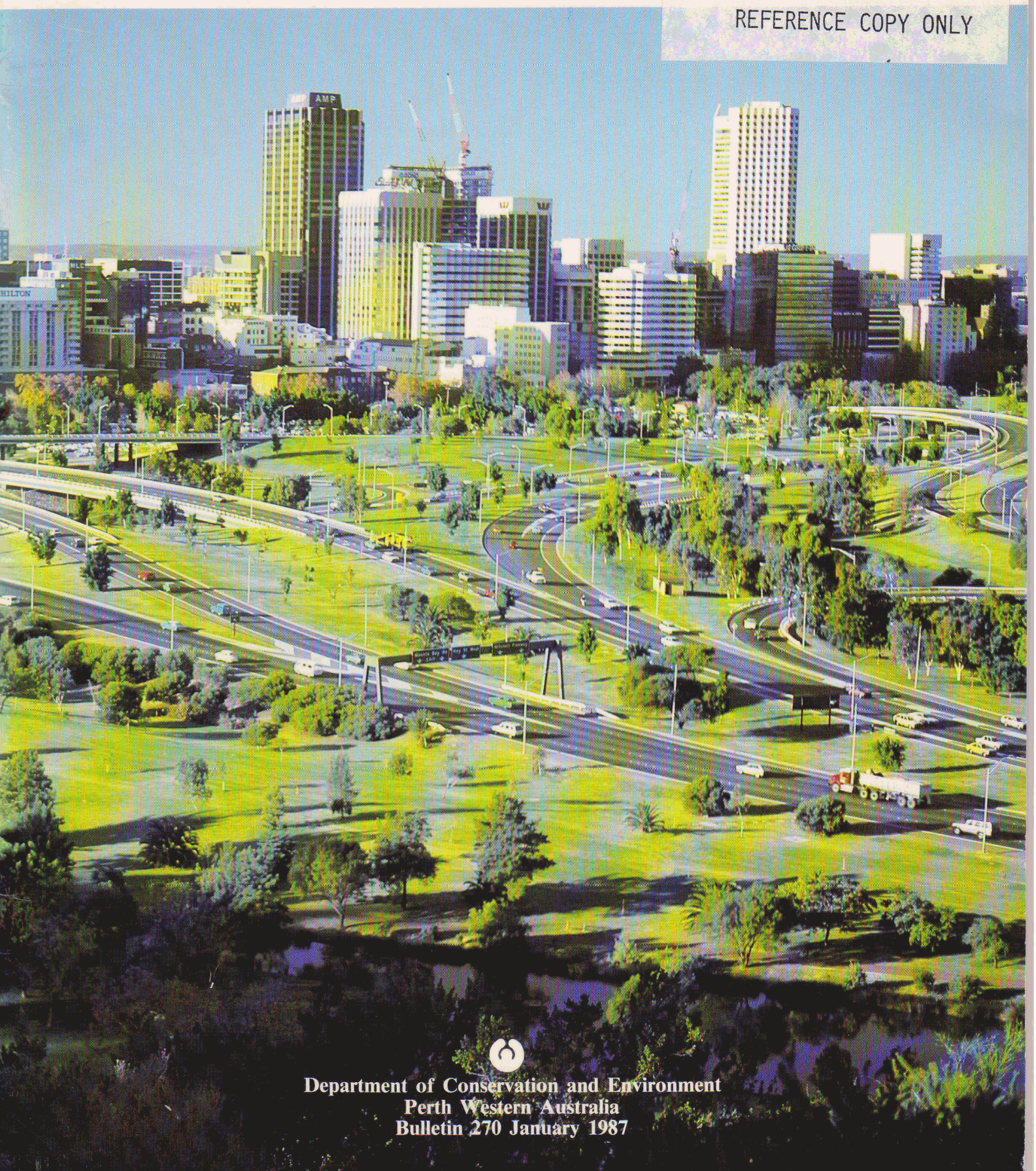
A State Conservation Strategy for Western Australia



Department of Conservation and Environment
Perth Western Australia
Bulletin 270 January 1987

R. Sippe
Dept of Environment

A State Conservation Strategy for Western Australia

A sense of direction

Prepared by the SCSWA Consultative Committee in association with the Department of Conservation and Environment.

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Bulletin 270 January 1987

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STATE CONSERVATION STRATEGY FOR WESTERN AUSTRALIA

After many months of widely ranging discussions, particularly within a broadly representative Consultative Committee drawn from 29 organisations in industry, conservation bodies and government agencies, the State Conservation Strategy for Western Australia has been agreed as a consensus statement.

The State Government endorsed the theme of this Strategy in February 1987 and designated the Environmental Protection Authority as the lead agency responsible for its implementation.

As this State Conservation Strategy has been framed within the context of the already endorsed National Conservation Strategy for Australia, they should be considered together and applied locally in an integrated way.

The EPA is now planning towards the progressive implementation of the Strategy directions. Clearly, this framework affords challenging scope for further developing, communicating and applying the concepts now adopted in principle.

We hope to involve the community as widely as possible in this long-term process.

B A CARBON
CHAIRMAN, EPA

Front Cover: R.G Chittleborough
Back Cover: Bush Fires Board

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FOREWORD

In February 1985, when endorsing the National Conservation Strategy for Australia, State Cabinet made a commitment to prepare a State Conservation Strategy specific to the needs of this State, developed within the framework of the National Strategy.

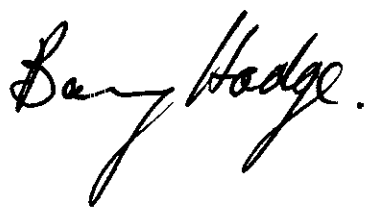
A Consultative Committee drawn from a very broad range of government departments, industry and conservation groups has worked hard over many months to shape long-term directions required to put into effect the concepts of sustainability and optimising the quality of life, upon which the National Strategy is based.

