

# System 6

A "THOUGHT STARTER"

OR

INVITATION FOR SUBMISSIONS

EPA BULLETIN No. 22.

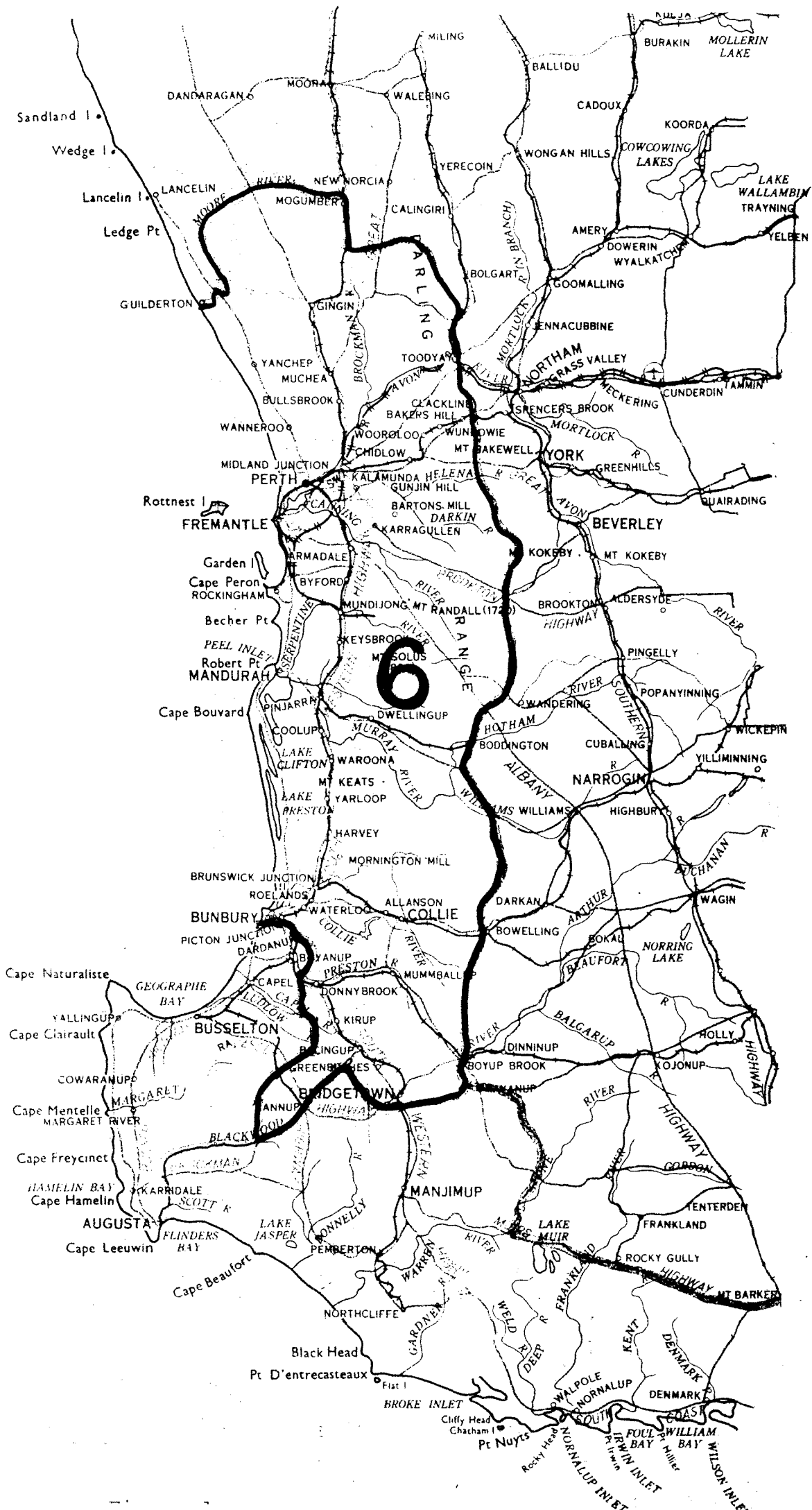


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ENVIRONMENTAL PROTECTION AUTHORITY

December 1976





# ENVIRONMENTAL PROTECTION AUTHORITY

BP HOUSE,  
1 MOUNT STREET, PERTH, WESTERN AUSTRALIA 6000  
Telephone 22 2477

Your Ref.

