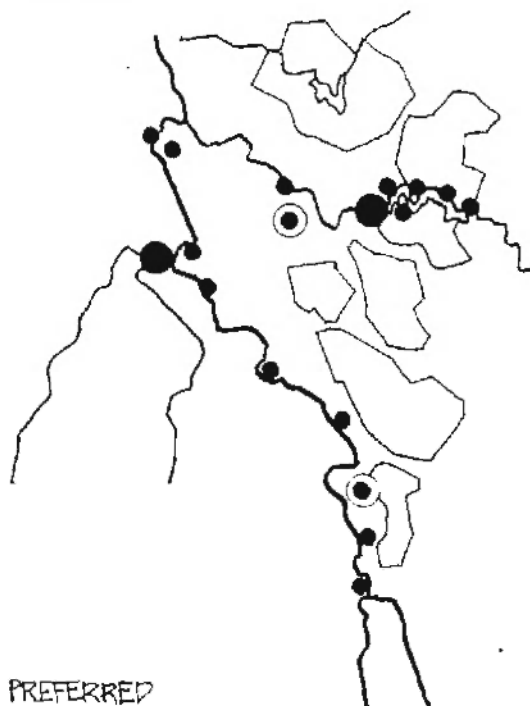
Having regard to land area, soils, topography and accessibility some of the associated rural landscape area would be suitable for this purpose. This would require further investigation before any location can be finalised.



OPTION 1: MINIMAL DEVELOPMENT OF ALL AREAS WITHIN THE RIVER CORRIDOR



OPTION 2: SELECTIVE DEVELOPMENT OF LOW AND HIGH CAPACITY RECREATION AREAS AT STRATEGIC LOCATIONS WITHIN THE RIVER CORRIDOR



PREFERRED

OPTION: DEVELOPMENT OF SEVERAL HIGH CAPACITY RESORT AREAS AT OFF-RIVER LOCATIONS, OTHER OFF-RIVER AREAS AND HIGH AND LOW CAPACITY AREAS WITHIN THE RIVER CORRIDOR

⊙ HIGH CAPACITY OFF-RIVER RESORT AREA

● HIGH CAPACITY RIVER CORRIDOR RECREATION AREA

• LOW CAPACITY RIVER CORRIDOR RECREATION AREA

## OPTIONS FOR LOCATION OF FUTURE RECREATION AREA

This approach accepts that it will be just as important to develop more leisure time activities and recreation facilities within the urban areas as on the periphery. Lake Burley Griffin, Lake Ginninderra in Belconnen and the future lake in Tuggeranong could provide the focus for more intensive recreation development within the urban areas.

#### 5.4.10 Special Development Sites

Special development sites (as designated) already occur within the hill and river corridor system and future areas are proposed for special development.

These areas are to be limited to recreation and tourist type development directly related to the open space system, National Capital uses and, in some cases, engineering and telecommunications facilities.

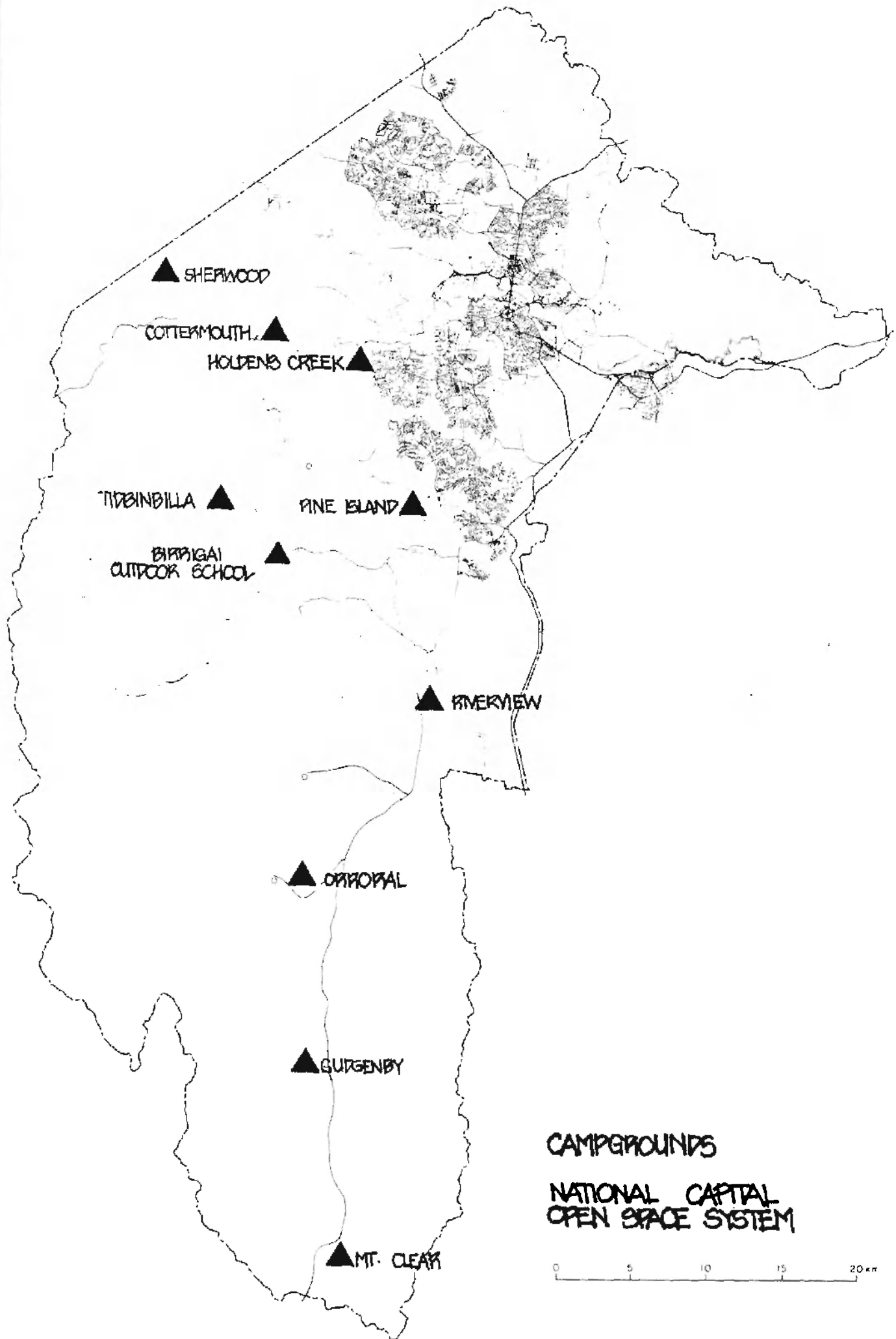
Building and structures in these areas will require careful design, siting, landscaping and management to ensure that they do not detract from the primary role of the open space system or adversely impact on areas beyond their site.

#### 5.4.11 Camping Area and Low Cost Accommodation

Provision will also be made for low cost accommodation and camping at suitable locations within the open space.

While it is not possible to establish the demand or economic viability for a camp development in any particular location, it has been accepted that there is a latent demand for rural camping and low cost accommodation in the rural areas and open space system by tourists and for Canberra residents during weekends and school holidays.

The type of camping grounds and low cost accommodation that could be provided in the rural areas of the ACT and in the National Capital Open Space are given in Appendix.



Areas proposed for early development within the open space system are shown in Development Plan. These include Cottermouth, Holdens Creek, Pine Island and Riverview.

Early planting is required at the Cottermouth site to enclose the area and minimise the visual impact of the development on the broader landscape: The Scout Camp and Presbyterian Conference Centre Camp are already located in the area.