The State Conservation Strategy challenges us not only to redress the errors of the past, but also to focus on the causes as well as the symptoms of environmental problems. By doing so, we will retain the widest options for the future.

The Consultative Committee is to be congratulated on achieving consensus on this document.

The Government endorses the general principles upon which this Strategy is based, reflecting an extension of those already supported in the National Conservation Strategy for Australia.

I commend the document to all Western Australians as thought provoking material deserving careful and objective attention.



MINISTER FOR THE ENVIRONMENT

1. INTRODUCTION

As a consequence of the recommendation by the World Conservation Strategy[1] that national and regional strategies be developed, a National Conservation Strategy for Australia[2] was produced in 1983. Endorsed by the WA Government in February 1985, the National Strategy committed Western Australia to the objectives, principles and major goals set out for sustainable development and living resource conservation in Australia as a whole.

The World and National Conservation Strategies specify the general directions that are required. In developing regional strategies, however, there is a necessity to be more specific on local needs. When endorsing the NCSA in principle, Cabinet recognised that Western Australia has distinctive landscapes and ecosystems, as well as its own community needs and aspirations, and so moved to develop within the framework of the NCSA, a State strategy specific to its circumstances.

The purpose of this document is to identify long-term directions in which our community might move over the next two or three decades. In this first step it is important to shape a sense of direction; once this is accepted, it will be possible for the community to determine the actions and steps by which these goals may be achieved.

In this process, we recognise that since European settlement our community has progressed from the pioneering attitude of overcoming a harsh environment, to a desire to live at one with it. It is increasingly recognised that the community is a *part of* the environment which must continue to function as a healthy whole if we are to achieve a high quality of life that is sustainable.

This document examines the current state of the Western Australian environment to assess where we are now, before considering where we might head next. However, when looking 20 to 30 years ahead, approaches which may have given us so many benefits and a high quality of life in the past, may not continue to be as beneficial in the future. The development of resources and use of our environment will have to be carefully planned and managed to ensure sustainability.

This Strategy has been prepared by a Consultative Committee drawn from a wide range of interest groups, supported by a small core group within the Department of Conservation and Environment (Appendix 1)

Photo: Stuart Chape

2. DEFINITIONS

The interdependence of living resource conservation and sustainable development is emphasised in the definitions adopted for the National Conservation Strategy for Australia, from the World Conservation Strategy:

> *Conservation* is . . . . "The management of human use of the biosphere so that it may yield the greatest sustainable benefit to present generations while maintaining its potential to meet the needs and aspirations of future generations. Thus conservation is positive, embracing preservation, maintenance, sustainable utilization, restoration, and enhancement of the natural environment. Living resource conservation is specifically concerned with plants, animals and microorganisms, and with those non-living elements of the environment on which they depend. Living resources have two important properties the combination of which distinguishes them from non-living resources: they are renewable if conserved; and they are destructible if not".
>
> (WCS 1980, section 1.4)

> *Development* is . . . . "the modification of the biosphere and the application of human, financial, living and non-living resources to satisfy human needs and improve the quality of human life. For development to be sustainable it must take account of social and ecological factors, as well as economic ones; of the living and non-living resource base; and of the long term as well as the short term advantages and disadvantages of alternate actions".
>
> (WCS 1980, section 1.3)

> *Environment*, as defined in the Western Australian Environmental Protection Bill 1986, "means living things, their physical, biological and social surroundings, and interactions between all of these". For the purposes of this definition of environment, "the social surroundings of man are his aesthetic, cultural, economic and social surroundings to the extent that those surroundings directly affect or are affected by his physical or biological surroundings".

3. OBJECTIVES

Western Australia is committed to the objectives of the NCSA to ensure a sustainable environment. The three main objectives of *living resource conservation* identified in the World Conservation Strategy which have been adopted for Australia as a whole are:

* *to maintain essential ecological processes and life-support systems;*
* *to preserve genetic diversity;*
* *to ensure the sustainable utilisation of species and ecosystems.*

(WCS 1980, section 1.7)

An additional objective important for Australia is:

* *to maintain and enhance environmental qualities.*

(NCSA 1984, section 18)

The objectives amplified in the NCSA also place the role of sustainable development into the context of these objectives in the following ways:

- provide for the essential needs of individuals and society;
- generate economic wealth which enables the community to enhance its standard of living and to pursue educational, cultural and recreational interests;
- provide economic capacity which helps society to practise resource conservation which in turn enables sustainable development;

(NCSA 1984, section 19)

- recognise the importance of the State's role as a reliable supplier of food and resources to world markets; consistent with other objectives this can provide opportunities to minimise environmental degradation and facilitate global strategies for sustainable development.

(NCSA 1984, section 21)

In applying these objectives the NCSA recognises:

- implementation of the Strategy must have regard for the general economic climate, which has an important bearing upon the speed with which the Strategy can be implemented;
- the inability of Australia, including Western Australia, to isolate itself from the world economic system;
- a proper accounting is required of the costs and benefits to society.

(NCSA 1984, section 20)

Photo: Richard Woldendorp

For Western Australia a further objective is:

* *to optimise the quality of life for Western Australians.*

Quality of Life refers to the degree to which a sense of well-being and fulfilment is experienced by each member of the community Given the diversity of people's values and expectations, it is a personal and highly complex concept which defies precise measurement

The key characteristics of the concept are:

- social, cultural, environmental and aesthetic values as well as economic factors contribute;
- community assets, including those provided by the environment, may be valued differently from their monetary value; and
- distribution and stewardship of assets amongst the current and future generations are considered.