Our Ref.

## SYSTEM 6

This booklet has been prepared to enable you to join with the Environmental Protection Authority in the preparation of recommendations for national parks, nature reserves, and major associated recreational reserves in the area known as "System 6".

The booklet is for information only and is intended to serve as a "thought starter" to stimulate ideas and submissions. It should be considered only in this way.

Your submissions or comments will be welcomed as part of what will be an exciting - and challenging - study which will lead to recommendations by the EPA to the Government.

Yours sincerely,

Brian J. O'Brien  
CHAIRMAN

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1. PREAMBLE

This booklet is intended to be a "thought starter" for interested people and organisations to participate in the study of "System 6".

The booklet therefore contains in summary relevant philosophies of the Environmental Protection Authority which have evolved after deliberative technical study of national parks and nature reserves throughout Western Australia together with public comments thereon. It also contains excerpts from public comments about the desired future planning of System 6 with regard, in particular, to national parks, nature reserves and major associated recreational resources.

"System 6" is an area of land outlined in Figure 1 and extending from the Moore River to the Blackwood River and inland over the Darling Range.

It is the area in the State with the greatest competition for utilisation of land; therefore, if land is to be set aside for national parks, nature reserves and major associated recreational reserves it requires the most thorough study that has ever been undertaken in the State. In fact, with this booklet and with the invitation for you to comment thereon, this represents an opportunity unique in Australia for an essentially urban population to comment upon the environment in which they desire to live and in which they desire to have their children live.

The reason why it is called System 6 is quite simple. In 1972 the Environmental Protection Authority established a senior level Conservation Through Reserves Committee.

Its task was to make recommendations on national parks and nature reserves throughout Western Australia. It divided the State into 12 systems (see Figure 2) and subsequently reported late in 1974 on all of the State except the Kimberley and System 6. Its report, widely known as the "green book", was made available for public comment during 1975. The Environmental Protection Authority reviewed public comments and the "green book", and has made recommendations to Cabinet in two "red books", the first of which was made public after the State Government accepted 143 recommendations in February 1976. The second "red book" with regard to Systems 1, 2, 3 and 5 contained approximately 130 recommendations by the Environmental Protection Authority and these were accepted by Cabinet late in October 1976. (The recommendations on System 7, the Kimberley, will be made public early in 1977 and can be regarded as a natural follow-on from these earlier recommendations.)

*System 6, however, is something special.*

It therefore requires special treatment and a complete new organisational structure has been established to acquire and analyse relevant information and opinions. The committee structure is outlined in Appendix 1. Government departments will be represented at senior levels, together with representatives from industry, conservation groups, tertiary institutions and the public at large. The chairmen of the individual committees are senior people whose diverse interests and responsibilities reflect the complexity of the study itself.

Inherent in the statutory responsibilities of the EPA and in the recommendations that it will ultimately submit to Government will be a desire to reflect not just the technical aspects of conservation and environment but also community needs and desires.

2. YOUR ROLE IN SYSTEM 6

With the very rapid change in the style of modern living, with increased leisure time, increased mobility and yet increased stress there can be no denial that national parks, nature reserves and the like must play a major role in what is often called "the quality of life".

The need to set aside areas to conserve native flora and fauna which might otherwise be lost to the world has been stressed so often that it could be regarded essentially as axiomatic.

THERE IS A NEED FOR THE HUMAN POPULATION TO SEEK SOLACE IN NATURAL SURROUNDS. This can be partially accomplished by setting aside special reserves, but human nature being as it is there is a popular desire to have associated with many such reserves for community use amenities such as nearby roads, picnic sites, barbecues and the like. One of the essential features and paradoxical problems therefore is the management of an area in such a way that the amenities can be provided and usage maintained without destroying the very features of the natural environment which made the location attractive in the first instance. It is one of the functions of the System 6 Study to ensure that analysis of the relevant management problems is adequately completed.