Pine Island and Holden Creek sites are within existing pine plantations so that their impact on the landscape beyond is minimal.

Riverview site has the largest potential for future development as a popular high-use area which could be used also by people visiting the Gudgenby area further to the south.

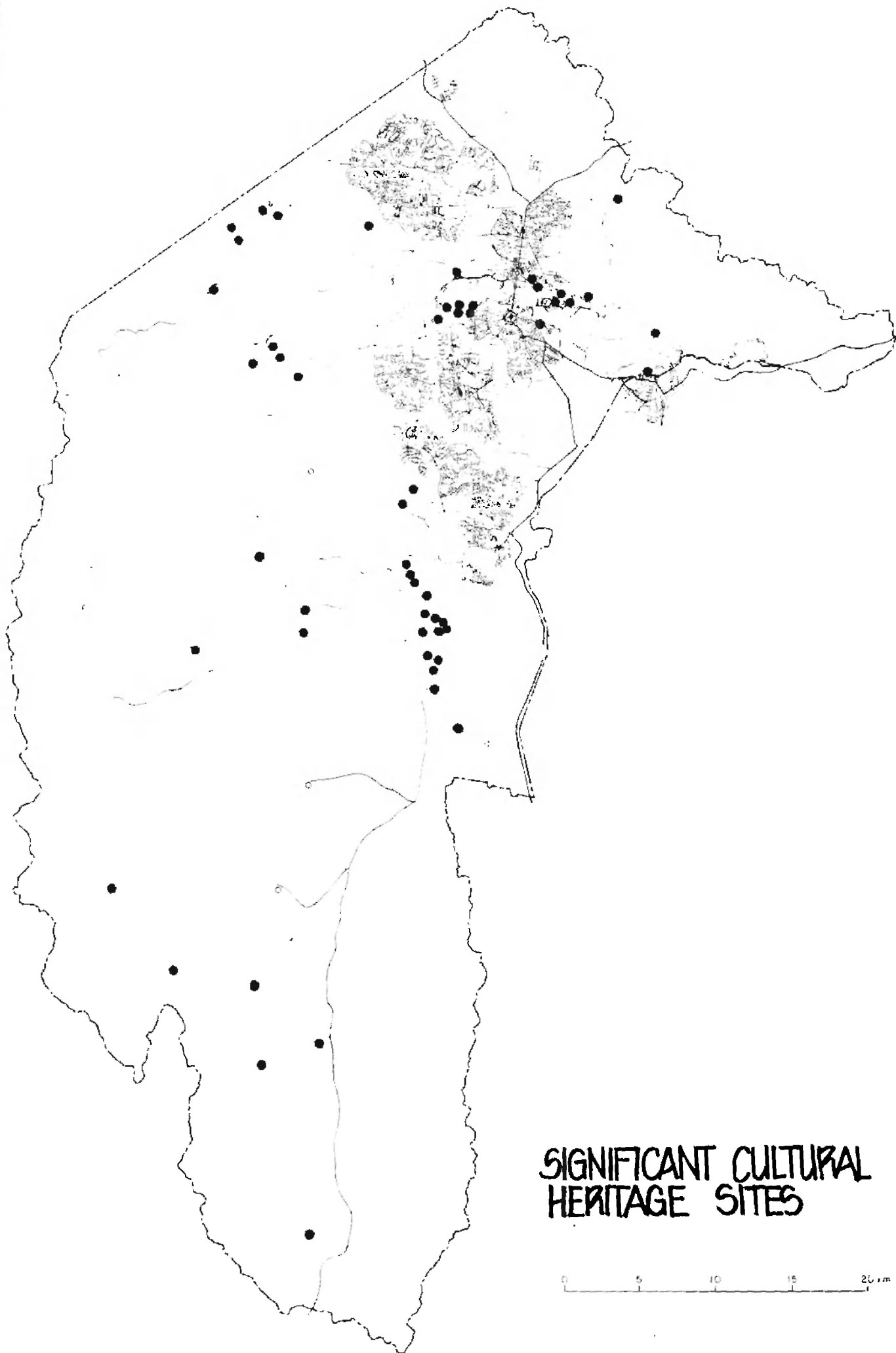
It is proposed that further investigation be carried out to determine the site of a rural conference centre within the open space system and/or the adjoining rural landscape areas.

The rural conference centre would consist of development around a central dining/conference facility with outdoor provision on the site for a range of recreation activities such as golf, tennis, horseriding, jogging, bushwalking etc.

#### 5.4.12 Archaeological and Cultural Sites

Every effort is to be made to protect and preserve places and buildings having significant archaeological, historic and cultural associations so as to retain visible links with Canberra's past and for the purposes of research, education and public interest.

As far as possible, the appropriate rural landscape/environmental setting is to be retained or re-established. Suitable access is to be provided and appropriate uses arranged for the land or buildings that will allow their retention and maintenance in a relatively unchanging state.



**SIGNIFICANT CULTURAL  
HERITAGE SITES**

0 5 10 15 20 km

As well as buildings and structures, it is also proposed to retain cultural landscape resulting from past agricultural practices. The most important of these is the Lanyon-Riverview area, not only because of its quality, but also because it is part of the rural landscape surrounds to Lanyon and Lambrigg Historic Sites. The boundaries of Lanyon Historic site have been defined and a draft policy plan prepared.

#### 5.4.13 Ecological and Geological Sites

While many of these are included within proposed nature conservation areas, there are a number of smaller sites of ecological and geological significance which are to be preserved and protected for the purpose of research, education and public interest. In some locations, provision is to be made for access and interpretation facilities.

#### 5.4.14 Trail and Path System

A trail system is proposed to connect the hill areas and river corridors, with access trails from urban areas, into a total inter-connected system.

In general, two types of paths and trails should be provided:

- i) graded and surfaced trails in areas of heavy demand.
- ii) natural trails in low use areas.

Separate cycle and horse trails should only be provided in suitable areas where there is likely to be heavy usage justifying separation so as to avoid conflict between users. Generally, a multiplicity of exclusive trails is to be avoided, otherwise this could lead to a breakdown of the scale and character of many areas in the open space system.

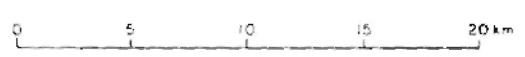
In some parts of the open space equestrian usage may be incompatible with pedestrian usage and environmental objectives. This is certainly the case around Lake Burley Griffin.





To be completed.

# ECOLOGICAL AND GEOLOGICAL SITES



Criteria for the location of trails and paths are given below:

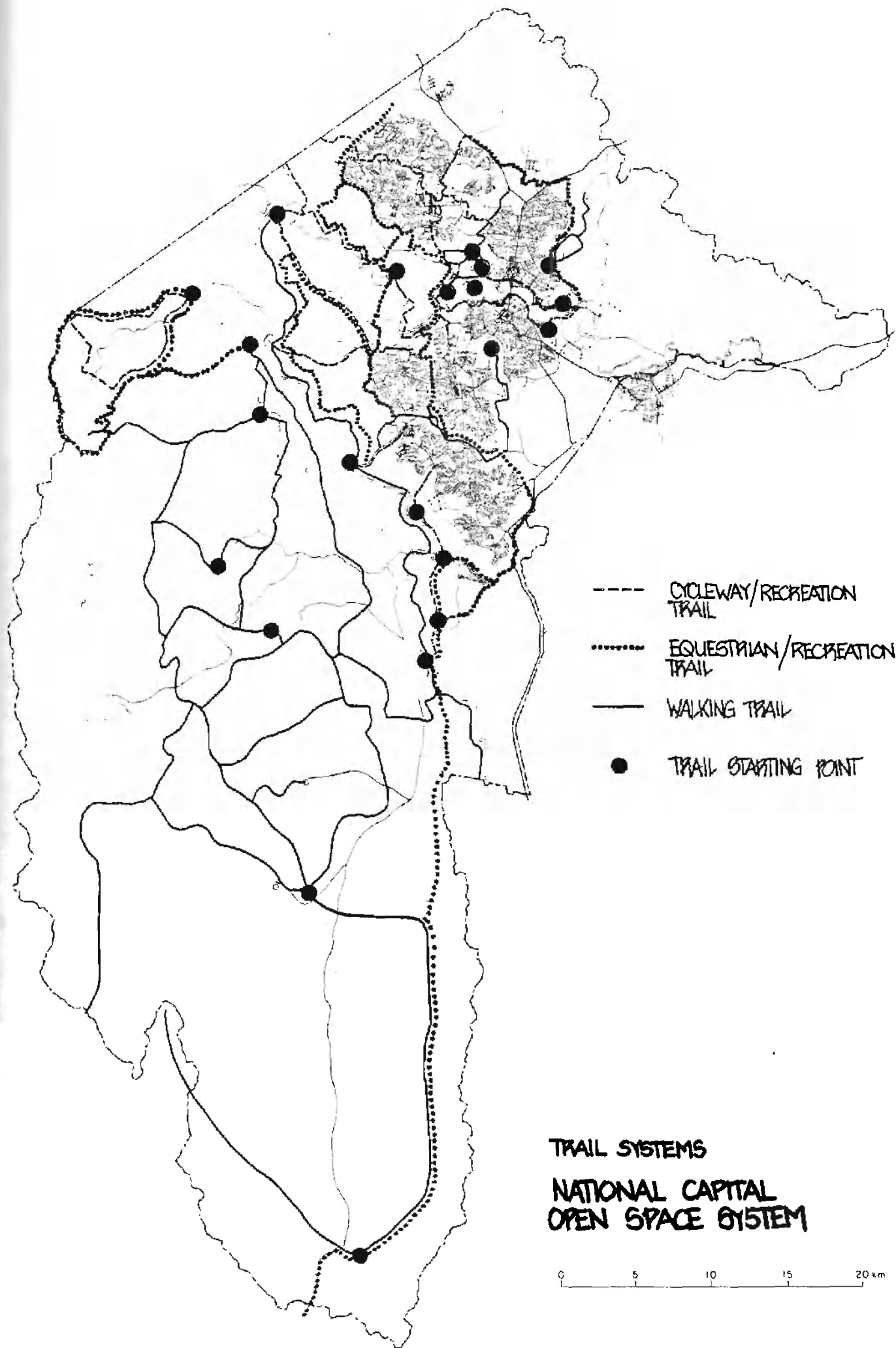
- i) Alignment should be related to the conditions of the terrain and the character of the environment.
- ii) Trails should connect the main recreation centres, natural features, places of scientific and historical interest and offer a variety of scenic views and environmental experiences.
- iii) The locations should be related to the vegetation pattern and natural habitats revealing these to the user but at the same time, taking care to minimise environmental disruption.
- iv) Trails should generally by-pass sensitive and fragile areas.

Because of the nature of the terrain, the main graded trail system will tend to follow the river corridors and the lower slopes of the hills and ridges.

Generally, the system should enable people to return to their starting point without the need to back-track, irrespective of the time available. The main trails should be suitably signposted and in some cases, connected to interpretation facilities, where information can be obtained about the trail, the nature of the country traversed and places of interest to stop at.

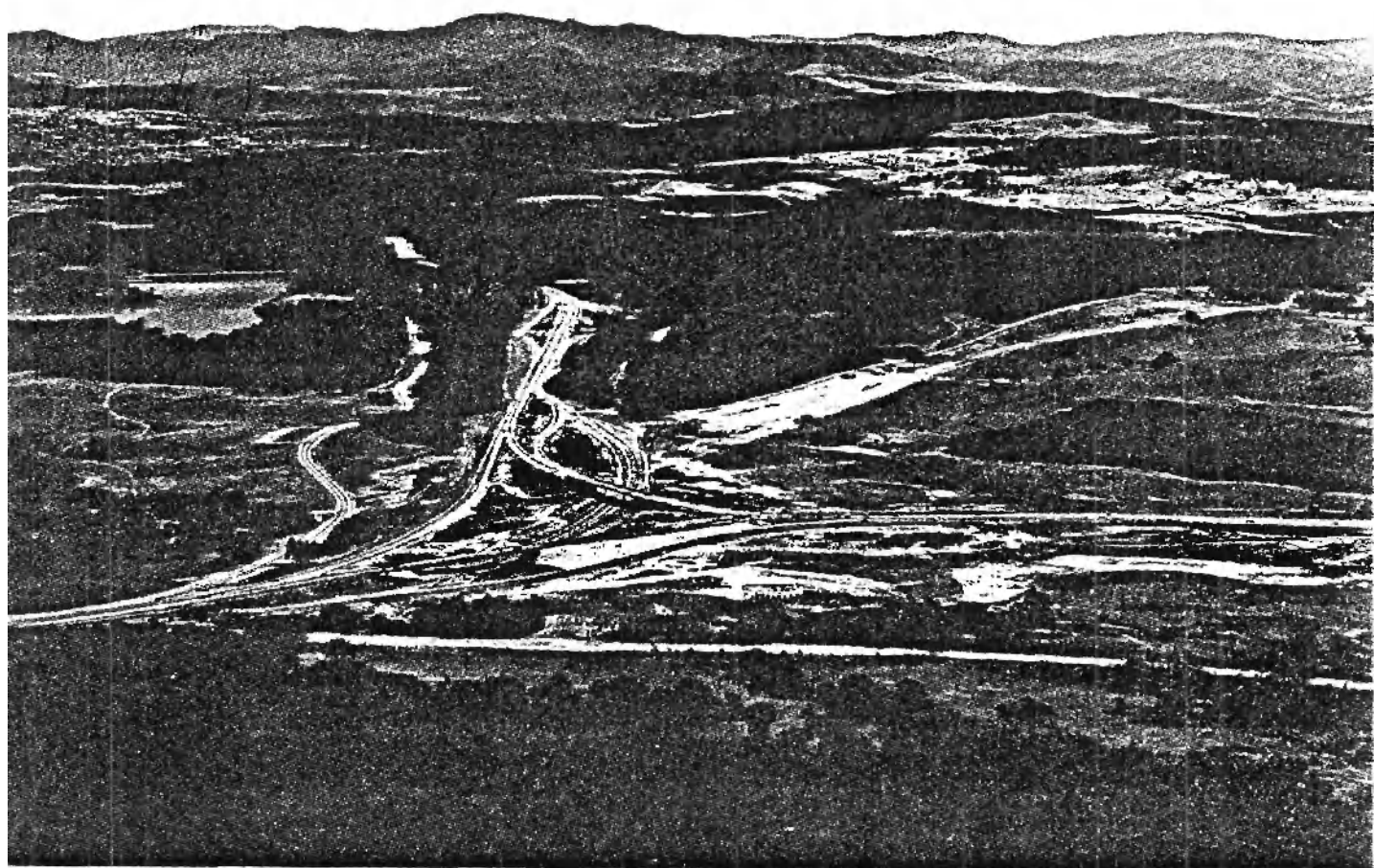
Maintenance Access Tracks: Access tracks will also be necessary for maintenance purposes including maintenance of recreation areas, removal of rubbish, supervision of usage, fire control and servicing of utilities.