4. PRINCIPLES

The principles accepted under the NCSA to guide towards achieving the objectives are:

* *Integrate conservation and development,*
* *Retain options for future use,*
* *Focus on causes as well as symptoms,*
* *Accumulate knowledge for future application,*
* *Educate the community.*

(NCSA 1984, section 24)

A further principle considered important for Western Australia is to:

* *Recognise community aspirations and the need for involvement in the planning process.*

To achieve sustainability and optimise the quality of life, strategic planning must be in the widest sense, instead of a prescription for the protection of flora, fauna, soils and waters. In accepting responsibility for the direction of development, our community must share the costs and the benefits.

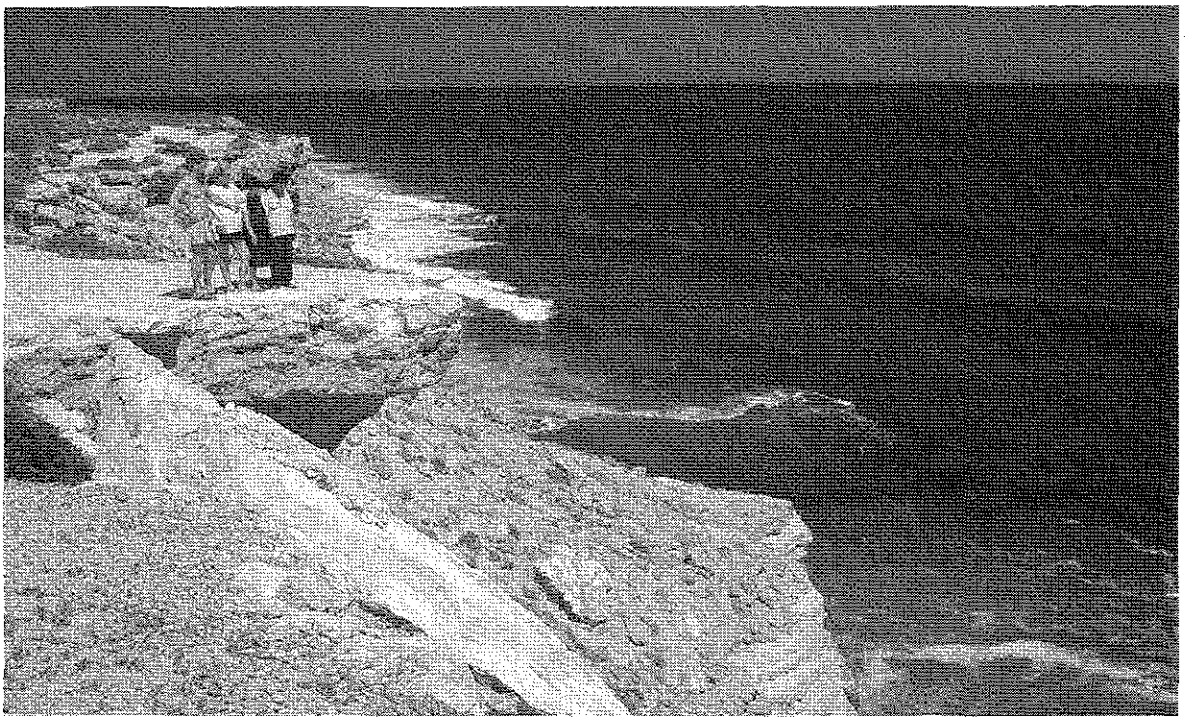


Photo: Cliff Winfield/Department of Conservation and Land Management

5. STATE OF THE ENVIRONMENT

Western Australia's relatively small population lives in a varied environment of limited carrying capacity. The climate is Mediterranean in the South West, with wet winters and hot dry summers; in the North it is tropical with mild winters and cyclonic summers. Over most of the State arid and semi-arid conditions prevail, with erratic rainfall and drought. Western Australia's lands are largely salt prone and of very low fertility. Nevertheless, the State is richly endowed with plants and animals well adapted to these conditions. Many species are endemic, particularly within the South West region. While of high diversity and appeal, some natural ecosystems in Western Australia are very fragile.

Major land uses such as grazing, agriculture, urbanisation and industrial development are diminishing species diversity throughout the State; in some localities essential ecological processes continue to be disrupted. In the wheatbelt approximately 60 per cent of the species of medium sized mammals have disappeared since European settlement.[3] From more than 7 000 native vascular plant species recorded in Western Australia[4], 1 024 species are listed as rare or threatened, 83 per cent of these being from the South West.[5] It is unclear whether the rate of extinction has changed: for some groups it may have decreased in the last 20 to 30 years. However, in most groups of plants and animals, the numbers of some rare species are still declining and discrete populations are still being lost.

Wildlife conservation is achieved essentially through the protection and maintenance of habitat. National Parks and Nature Reserves established throughout the State make an important contribution toward this objective. More recently steps have been taken to designate marine parks and reserves along the coast. Considerable progress has been made for wildlife conservation in Western Australia, although further effort is required to protect our full range of ecosystems and wildlife. The conservation values of lands outside formally dedicated parks and reserves also need recognition and safeguarding.

Introduced species of fauna compete with native animals for food, habitat or breeding sites, while exotic plants compete with native flora across much of the State. Increased availability of water has enabled a rise in the population of some species of both introduced and native fauna. In some areas of Western Australia this is of environmental concern.