In the System 6 Study it is the intention of the Environmental Protection Authority to take these and other factors into account. It must do so with due regard to conservation and scientific requirements as well as with what might be called sociological requirements. It can do so only with the assistance of considerable creative and positive ideas from the population at large who, after all, live in System 6.

THIS BOOKLET IS THEREFORE INTENDED AS A "THOUGHT STARTER" SO THAT YOU MAY SUBMIT TO THE SYSTEM 6 COMMITTEE YOUR IDEAS AND ASPIRATIONS AS TO WHAT IS REQUIRED AS REGARDS NATIONAL PARKS, NATURE RESERVES AND MAJOR ASSOCIATED RECREATIONAL RESOURCES IN THE SYSTEM 6 AREA.

### 3. CONSERVATION AND OTHER LAND USES

Because of the intensively competitive demand for land, water and other resources within the System 6 area, caused generally by the relatively intense "people density", the EPA has arranged a special new assessment procedure.

A complex system of committees with complementary terms of reference (Appendix 2) has been established so as to ensure that while the main thrust of the EPA's deliberations is still towards national parks and nature reserves the competitive land users are given an early opportunity to comment about their own needs and requirements. It is clear, for example, that while idealistically some conservationists would desire the entire Darling Range to be preserved in its native state (pre-European man), people want to live there, mining companies wish to extract bauxite and the Metropolitan Water Supply, Sewerage and Drainage Board desires to supply the community of Perth with fresh water. The committees established in this way by the EPA have a considerable degree of flexibility of operation, and they will be in a position to carefully consider and react to the public, i.e. your response to this booklet. The fact that at the invitation of the EPA very senior officers and officials of relevant organisations wished to join with the EPA in the System 6 Study is indicative of the potential for *total* planning in Western Australia - a potential which can and should be utilised.

After the individual committees, with a great deal of interaction and with the support of a strong secretariat, have evaluated public submissions and on the basis of their own deliberations the EPA expects to spend approximately six months in analysing the results, conferring as the need arises and ultimately through the Minister for Conservation and the Environment, submitting its recommendations to Cabinet in approximately August 1978. The following sections are included in this booklet for your information and for potential assistance to you in preparing any comments or submissions to the EPA on System 6.

4. THE ENVIRONMENTAL PROTECTION AUTHORITY  
PHILOSOPHY

After some three years of intensive deliberations and one year of public appraisal the EPA submitted to Cabinet two "red books" making recommendations for national parks and nature reserves, first in Systems 4, 8, 9, 10, 11 and 12 and second in Systems 1, 2, 3 and 5. Although these geographically dealt with very different areas there were elements of the EPA philosophy towards environmental management sufficiently general as to be represented in this booklet.

First and foremost the EPA regarded national parks as being for people and conservation reserves as being for native flora and fauna. These are to be regarded as top priorities in each case, but not necessarily mutually exclusive. Nevertheless it set the priorities for allocation of responsibility for management of the appropriate areas. In System 6 by virtue of the urban population density, national parks in the sense of "people usage" must rate highest priority.

The EPA has consistently maintained that there is opportunity in Western Australia for a balance to be achieved between conservation and development.

Equally the EPA advocated in its "red books" that there is no present need for forcible resumption of land in Western Australia for conservation purposes and it has taken a consistent stand against any "semblance of a land grab."

The EPA in its "red books" has advanced the case for the private individual to have free access to the facilities of the coastal zone. It maintains this approach. In fact the EPA regards it as essential that environmental management in Western Australia should take account of local rights of the professional fisherman and of the desire of the amateur fisherman and other recreational users to gain access to the coast. On the other hand it deplores the indiscriminate destruction of coastal foredunes by irresponsible persons using off-road vehicles.

The EPA set out in its second "red book" the need for management of ecosystems and the technical arguments advanced therein will not be repeated here, however in this pamphlet it is appropriate to draw to the public's attention the fact that however idealistic may be the desires for setting aside reserves of various types, someone has to bear the cost of their management and acquisition. That "someone" in the end, of course, is the taxpayer.