As far as possible, the number should be limited by designing these for multiple use as walking/equestrian trails and cyclepaths.



Maintenance Access Tracks: Access tracks will also be necessary for maintenance purposes including maintenance of recreation areas, removal of rubbish, supervision of usage, fire control and servicing of utilities.

As far as possible, the number should be limited by designing these for multiple use as walking/equestrian trails and cyclepaths.

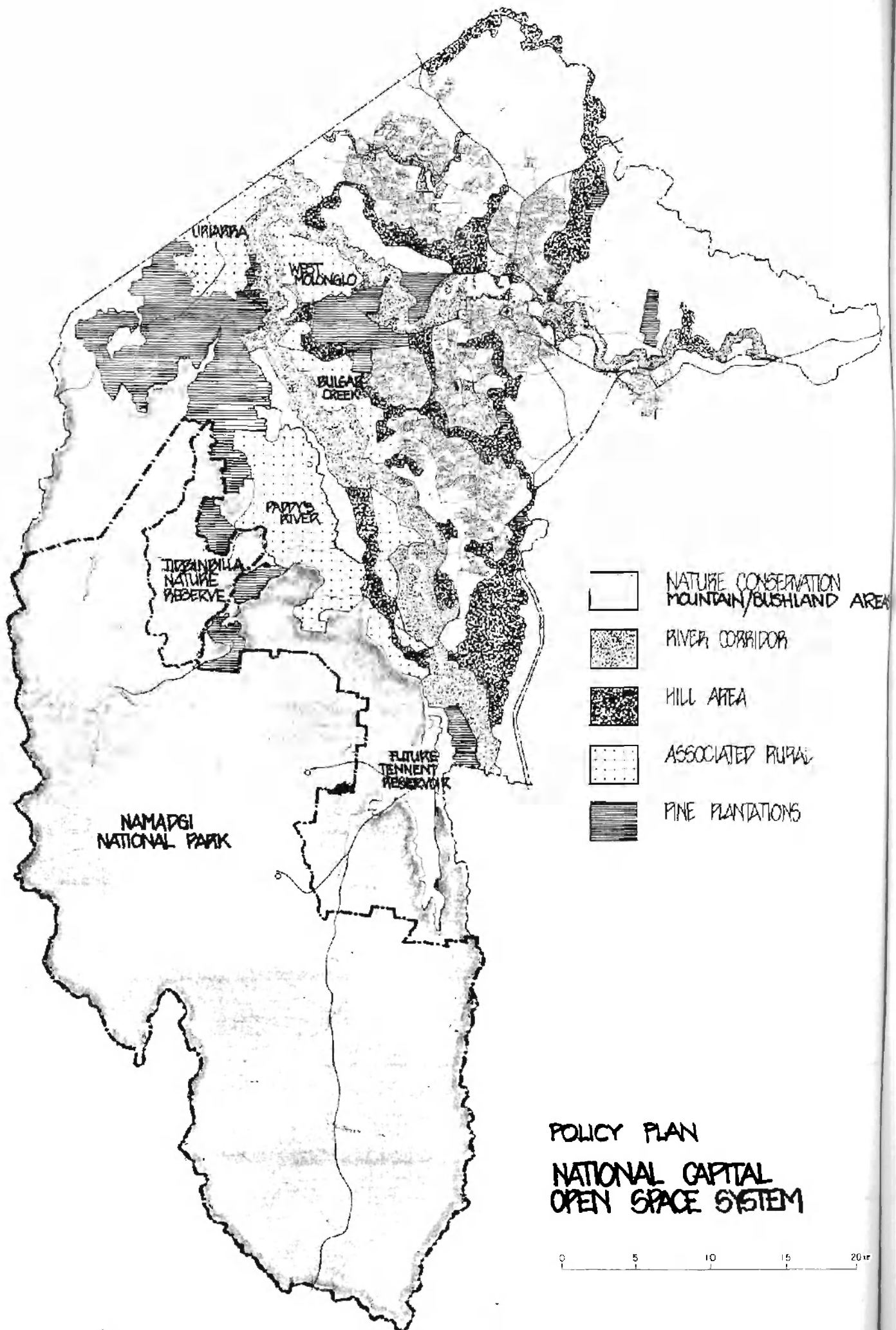




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## Chapter 6

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## 6.0 DRAFT POLICY PLAN

### 6.1 General Policies

#### 6.1.1 Landscape Setting

The National Capital Open Space and associated rural areas will be preserved and enhanced as an essential part of the scenic background and landscape setting to the National Capital. The preservation and enhancement of the landscape character and diversity is the objective against which all proposals for use and development will be measured.

#### 6.1.2 Land use and access

The National Capital Open Space System ~~System~~ and associated rural areas will be planned so as to facilitate and improve visual and physical access and provide a balanced range of recreational opportunities and other uses in a manner that reinforces the National Capital Open Space System as a diverse ecological, cultural, scenic and recreational resource. Associated rural landscape areas~~es~~ will also provide a land bank for future National Capital and recreational needs.

#### 6.1.3 Conservation and resource protection

The ecological, recreational, cultural and scenic resources of the National Capital Open Space System and associated rural landscape areas will be protected consistent with usage, providing the best use of each part without degrading its desirable condition or the quality of the experience.

#### 6.1.4 Management

Planning and development of the open space system and associated rural landscape areas will be integrated with effective management that sustains specific uses and recreational activities consistent with conservation, landscape protection and other planning policies.

## 6.2 Specific Area Policies

### 6.2.1 River Corridors

#### 6.2.1.1 Preamble

The Murrumbidgee, Molonglo, and Gudgenby River corridors are key elements in the ACT landscape and provide a diverse ecological, scenic and recreational resource which is increasingly being used by both residents and visitors for a variety of recreation activities, particularly sightseeing, swimming, picnicking, nature study, fishing, canoeing and walking.

The boundaries of the river corridors define the 'areas of special national concern' which require a unified approach being taken to their planning, development and management if their essential landscape/environmental qualities are to be retained.

## Policies

- (i) The river corridors will be preserved from urban development and their essential landscape/environmental character and ecological continuity retained and reinforced.
- (ii) Existing forest and woodland will be preserved, tree cover in partly cleared areas strengthened, damaged areas rehabilitated, including revegetation, and any future uses and development to take place as sympathetically as possible.
- (iii) The river corridors will be planned, developed and managed as an interconnected open space system, but not solely as public parkland, providing a range of recreation opportunities and other uses compatible with the maintenance of landscape/environmental values and as best suited to the characteristics and capability of the land and water resource.
- (iv) The water quality will be protected from adverse external influences and maintained to a standard compatible with river and corridor usage and protection of the aquatic ecology.
- (v) The river corridors will be protected as far as possible from uncontrolled access, visual intrusion, soil erosion, vegetation removal and other factors which could detract from their quality.
- (vi) Grazing will be restricted to areas where it is desired, for landscape, ecological or management reasons, to maintain open grassland or savannah woodland.

- (vii) A network of trails will be provided along and through the river corridors with access from urban areas. Vehicular access will be limited and controlled, terminating at main recreation areas.

#### 6.2.2 Urban Lakes

#### 6.2.3 Hill Areas

One of the greatest attractions of Canberra is that from almost anywhere in the city and ridges and slopes of the hills can be seen with their varied pattern of partially wooded grassland, and views to the mountain ranges beyond.

Certain of the closer hills are visually more important than others. The most important are those which can be seen from and form part of the National Area. The next in order of importance are the hills and ridges that shape and contain the spread of the urban areas. Other hills have local importance because they are visually prominent from main approach roads or are visually part of the river corridors.