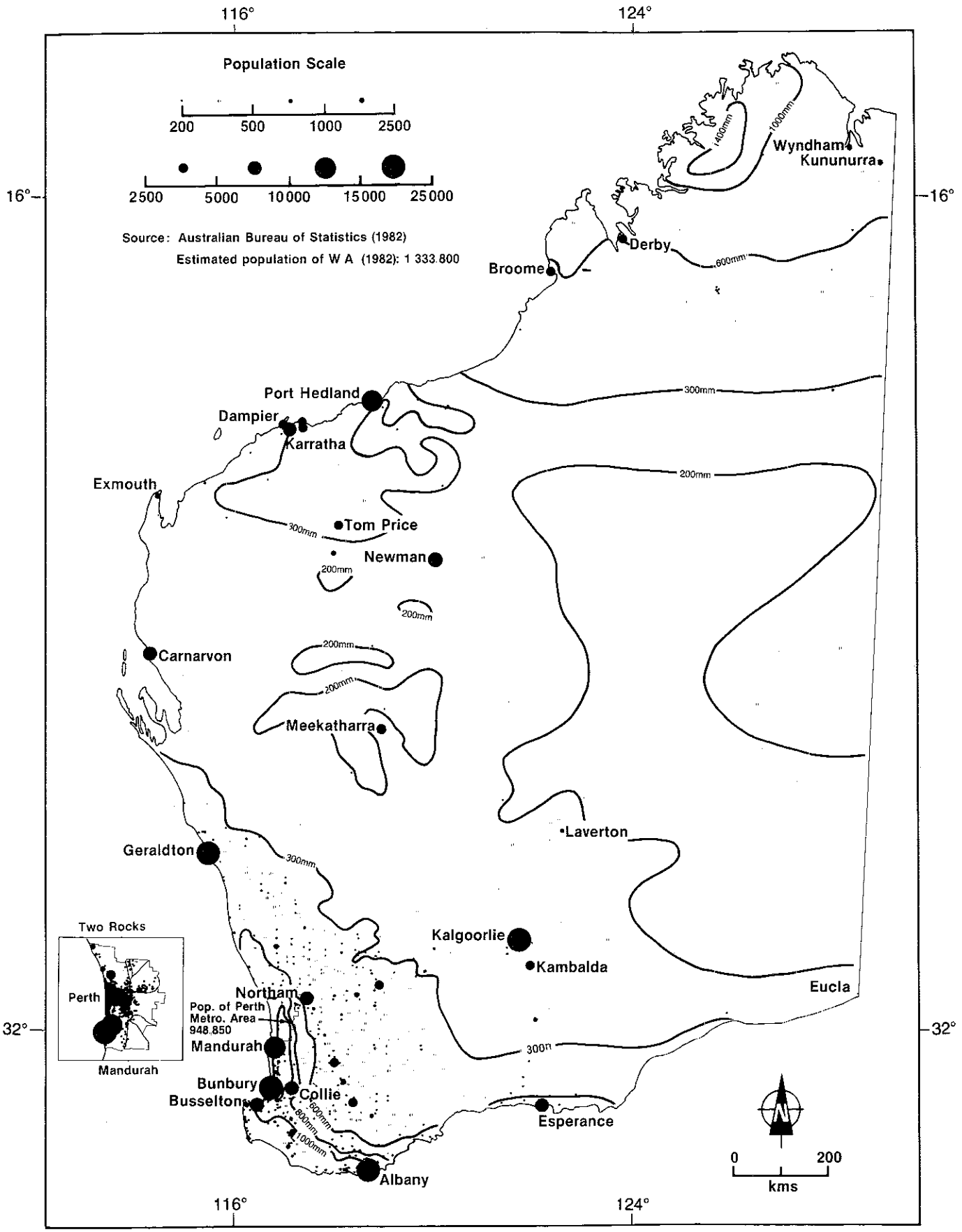


Figure 1 Population distribution and rainfall in Western Australia

The forests of Western Australia have a rich assemblage of flora and fauna but are generally identified by the two principal commercial species, karri and jarrah. Management of the karri forest is moving towards sustained yield; the situation with jarrah is less clear. The issues of clearfelling and the export of woodchips require further attention. Hardwood timber resources in the State's forest are insufficient to meet local demand so that Western Australia is a net importer of timber. There is growing pressure for both hard and soft wood plantations to be located on under-utilised agricultural land to relieve demands on native forests.

Jarrah dieback (*Phytophthora cinnamomi*) has affected some 13 per cent of jarrah forest.[4] Within State Forest, hygiene and other management procedures are considered effective in substantially reducing the spread and impact of the disease. However, activities within State Forest, National Parks and other areas in the South West, which have been shown to spread dieback, continue to be of major concern due to the potential of the disease to destroy entire populations of endemic species.[6]