THEREFORE, IN SUBMISSIONS ON SYSTEM 6  
CONSERVATION IDEALISM SHOULD BE TEMPERED WITH FINANCIAL  
REALISM.



5. SYSTEM 6 - A SCIENTIFIC SYNOPSIS

The boundary of System 6 is shown in Figure 1. It extends from Guilderton and the Moore River in the north to the Blackwood River in the south and extends inland as far as Toodyay, Boddington and Boyup Brook.

There are two major land forms within the area - the coastal plain extending inland as far as the foot of the Darling Scarp, and the Darling Range which reaches its highest elevations slightly inland from the Scarp and which slopes gently down towards the Great Southern line on the inland side.

On the coastal plain there are occasional outcrops of coastal limestone but most of the area is covered with sand deposits and occasional swamps. In the Darling Range there are extensive deposits of laterite, often bauxitic, especially in the western half, with a change to more sandy soils inland. There are small exposures of bare granitic and doleritic rocks throughout the Darling Range and in the major river valleys which cut through the range on their way to the sea.

The coastal plain supports a banksia heathland with some relics of tuart forest - although this is not as well developed as the magnificent tuart forest near Ludlow and Busselton. The dominant vegetation in the Darling Range is mixed jarrah/marri forest in the wetter western areas with a marked change to wandoo woodland in the drier inland areas. The eastern boundary of System 6 is generally several kilometres inland of the edge of the forest and traverses an area which is largely land cleared for agriculture, especially cereal production and sheep grazing.

The catchments of major rivers already developed as surface water supplies lie within System 6. Examples are the Helena, dammed at Mundaring, the Canning, Serpentine and Collie Rivers. Others, such as the Murray and the Avon head beyond the System 6 boundary. On the coastal plain there are extensive bodies of groundwater of good quality.

Water is thus an important aspect of the natural resources of System 6. Its conservation, due to risks of salinity when vegetation is cleared is one of the highest priorities.

Although Perth is a large city in terms of the area it covers, it does nevertheless have representative examples of all land forms, soil types and vegetation zones which occur within System 6 relatively close at hand. There are therefore unique opportunities for future reservation within easy reach of the city.

Most of the population of Western Australia lives within System 6 - in the Perth Metropolitan Area in particular. Moreover, the current rate of population increase is greater in the capital than elsewhere in the State.

To date Perth has been relatively well served with pleasant areas of parkland and magnificent beaches close to the city. There have also been extensive areas of natural bushland on the coastal plain and in the Darling Range. However, with increased urbanisation and development of natural resources it is imperative that immediate action be taken to set aside sufficient reserves and national parks to meet the requirements of future generations.

The task is two-fold. First, we must ensure that there is adequate protection of native flora and fauna, including representation of different ecosystems such as the wetlands and coastal environments. Second, we must cater for the increased "people density" - in terms of industrial and agricultural development, urban development and provision for outdoor recreation.

In order to strike an acceptable balance between conservation on the one hand and development on the other, it is essential first to appreciate fully the present and potential competitive demands for land in System 6. These include:

- urban areas
- communication links (roads, power lines, etc.)
- agriculture, horticulture and market gardens
- timber production
- water catchment
- wetlands preservation
- mining
- conservation of flora and fauna
- recreational use, including national parks.

It is appropriate to point out that these uses are not necessarily mutually exclusive. In many cases it is quite acceptable to have multiple use of the land and in other cases consecutive use may be desirable.

All of the above factors and many others need to be considered in evaluation of System 6, however, it is worthwhile to isolate one particular aspect - namely "water catchment" - to indicate the paradox which continually confronts the EPA, i.e. between "utilisation" and "conservation".