#### Policies

- (i) The hill areas will be excluded from urban development and their essential landscape/environmental character retained and reinforced to provide a unified landscape setting for the National Capital.
- (ii) The hill areas will be planned, developed and managed as an inter-connected open space system, with different parts having their own special character and use.
- (iii) A balance will be established and maintained between forested and partly cleared hills to give contrast and retain diversity in the vegetation pattern and land form.
- (iv) Multiple-use of the hill areas, including special development and services corridors, will be permitted provided that it is appropriate to the landscape/environmental intentions for hill areas. Any development on the lower slopes of a hill area will retain views open to the hill from the surrounding roads and not intrude into or close off main views.

- (v) Ridge top development for tourist or community purposes will be permitted in some locations where existing trees unify or screen the development, or on flat-topped ridges and hills where there is a backdrop of higher hills which prevent the development from being seen on the skyline from main views in the valley.
- (vi) Where development abuts a forested hill, planting will be undertaken in the development area to merge with the tree cover of the hill, and on partly cleared hills a transition zone of tree cover will be maintained above the development area.
- (vii) The crestline and wooded slopes of Black Mountain, Ainslie-Majura and Red Hill-Mugga will be preserved from any development which might detract from them as key elements in the Griffin plan.
- (viii) Hill areas will be protected as far as possible from uncontrolled access, visual disturbances, soil erosion, vegetation removal and other factors which could detract from their quality.
- (ix) A network of trails will be provided along and through the hill system with direct access from urban areas. Vehicular access will be limited and controlled.

#### 6.2.4 Mountain and Bushland Areas

##### Preamble

The most impressive views from Canberra are those into the Brindabella and Tidbinbilla mountain ranges that rise in the south and western parts of the ACT beyond the Murrumbidgee River. The mountain and predominantly bushland area has a wide variety of different landscapes from high mountains, snow-covered in winter, to foothills,

damp fern-covered gullies and alpine meadows, other forests, and areas of pine plantations, rivers, creeks and open valleys, all of which, contribute to its value as a scenic, ecological and recreation resource.

This area encompasses the Cotter River and the future Gudgenby water supply catchments, Tidbinbilla and Gudgenby Area Nature Reserves and Uriarra, Pierces Creek, Gibraltar Creek and Boboyan pine plantations.

#### Policies

- (i) Consistent with their primary water supply function the Cotter River and Gudgenby River catchments will be planned and managed as multiple use areas for nature conservation, recreation, timber production, scientific study and education purposes. The level of other uses permitted shall be compatible with the water catchment function and the level of water treatment provided.
- (ii) No short-term development will be permitted in the Tennent reservoir area

or the Gudgenby River catchment which could prejudice its ultimate use for water supply purposes.

- (iii) Areas that have remained relatively undisturbed and are not required for water supply reservoirs and associated works will be preserved and protected as wilderness and/or nature conservation areas with appropriate levels of bushland recreation. The usage and access will be controlled to a level that will prevent environmental deterioration that would significantly detract from the quality of the area or the experience of its use.
- (iv) Disturbed areas will be progressively revegetated by either natural regeneration or planting with a view to achieving a combination of forest and open valley landscape for low intensity bushland recreation and as a buffer to the nature conservation and wilderness areas.
- (v) Development will be kept to the minimum and shall be specifically related to the appreciation, use and/or management of nature conservation areas.
- (vi) With the exception of Boboyan, the existing pine plantations will be retained as multi-use areas for recreation and other uses compatible with the primary productive purposes. Boboyan pine plantation will be restored to native vegetation.
- (vii) Namadgi area will be declared and managed as a National Park.



#### 6.2.5 Associated Rural Landscape Areas

##### Preamble

In places within and adjacent to the National Capital Open Space System the landscape has been highly modified for agricultural purposes but has a distinctive rural landscape character which is typical of the Australian scene.

Within the alluvial flood plains (Lanyon-Riverview and Jerrabomberra-Pialligo) agricultural farmland extends to the rivers with introduced willows and poplars growing along the banks. In other places open grassland contrasts with areas of savannah woodland where the tree spacing gives the area a parklike appearance.

It is important to retain these rural landscape areas along the river corridors to provide representative examples of the typical Australian countryside close to the National Capital and as visible links to Canberra's rural past.

Some of these rural lands, while not necessarily visually significant when considered in isolation, form a foreground to a spectacular panoramic view beyond. These areas because of their association

with the larger scene are better retained as open rural land rather than being subdivided for miscellaneous urban and associated urban uses which could break down the scale and appearance of the countryside and intrude into the main view.

Bulgar Creek - New Station Creek area is an important rural landscape and foreground area that enhances views from the Cotter Road and Weston Creek of the Murrumbidgee Escarpment and the triple-tiered backdrop of mountain ranges beyond.

There are also other areas along the river corridors where rural and grazing should continue either to ensure a variety of landscape pattern ranging from open grassland through to dense forest or because of ecological/management difficulties involved in revegetation of the land.

#### Policies

- (i) Representative examples of the rural landscape typical of the Australian countryside will be retained and protected in association with the National Capital Open Space System.
- (ii) The importance of the rural landscape foreground areas associated with the National Capital Open Space System, particularly the Bulgar/New Station/McQuoid Creek area, South-west Molonglo, Lanyon-Riverview, Pialligo-Dairy Flat, Paddys River Valley and Booroomba, will be recognised in future planning. These areas will be subject to local policy and development plans aimed at retaining the pastoral character of the land while permitting appropriate National Capital and other Commonwealth uses that are compatible with rural usage in maintaining the broad landscape character.

- (iii) Agricultural activities such as intensive poultry farming, feed lotting of cattle or the running of goats, deer or other exotic animals, commercial horse studs or racehorse training stables will not be permitted.
- (iv) Removal of trees and natural vegetation will be controlled and tree regeneration and replanting will be encouraged with the aim of retaining the open savannah woodland character.
- (v) Certain conditions may be specified for paddocks extending into the river corridor, particularly those adjacent to nature conservation areas.
- (vi) Public trails for access to the Murrumbidgee from urban areas will be provided, located and managed to minimise the impact on the rural activities.

## 6.2.6 Nature Conservation Areas

### Preamble

Nature conservation areas are areas of relatively undisturbed native vegetation that are of ecological interest or of high scenic quality where the primary purpose is conservation and public appreciation of native flora and fauna within their natural environment.

These areas can also lend themselves to low intensity recreation requiring a natural setting. Important nature conservation areas include Black Mountain, Ainslie-Majura, Bullen Range, Red Rock Gorge and other gorges along the rivers, Tidbinbilla, Gudgenby and the Cotter River Catchment.

### Policies

- (i) Nature Conservation Areas will be managed with the aim of preserving and protecting existing natural areas, regenerating previously disturbed areas and controlling usage levels and access to restrict environmental damage to a level which does not detract significantly from the quality of the area.

- (ii) Any development will be kept to the minimum level required for public appreciation of such areas, and if practicable, be confined to the perimeter of nature reserves or to surrounding buffer areas. Grazing of domestic stock will not be permitted.
- (iii) Adjoining areas will be managed to avoid adverse effects on the nature conservation areas. This may involve restriction of access, control of stocking rates and restrictions on the use of fertilisers and pesticides, pasture improvement and irrigation.

#### 6.2.7 Pine Plantations

##### Preamble

The pine plantations have an important landscape function as well as providing for commercial timber production and soil erosion control and, because of their proximity to the urban areas, provide for high levels of recreation use.

Although some of the effects of extensive pine planting in the landscape can be criticised on aesthetic grounds, pine forests, if carefully sited and developed, can add interest to the landscape. They help to emphasise the shapes of the land forms and add colour and variety to the general scene.