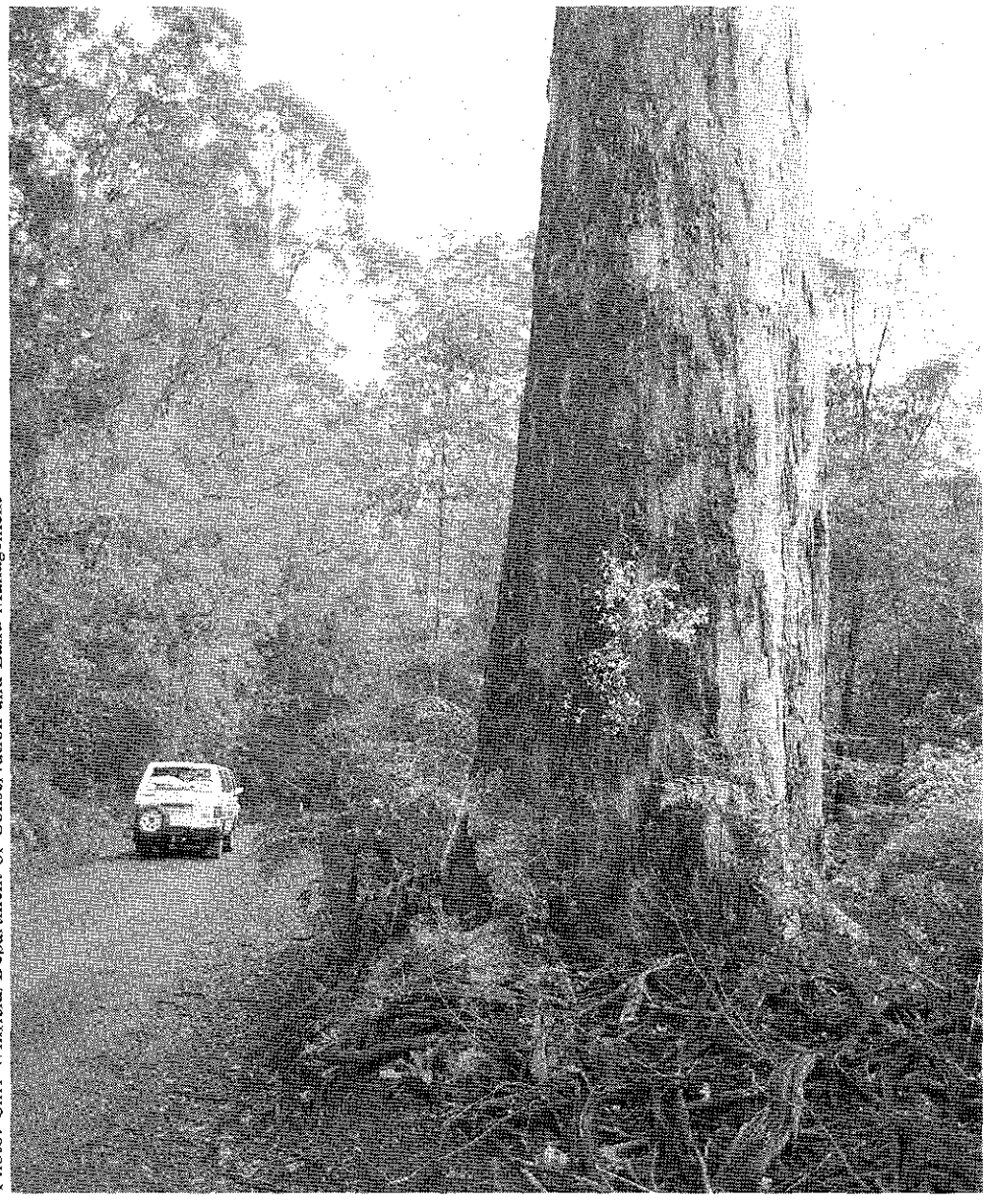


Photo: Cliff Winfield/Department of Conservation and Land Management

Farming practices such as the introduction of legumes and the addition of trace elements have greatly increased productivity of some agricultural lands. However, only 30 per cent of land cleared for agriculture can be regarded as stable.[7] Despite improved awareness and success in specific cases, such as stabilisation of wind erosion in the north east wheatbelt, soil degradation is a continuing problem for much of Western Australia.

Approximately 23 per cent of pastoral lands in Western Australia are in bad condition. Loss of vegetation and soil erosion in these areas has been caused by the grazing pressure of stock, as well as feral and native fauna to varying degrees. Sound rangeland management involves controlling stocking rates and the populations of feral animals, along with regeneration programmes.