There is no question that the future growth of Perth will be limited by the precious mineral water. Land of one form or another we have in plenty, but potable water is the vital mineral resource. Therefore the areas

that are catchments to fill the reservoirs to supply metropolitan Perth and indeed System 6 with potable water require careful management. One of the immediate questions which has been posed is whether portion of the catchment areas from which the public is presently excluded should be regarded as potential recreational resorts, or whether for technical hydrological reasons they must remain prohibited access areas. Another more extreme viewpoint, of course, would be that the actual reservoirs be open to water skiing, house boats and other human recreationally active pastimes. Contamination of the water supplies, and subsequent costly purification, might be a consequence.

Another aspect of System 6 which has received attention has been its role in timber production. Most of the Darling Range forests have been heavily logged for over a hundred years. Present dilemmas in forest management in System 6 include the relative role of softwood plantations, such as at Gnangara, fire control while permitting bush walking, and also jarrah die-back control. Perhaps the time is appropriate to review priorities between timber production, water supplies, recreation and other uses of the Range. This mixture of man-made and natural problems in forest management has been assessed in part by the EPA in its second "red book" but it requires further attention.

6. PRELIMINARY PUBLIC COMMENTS

The EPA advertised for preliminary public comments on System 6 in March 1976. Over 100 submissions have been received and these will, of course, be taken into account in detail in the evaluation by the various committees outlined in Figure 2.

In the sense that this booklet is intended to permit further public comment it is appropriate to quote various items from these submissions as "thought starters". These comments have been reproduced here with the permission of the authors.

(i) Darling Range Escarpment near Perth

There has already been much input on the scenic value of the Darling Scarp - especially near Perth. Some people suggest the creation of new reserves, others want the provision of scenic drives. One individual would like to see the development of a long distance "pathways" system through both public and privately owned land along the foothills to the south of Armadale.

(ii) Darling Range Forest

Several people have commented on the potential of the isolated hills and monadnocks within the Range - peaks such as Mt Dale, Mt Cooke and Mt Solus. The feeling seems to be one of reservation for passive recreation such as bushwalking and nature study rather than as "developed" areas. One interesting idea is the creation of a reserve several kilometres wide along either side of the Brookton Highway where it passes through the forest.

(iii) Lower Collie and Murray Rivers

Perhaps as a result of the anticipated use of these valleys for future damsites, there has been much comment on their potential as future reserves or national parks. They are seen not only as areas with unique flora and fauna, but also as having obvious recreational opportunities such as wild camping, fishing and canoeing.

Other comments refer to proposals for portions of System 6 being what is called an "English-style" national park, otherwise termed a multiple-owner multiple-usage national park.

It was also stated in another submission that: "The concept of scenic reserves or environmentally controlled development and management areas or English style National Parks is particularly valuable where it is desired to preserve large tracts of landscape, including man-made or cultural landscapes ...

The principal areas recommended for such treatment are the Darling Scarp especially in the vicinity of Perth and the Avon and Swan River Valleys".

" ... these proposals are prompted mainly by the desire to conserve the landscape surrounding Western Australia's capital city ... "

An interesting contribution from a school-boy states "With the growing shortage of petrol, more and more people will be seeking recreation close at home and W.A. should plan to have the same great ring of national parks which at present surround Sydney."

The public comments received to date have been extremely valuable. With the permission of the contributors, examples may be seen in the Reading Room of the Department of Conservation and Environment, Ground Floor, BP House, 1 Mount Street, Perth for perusal by those who desire to actively participate further in the System 6 Study.

7. CONCLUSION

This "miniature green book" is intended to serve as no more than an introduction to the problems and paradoxes that confront the EPA in making recommendations with regard to System 6. The EPA is a three-man Authority. You as a community represent proportionately major users or potential users of national parks, nature reserves and major associated recreational facilities within System 6. Your opinions are therefore sought.

The EPA has made arrangements so that your opinions and your submissions will be fully taken into account by the System 6 Committee.

The System 6 Study is not only an exciting one, it is one which gives to the community at large an opportunity for active participation in forward planning. The scope of the ultimate recommendations by EPA will be a reflection of the interest, the knowledge and the concern of the community at large as to the future of System 6.