##### Policies

- (i) Pine plantations will be retained as multiple-purpose areas for other uses compatible with the primary productive purpose.
- (ii) Clearfelling will be managed to minimise the visual impact in the broader landscape and to break up large uniform areas of single age class to increase visual diversity.

- (iii) A permanent landscape edge will be maintained along the boundaries of the plantations and along public roads with occasional openings to views.
- (iv) Native woodland areas within plantations will be retained, particularly along plantation edges, public roads and up along creeks.
- (v) The total area devoted to pine plantations will be limited to the minimum required to satisfy Commonwealth contractual obligations having regard to their possible effect on the broader landscape of the ACT.

#### 6.2.8 Vegetation Restoration Areas

##### Preamble

Past land use has resulted in many areas where the landscape has been highly modified. There has been a decline of trees in the rural landscape as the stock of original trees die or age and new growth is prevented by current grazing procedures. There is a need to develop programmes to re-vegetate the rural landscape.

##### ~~6.2.8~~ Policies

- (i) A balance will be established and maintained between forest woodland and grassland to give contrast and retain diversity in the vegetation pattern and landform.
- (ii) Removal of natural vegetation will be controlled and tree regeneration will be encouraged so as to retain and enhance the open space environment. Where land is unsuitable for regeneration, provision to be made for revegetation.
- (iii) Native tree species will generally be used for revegetation.

- (iv) Provided <sup>THEY</sup> ~~it~~ can merge with and not dominate the natural landscape, introduced plant species may be used for functional purposes, for example, to provide summer shade in recreation areas.
- v) Low intensity recreation use and/or controlled grazing may be permitted when revegetation is completed.
- vi) Introduced plant species are to be conserved and replanted in culturally significant areas.

#### 6.2.9 Recreation Development Areas

##### ~~6.2.9.1~~ Preamble - -

People differ in their preferences for different kinds of recreation areas. Some seek out quiet places where there is minimal development while others prefer areas more intensively developed where there are crowds and "more things to do". Planning should aim therefore to provide for this diversity rather than just providing for the same kind of development.

In providing for this diversity recreation areas need to be located and distributed to reduce recreational growth pressures on natural areas and to give people the opportunity to experience these areas without the need for excessive travel.

The extent of development also should be related to the ability of an area to absorb recreational development without detriment to its landscape/ environmental quality.

##### Policies

- (i) Provision will be made for a range from low to high intensity recreation areas located and distributed to minimise recreational growth pressures on natural and ecologically sensitive areas.

- (ii) The intensity of development will be determined according to the physical and ecological carrying capacity of the site and as appropriate to the open space system as a whole.
- (iii) Intensive riverside recreation areas will be developed only in those areas where the river and sandy beaches form safe swimming areas and where the terrain is suitable for associated recreational uses, vehicular access and parking.
- (iv) High capacity multi-activity recreation areas will be developed away from the rivers so as to ease the pressure on the river and natural areas.
- (v) Recreational facilities and amenities will be provided and extended to meet public need. The design of such facilities will be appropriate to the character of National Capital Open Space System.
- (vi) Kiosks and other commercial concessions will be provided only at high capacity recreation areas in accordance with conditions to be formulated for these.

#### 6.2.10 Special Development Sites

##### Preamble

A continuing demand for special development sites for commercial and community/recreation/tourist activities and for National Capital purposes can be expected.

Special development sites (as designated) already occur within the National Capital Open Space System. There are a number of other suitable locations where development could occur, without adversely affecting the landscape/environmental character of the open space and/or the water quality of the river system.

##### Policies

- (i) Existing special development sites will be retained and measures taken to minimise their impact on the landscape/environmental character of the open space system and/or the quality of river water.

- (ii) Future special development sites will be restricted to commercial and community/recreation/tourist activities directly related to the use of the open space system and for National Capital purposes.
- (iii) Buildings and structures in these sites will be subject to careful design, siting, landscaping and management to ensure that the development does not detract from the primary role of the river corridor or adversely impact on adjoining areas.

#### 6.2.11 Cultural Sites

##### Preamble

Every effort shall be made to conserve places of cultural significance to retain authentic links with Canberra's past and for the purpose of research, education and public interest.

It is important that an appropriate context be conserved for cultural sites. Suitable access must be provided and uses arranged for sites and environs that will enable their conservation.

##### Policies

- (i) Cultural sites and their contexts are to be conserved wherever possible
- (ii) Cultural sites planning and management will enable land use and public access compatible with site conservation.

#### 6.2.12 Ecological and Geological Sites

##### Preamble

There is a number of ecological communities and geological features within the river corridors and hill areas which are of scientific and educational interest because they have a restricted occurrence in the ACT and the surrounding region.



While many of these are included within nature conservation areas there are a number of other sites of ecological significance which should be preserved and protected for the purpose of research, education and public interest.

#### Policies

- (i) Special sites will be established to preserve and protect significant ecological and geological features.
- (ii) Such sites will be planned and managed to permit public access in a way that does not conflict with the main purpose of the sites.

### 6.2.13 Trail System \*

#### Preamble

Vehicular access would be limited to the opening up of new recreation/picnicking areas at suitable locations but a trail system would give access to the entire open space system. A trail system would connect the hill areas and river corridors, together with access trails from urban areas, into a total interconnected system.

#### Policies

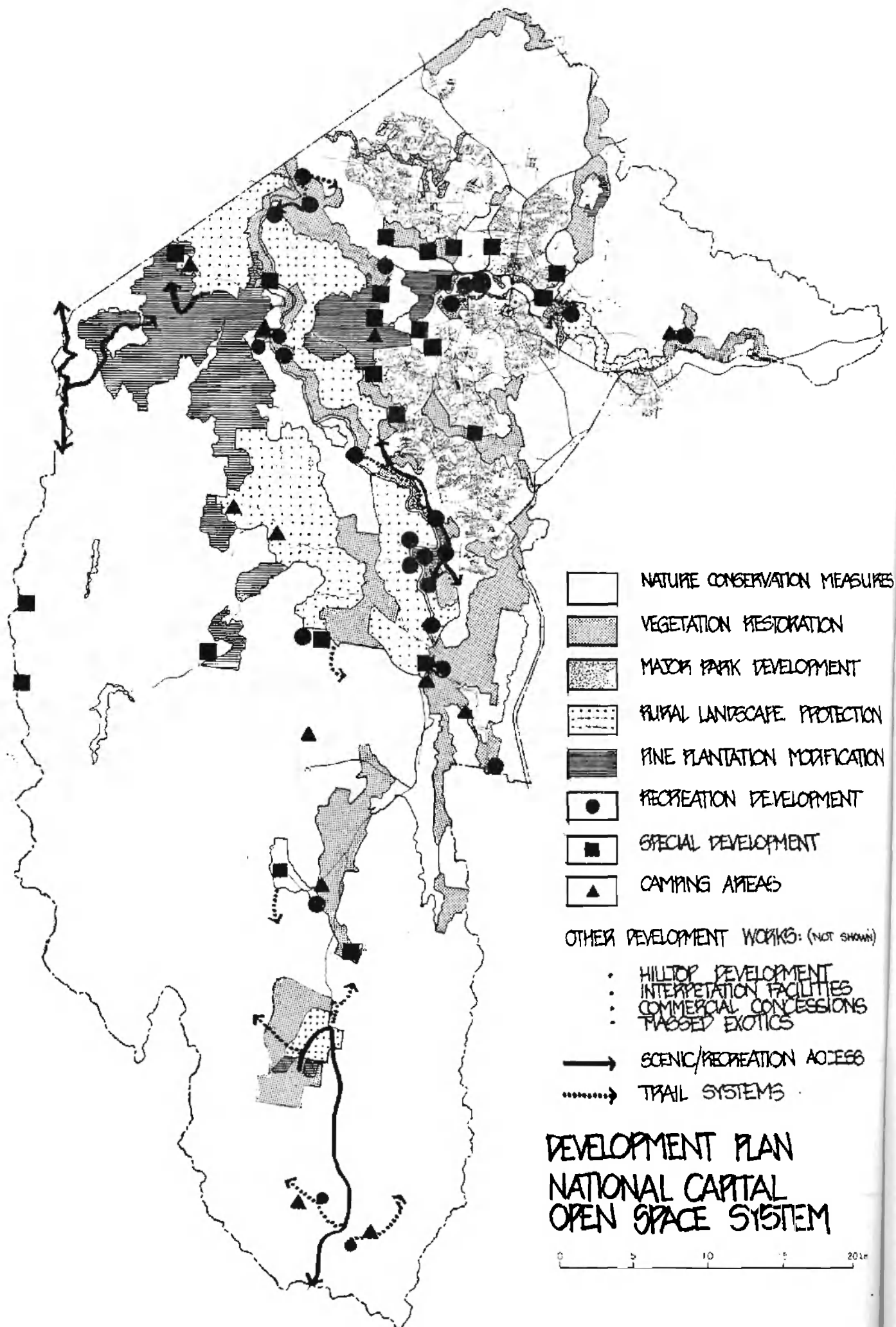
- (i) An interconnected trail system will be established along access trails from hill areas and urban areas.
- (ii) Trail location will be subject to detailed site planning and land management considerations to minimise the impact on environmentally sensitive areas. The trails shall be a series of loops to link places of interest and exploit views, and provide for round trips connecting back to parking areas.