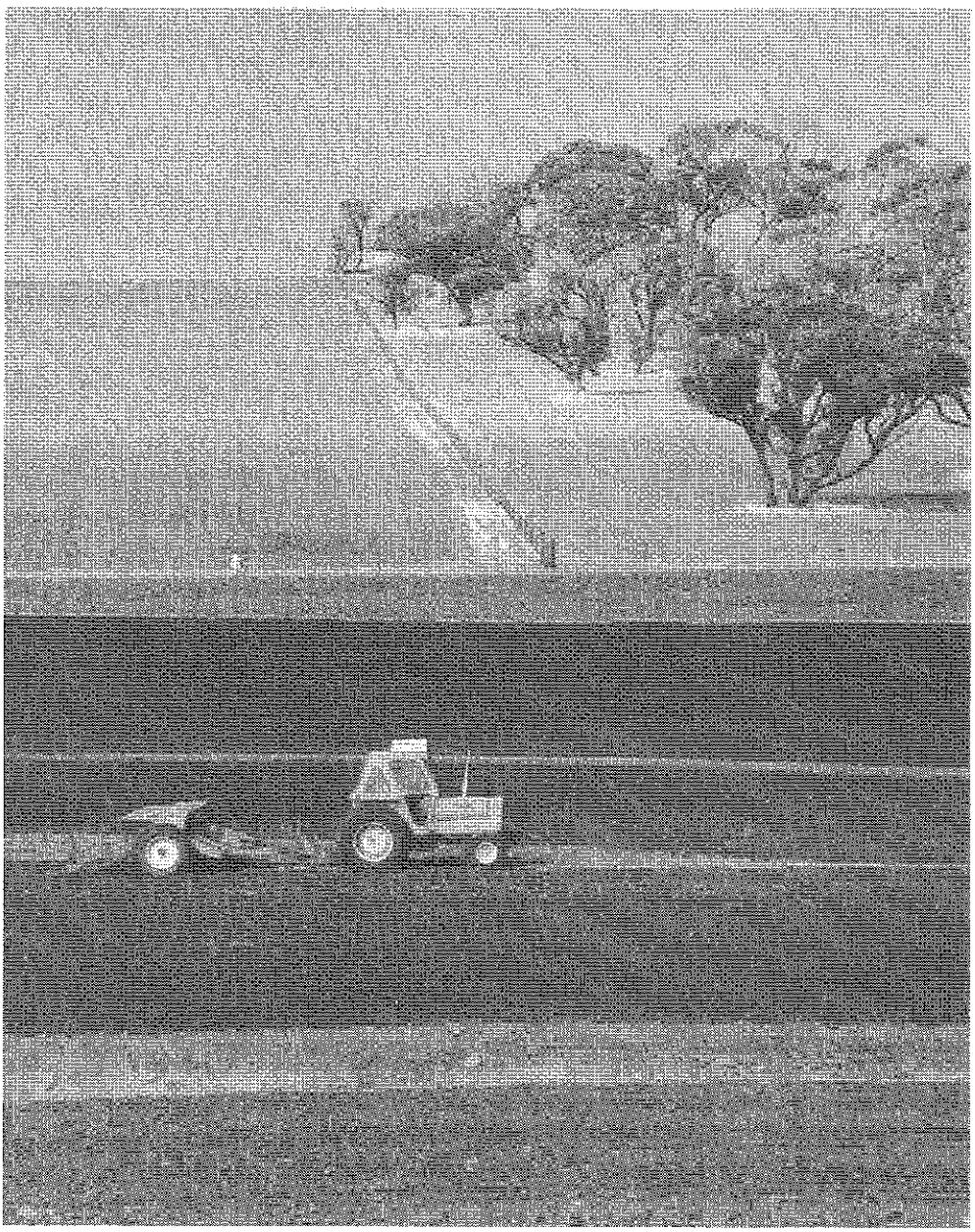


Photo: S. Eyres/Department of Agriculture

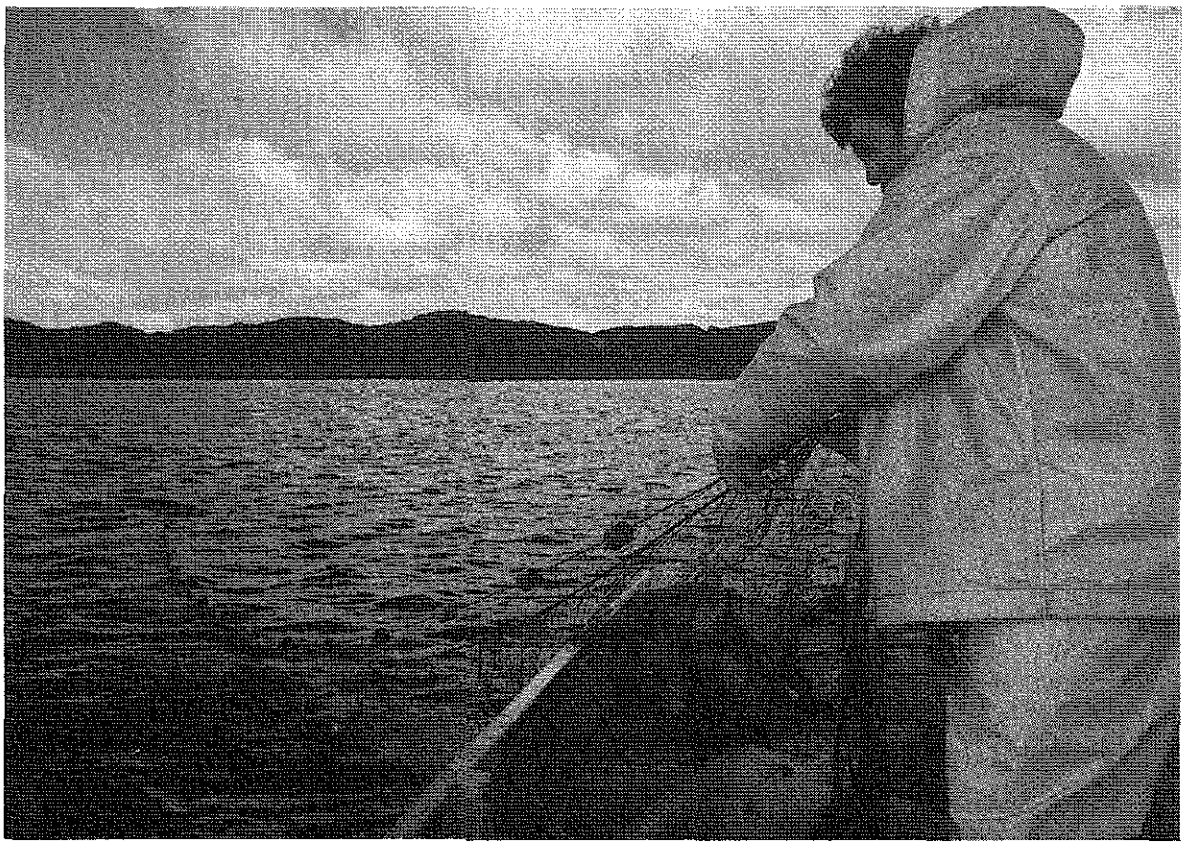
Availability of water resources has been and will continue to be a major determinant in the geographic pattern of settlement in Western Australia. In the Perth-Mandurah region the community's needs for water are met by a combination of surface storage (approximately 40 per cent) and groundwater resources (60 per cent).[8] Currently one half of the region's water resources are allocated. Natural aquifers have provided the main source of water in the North, while people living in more arid areas rely on small localised groundwater occurrences. Groundwater resources are often linked to valuable wetlands. The community has to recognise the need for managing these limited resources on a sustainable basis.