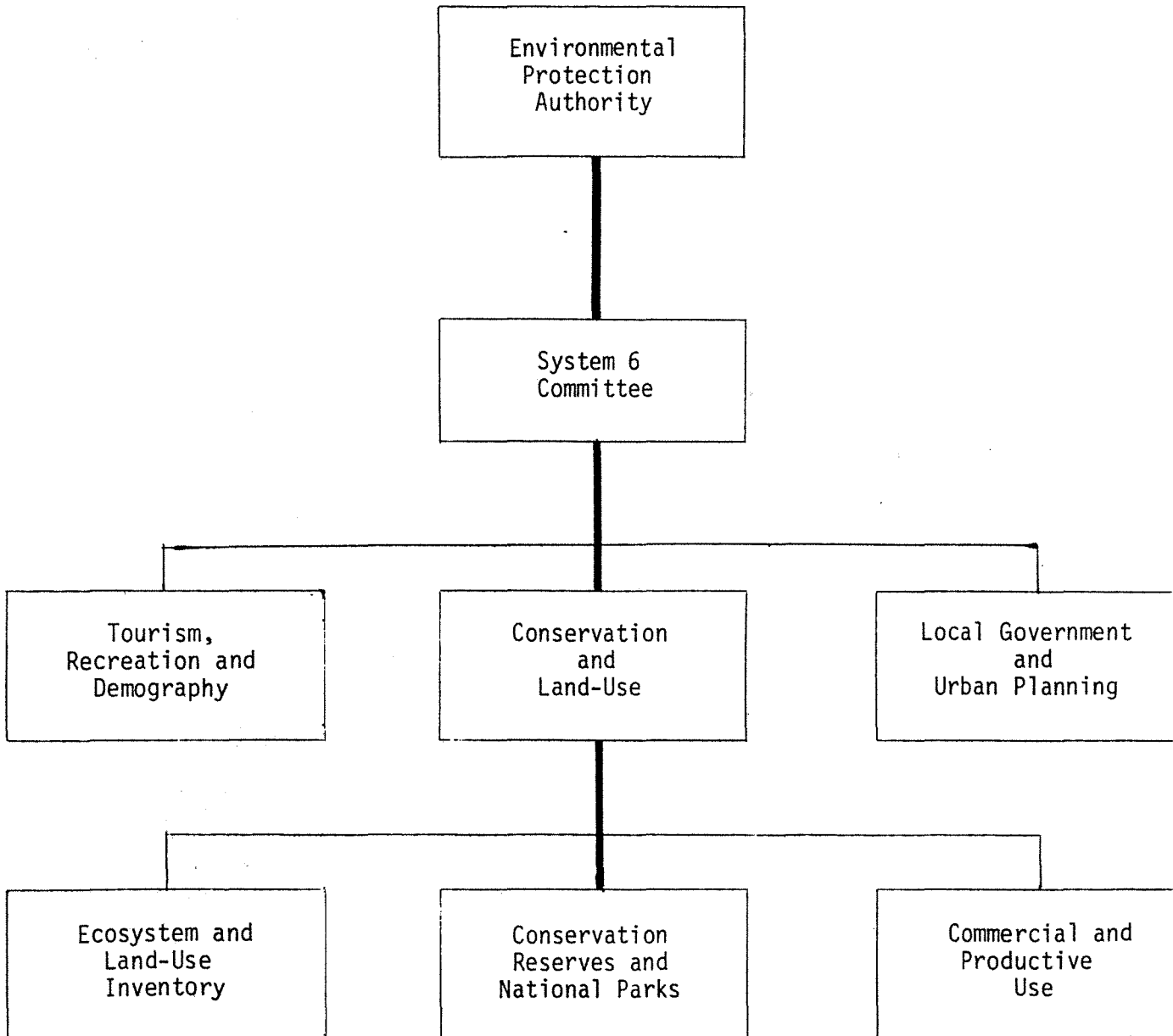
SUBMISSIONS AND COMMENTS SHOULD BE  
SENT BY 31 MAY, 1977 TO:

The System 6 Committee,  
Department of Conservation  
and Environment,  
BP House, 1 Mount Street,  
PERTH W.A. 6000

PLEASE INDICATE WHETHER YOU WISH YOUR  
SUBMISSION TO BE CONFIDENTIAL, IN  
WHOLE OR IN PART.