- (iii) Trails will connect into the metropolitan trail system. On steep land, particularly in the timbered slopes, trails will generally follow the contours.
- (iv) The main access points for river gorges will be at the ends of the gorges rather than from above to reduce the likelihood of tracks being formed on steep slopes.

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## Chapter 7

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## 7.0 DRAFT DEVELOPMENT PLAN AND DEVELOPMENT PROGRAMME

### 7.1 Purpose of the Development Plan

The purpose of the Development Plan is to indicate the main development proposals which will need to be implemented to achieve the stated aims of the Policy Plan. The Development Plan indicates the main public works that will need to be carried out by the Commission and Department of Territories and Local Government as well as indicating opportunities for tourist related development by private enterprise.

The principal objectives of the Development Plan are:

- . to restore and protect the physical environment where it has been degraded by misuse;
- . to protect and preserve the essential qualities of the physical environment that are valuable;
- . to progressively improve access and recreation facilities to make the open space system more accessible; and
- . to identify locations for future national capital and tourist related development.

### 7.2 Draft Development Plan

The Draft Development Plan lists fourteen categories of projects and shows the generalised location of these. Not all locations of categories are shown. Others will require identification following the preparation of policy and development plans for the specific areas of the National Capital Open Space System.

The categories of projects which currently (1984) seem feasible and would contribute to the implementation of the Policy Plan are as follows:

1. Pine plantation modification
2. Nature conservation measures
3. Vegetation restoration
4. Recreation development
5. Rural landscape protection measures
6. Special development (National Capital and Tourist-related)
7. Camping areas
8. Hilltop development
9. Protection of sites of special interest
10. Trail system development
11. Interpretation facilities
12. Commercial concessions
13. Scenic and recreation access roadworks
14. Planting of massed exotics

### 7.3 Programme Priorities

Development works are subject to availability of funds in the capital works programme having regard to other Commission priorities. The following therefore lists the criteria for programme priorities in the National Capital Open Space System to enable preparation of a programme of works leading progressively to construction.

### 7.3.1 Pine Plantation Modification

#### 7.3.1.1 Priority

- . Harvested areas requiring landscape improvements because of their high visibility, e.g. Strömlo adjacent to Cotter Road and Green Hills Ridge.
- . Areas required for development purposes in the near future, e.g. Weston Creek tourist development, Museum of Australia site.

### 7.3.2 Nature Conservation Measures

Including gazettal action, fencing, soil erosion control, ranger stations.

#### 7.3.2.1 Priority

- . Areas currently used by the public, e.g. Black Mountain, Gudgenby.
- . Areas subject to increased use in the near future, e.g. Red Rocks Gorge.
- . Areas subject to withdrawal or change of lease.

#### 7.3.3 Vegetation Restoration

By replanting or regeneration.

##### 7.3.3.1 Priority

- . Disturbed areas adjacent to residential areas, e.g. Mt Taylor, the Pinnacle.
- . Disturbed areas along river corridors used by the public, e.g. Murrumbidgee between Point Hut and Pine Island.
- . Buffer zones adjacent to nature conservation areas, e.g. adjacent to Red Rocks Gorge, Gudgenby.

#### 7.3.4 Recreation Development

##### 7.3.4.1 Priority

- . Existing areas requiring upgrading because of increased demands, e.g. Black Mountain Peninsula, Kings Park.
- . Future areas to meet expected demand during the next decade, e.g. Winslade, Molonglo River (Coppins Crossing), Gudgenby River confluence, Pine Island South, Lanyon Woolshed Area.



### 7.3.5 Rural Landscape Protection Measures

Including replacement of farm trees, soil conservation, control of stock numbers, fencing.

#### 7.3.5.1 Priority

- . Key rural landscape areas visible from main roads, e.g. Bulgar Creek.
- . Areas subject to dieback or loss of trees because of overgrazing, e.g. Block 167 Stromlo.

### 7.3.6 Special Development

#### 7.3.6.1 Priority

- . National Capital works, e.g. Museum of Australia.
- . Tourist related development, e.g. Cuppacumbalong, Weston Creek tourist area.

### 7.3.7 Camping Areas

#### 7.3.7.1 Priority

- . Existing area improvements, e.g. Cottemouth.
- . New areas adjacent to existing riverside recreation areas, e.g. Pine Island.
- . New areas to meet future demand, e.g. Riverside (Gudgenby River), Sherwood Forest.

### 7.3.8 Hilltop Development

Including lookouts, picnic areas, facilities etc.

#### 7.3.8.1 Priority

- . Hills with road access, e.g. Mt. Ainslie.
- . Hills having high public interest and suitable for recreation use, e.g. the Pinnacle.

#### 7.3.9 Protection of Sites of Special Interest

Including historic, archaeological, ecological, geological sites.

##### 7.3.9.1 Priority

- . Major historic sites, e.g. Lanyon.
- . Sites currently in use or under threat, e.g. stone wall near Tuggeranong Creek.

#### 7.3.10 Trail System Development

##### 7.3.10.1 Priority

- . Trails connecting existing recreation areas and places of interest, e.g. Pine Island - Red Rocks Gorge trail.
- . Trails completing an existing system, e.g. Jerrabomberra Wetlands trail.

#### 7.3.11 Interpretation Facilities

##### 7.3.11.1 Priority

- . In areas currently in use, e.g. Black Mountain.
- . In areas being developed for nature conservation, e.g. Jerrabomberra Wetlands.

### 7.3.12 Commercial Concessions

#### 7.3.12.1 Priority

- . In heavily used areas, e.g. Regatta Point, Lake Burley Griffin ferry terminal.

### 7.3.13 Scenic and Recreation Access Roadworks

#### 7.3.13.1 Priority

- . Access to future recreation areas, e.g. to Winslade from Cotter Road.
- . Scenic drive giving access to future recreation areas along Murrumbidgee River, e.g. Pine Island to Point Hut.