Widespread salinisation of streams in the South West due to clearing of native vegetation in catchments has caused ecological damage and led to a loss of 36 per cent of the estimated original fresh water resources.[4] Progress is being made in stabilising selected catchments, but no significant advances have been made in rehabilitating seriously degraded catchments.

The addition to rivers of erosion sediments has caused widespread changes to aquatic ecosystems in Western Australia. For example, it was estimated that the Ord River was carrying up to 20 million tonnes of sediment per annum. While a major range regeneration programme has been largely successful in reducing the silt load, the problem is still significant. Silting is a common problem in rivers as far south as the Avon River but the extent of the problem has still to be fully defined. This process is of environmental concern, and also represents a loss of resources to landholders in affected catchments.

Leaching and run-off of fertilizers from agricultural land on the coastal plain is an increasing problem leading to pollution of estuaries and wetlands in the South West. Nutrient enrichment affects many water bodies in this region including Wilson Inlet, Oyster Harbour and particularly the Peel Inlet. Remedial measures will be problematic and expensive.[9]

Western Australia's coastal waters, though generally low in nutrients and hence productivity, support valuable commercial fisheries. Most of the commercial fish resources are already fully utilised, with the major fisheries being over-capitalised. Measures to control the level of fishing intensity include limiting fishing licences, gear restrictions, minimum sizes, quotas and the proclamation of fishing seasons and zones. While these measures have had some success, there is still a need to reduce the number of units fishing.



Beaches along the Western Australian coastline are used extensively by the community. The coastal zone in many places is fragile and easily damaged by human use Consequently, access to and development of these natural systems must be carefully managed to avoid serious environmental damage. The long term prospect of rising sea level warrants attention in future planning of coastal use.[10]

Mining occurs throughout Western Australia, impacting to varying degrees on a range of natural environments. These impacts are now being lessened by the increasing application of environmental management principles and controls.