ORGANISATION CHART

SYSTEM 6





## SYSTEM 6

## TERMS OF REFERENCE FOR COMMITTEES

## 1. SYSTEM 6 COMMITTEE

To receive technical reports from the lower committees and, having regard to present and likely future developments, to make recommendations to the Environmental Protection Authority on :-

- (i) areas within System 6 desirable for national parks, nature reserves and major associated recreational resources;
- (ii) related matters in and near the area delineated as System 6.

## 2.1 CONSERVATION AND LAND-USE COMMITTEE

To develop for consideration by the System 6 Committee proposals for areas that should be set aside as national parks and nature reserves in System 6 taking account of :-

- (i) the natural ecosystems themselves, their characteristics and management requirements;
- (ii) the demands on the land for commercial and other production, development and public services where these interact or may interact with proposals for reservation.

2.1.1 Ecosystem and Land-Use Inventory Committee

To systematically assemble and report on information relevant to the identification of areas suitable for present or future reservation as national parks, nature reserves and associated recreational resource areas, taking cognisance of :-

- (i) existing information on the nature and extent of the principal natural ecosystems, sub-systems and physiographic domains within the area known as System 6;
- (ii) other relevant information such as shire and council administrative boundaries, existing patterns of land use, water supply catchment areas, State and private forests, mining leases and tenements, lines of communication, etc.

### 2.1.2 Conservation Reserves and National Parks Committee

To report to the Conservation and Land-Use Committee on existing and required conservation reserves and national parks generally, taking account of :-

- (i) the EPA policies and philosophies expressed particularly in the Preamble to the two "red books";
- (ii) public and other submissions received during the course of the System 6 Study;
- (iii) information and comments derived from the Ecosystem and Land-Use Inventory Committee and the Commercial and Productive Use Committee.

### 2.1.3 Commercial and Productive Use Committee

To report to the Conservation and Land-Use Committee and to provide information for the Conservation Reserves and National Parks Committee which will :-

- (i) ensure that land-use and potential land-use alternatives to reservation are considered at appropriate times;
- (ii) attempt to evaluate the degree of compatibility between apparently conflicting land-uses;
- (iii) ensure in their deliberations that the interests of State and Local Government instrumentalities, institutions and the private sector concerned with land-use are taken into account;
- (iv) devise procedures which will ensure early planning for rehabilitation to be undertaken at the cessation of commercial exploitation, or following exploitation of short duration, where such rehabilitation is in the interests of conservation, national parks and associated recreational resources;
- (v) arrange economic analyses of proposals referred to it for that purpose by the Conservation and Land-Use Committee.

2.2 TOURISM, RECREATION AND DEMOGRAPHY COMMITTEE

To develop for consideration by the System 6 Committee :-

- (i) an assessment of the present tourism and recreation facilities in System 6 and their utilisation, and likely additional needs, taking into account the requirements of residents and tourists;
- (ii) forecasts through the year 2000 of the consequential demands for such facilities associated with tourism and recreation in all their forms taking into account envisaged changes of life-style such as the duration of the working week, the increased mobility of the population, the age of retirement and other facets of the quality of life.

2.3 LOCAL GOVERNMENT AND URBAN PLANNING COMMITTEE

(1) To develop for consideration by the System 6 Committee :-

- (i) an assessment of the present reserves set aside as regional or public open space, the extent and manner in which these are being presently used and make recommendations about modifications in use and developments thereof for the near future;
- (ii) forecasts through the year 2000 of the consequential demands for facilities of this type, taking into account envisaged changes of life-style such as the duration of the working week, the increased mobility of the population, the age of retirement and other facets of the quality of life;
- (iii) an assessment of the extent to which Local Government might play an active part in selection, management and maintenance of reserve areas including financial contributions in cash or in kind;

(2) To draw up for the System 6 Committee a plan for implementing the EPA recommendation to the Minister for Local Government, that "he considers ways and means by which Local Government authorities can appoint for liaison with the appropriate Government Departments professional reserve advisory officers in the same way as the Local Government authorities appoint, for example, health surveyors."