### 7.3.14 Massed Exotics

#### 7.3.14.1 Priority

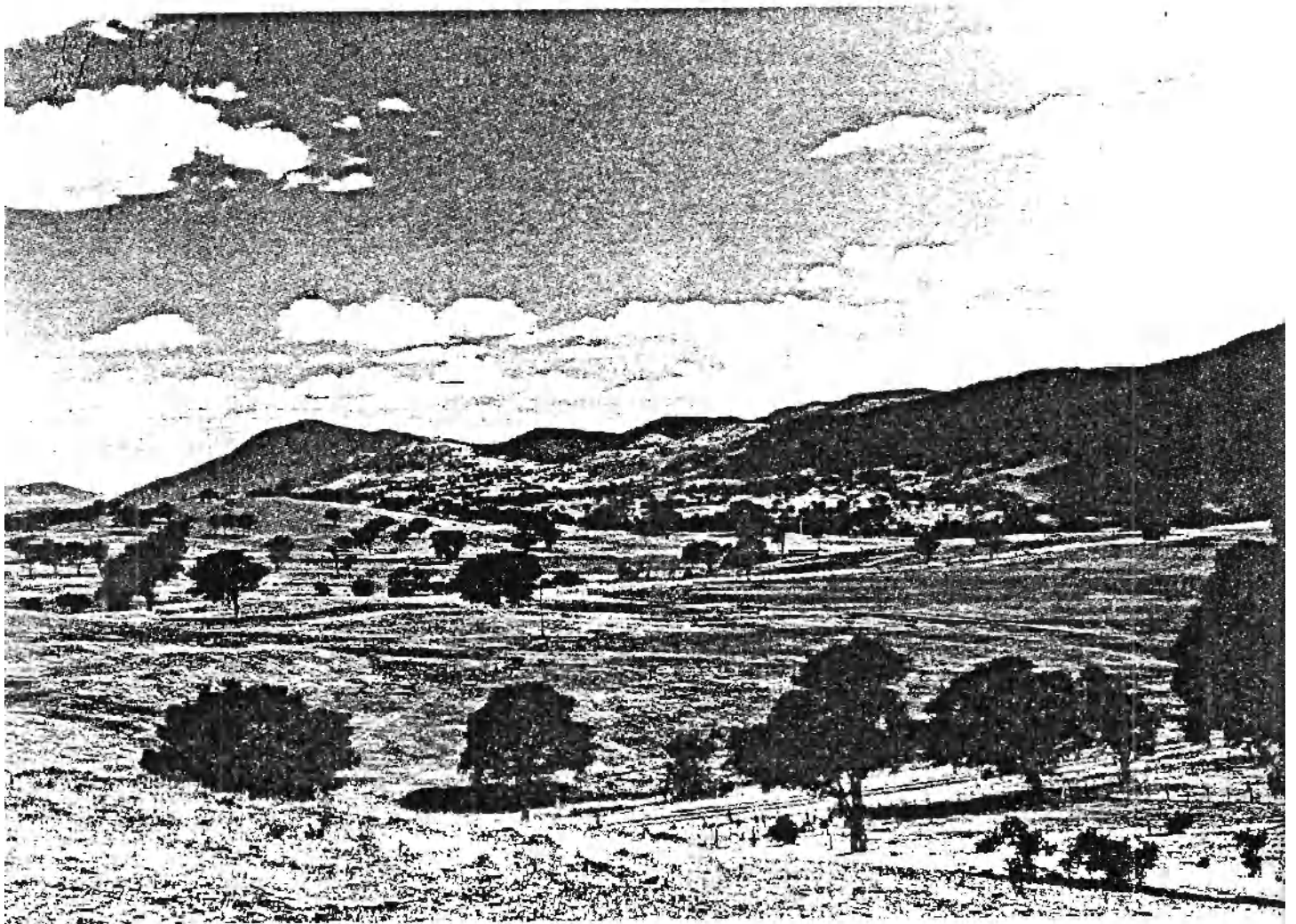
- . Areas of high visibility from main road system in which there is always a dominance of exotic species (e.g. Cotter Road from Lady Derman Drive to Stromlo Pines).



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## Chapter 8

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Pieter Arriens

Rural lands looking south to Mt Tennant<sup>e</sup>  
from Kambah<sup>Pool</sup> Road. Rural lease management  
with controlled grazing is to continue  
within and adjacent to river corridor and  
hill areas.

## 8.0 IMPLEMENTATION

### 8.1 Development Plans for Specific Areas

The policies presented in this report relate to the National Capital Open Space System as a whole or to components of it within the context of the whole system. To implement these policies in terms of physical planning, development and management, it is necessary to move to a more detailed level of planning. This has been done, for example, in the draft policy and development plans for the Murrumbidgee River corridor and for Lake Ginninderra and Ginninderra Creek.

The Commission, in collaboration with the Department of Territories and Local Government, intends to go through similar procedures for other areas of the National Capital Open Space System, for example:

- . Lake Burley Griffin
- . the Molonglo River Corridor
- . Gudgenby
- . the Cotter Catchment
- . hill areas (individually or collectively)

It is at this level that areas intended specifically for recreation, nature conservation, pine plantations, vegetation restoration, public utilities and other uses would be delineated in the Draft Policy Plan as well as sites being identified for recreational and other developments, and nature or heritage protection. Specific development proposals reflecting the policies would be presented in a Draft Development Plan. Following the public review of these policies and proposals and the formal adoption by the Commission of the Policy Plan and Development Plan for each area, implementation of the proposals would occur progressively depending on the available resources for development and management.

In accordance with Recommendation 50 of the White Committee the planning design and management of the National Capital Open Space System would be co-ordinated and would remain a Commonwealth responsibility in the advent of self-government. The above procedures for implementation would continue to apply.

## 8.2 Legislation

Part of the National Capital Open Space System is subject to legislation including:

- . Public Parks Ordinance 1928
- . Nature Conservation Ordinance 1980
- . Cotter Catchment Ordinance 1914
- . The Lakes Ordinance 1976

There may be a case for additional legislation to cover those areas of NCOSS which are not otherwise covered, in order to give greater strength to the management controls over the areas.

## 8.3 Management Plans

The policy plan for the National Capital Open Space System establishes the management objectives for DTLG. The achievement of these objectives may be facilitated through the preparation of management plans for specific areas to complement the policy and development plans. Such management plans are prepared by DTLG and address detailed management issues such as recreation management, wildlife and vegetation management, soil conservation, fire control and public interpretation and education.



#### 8.4 Monitoring

An important aspect of management which feeds back to the planning and design level is monitoring of the system in terms of the level of type of use made of it, the effectiveness and deficiencies in the areas and facilities provided and the policies of governing the use of these, the extent of land use conflicts and management problems, and other aspects which can provide a useful input into the ongoing planning and development of the open space system. In some cases, monitoring may lead to the progressive review of policy, development and management plans to make them more effective in achieving the objectives of the National Capital Open Space System.



## APPENDIX A

### BIBLIOGRAPHY OF PUBLICATIONS AND REPORTS ON THE INVESTIGATION AND PLANNING FOR THE NATIONAL CAPITAL OPEN SPACE SYSTEM AND RELATED MATTERS

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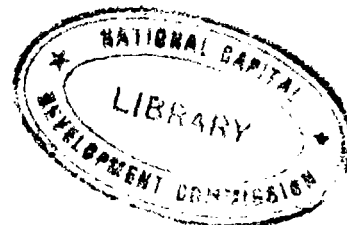
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