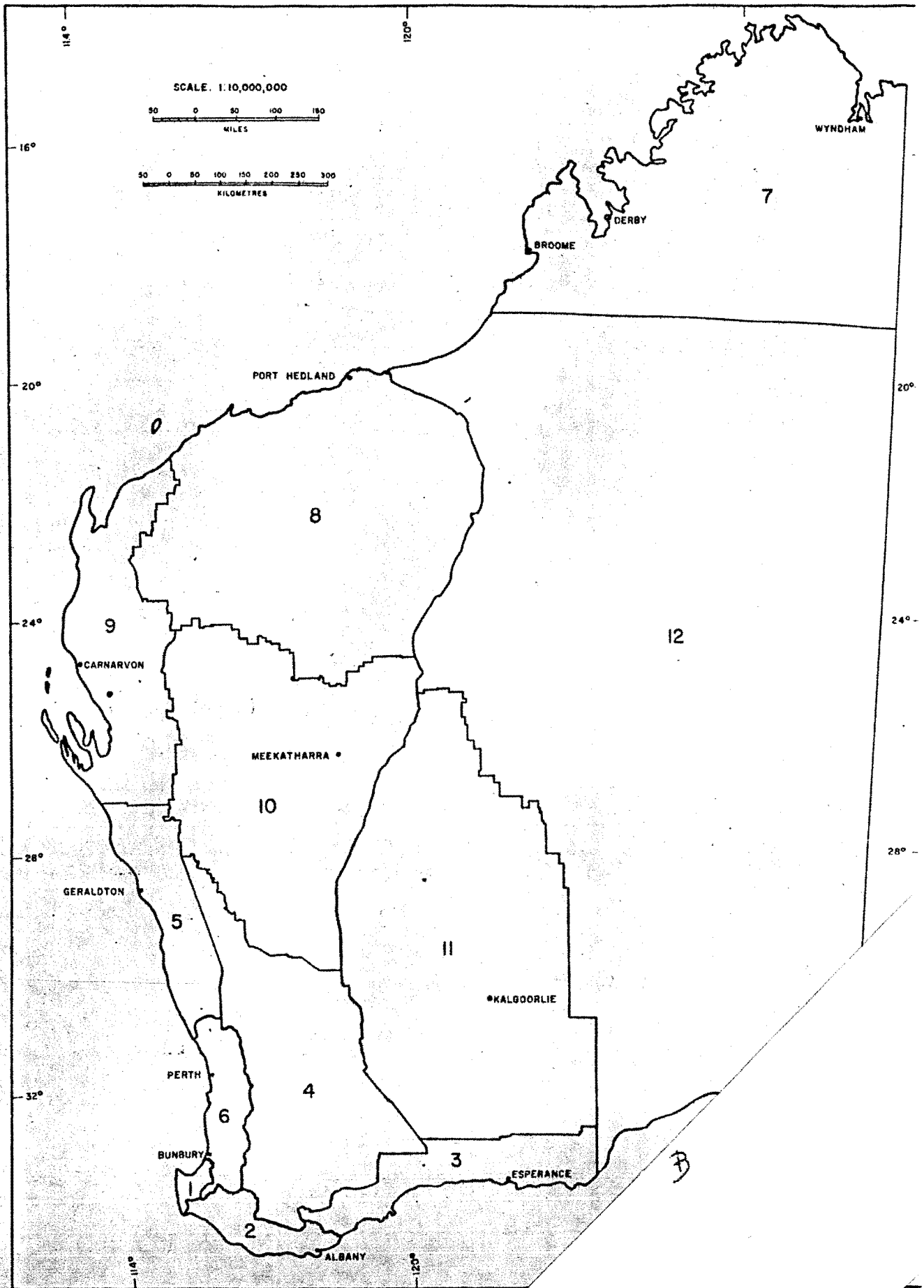


Figure 2