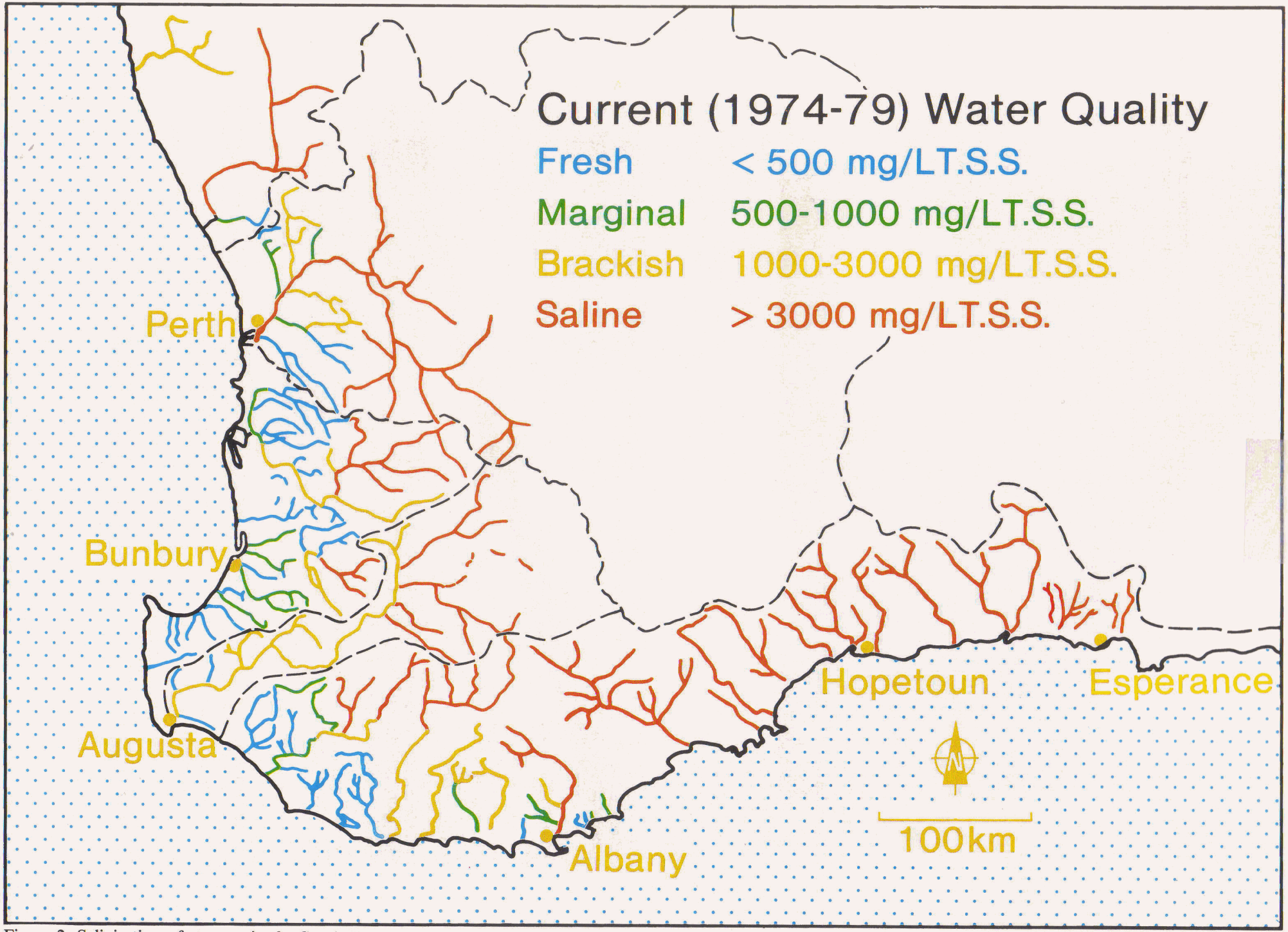


Figure 2. Salinisation of streams in the South West

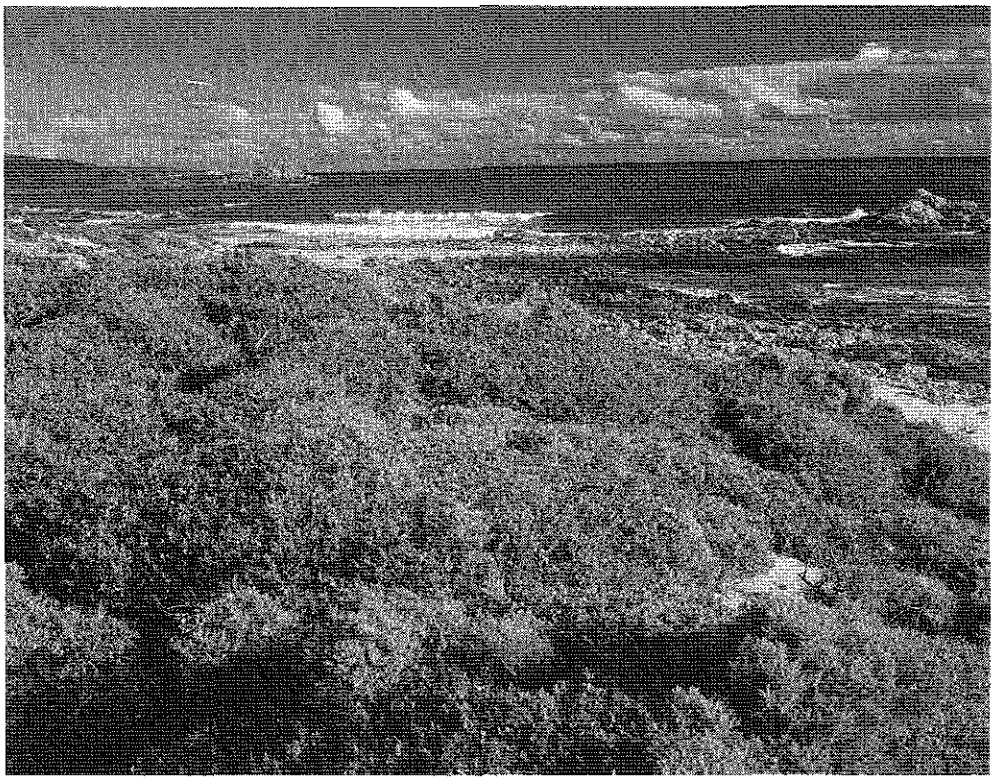


Photo: Stuart Chape

Generally, air quality in Western Australia is excellent although localised problems occur due to burning of fossil fuels containing sulphur and from smelting and roasting operations.[4] Dust problems also arise locally from degraded land and particular industrial activities. An occasional widespread air quality problem is that of smoke from fires, including deliberate burning off.

Perth, presently containing more than 70 per cent of the State's population, has successfully retained many attractive features. However, strategies effective so far in guiding rapid growth and urban spread may warrant modification as the city matures. For example, proposed developments affecting the small remaining proportion of biologically productive wetland systems should be reconsidered.

While a range of density options are available, each with their own benefits and demands, most metropolitan people continue to occupy "quarter-acre" blocks. This places heavy demands on limited water supplies (with some 80 000 private bores), adjacent cultivated lands, residual wetlands and other natural areas. It also results in high costs for transport and other services, and places a heavy reliance on private cars. Alternatives include areas of urban consolidation with nodes of well planned medium density living connected by efficient transport systems. Effective urban planning affording a range of housing densities could provide varied lifestyles and more efficient resource use.

Although smaller than Perth, regional urban centres also affect the local environment. New towns recreating suburban forms have been built as part of resource developments in the North West to satisfy community expectations. This places pressure on limited resources.

Overall, Western Australia has accumulated an environmental debt which will have to be met by the community if we are to restore sustainability. Those involved in using or managing the environment, whether public or private, are generally aware of the causes of the problems. However, until community awareness recognises the need for further remedial action only the symptoms can be addressed.

Photo: Westrail Public Affairs

6. STRATEGY DIRECTIONS

For the Strategy to be successful, it must set a framework for the development of an environmental ethic within the community. An environmental ethic involves a recognition of the interactions between conservation and sustainable development. This will in turn lead to a re-appraisal of the factors important in contributing to a high quality of life consistent with the Strategy's objective of sustainability.

Only a limited number of the many options for development may be consistent with sustainability. However, the community goals that derive from an environmental ethic can be achieved through a mix of mechanisms and varying degrees of Government control.

As present and future generations are equally important, it is imperative to retain a wide range of options and a sustainable environmental heritage for the longer term.
The major goals and priority actions listed in the NCSA (paras 25-35) have direct relevance to Western Australia. Hence they should be applied positively and energetically in this State. Additional aspects considered to be of particular importance to Western Australia are set out below.

6.1. IMPROVING THE CAPACITY TO MANAGE

6.1.1. Education, Awareness and Understanding

**Foster an environmental ethic throughout all sectors of the community*

This is the most important aspect of the State Strategy. An environmental ethic involves increasing awareness of our interdependence with the environment and of the necessity of sustaining that environment. Inherent in achieving this ethic is to develop:

- a sense of stewardship for our environment and natural resources as a whole, not just those within conservation areas;
- recognition that a change in attitudes and greater understanding are central to the reduction of environmental degradation;
- a wider exposure to and understanding of the concept of sustainability; and
- further participation in decisions having potential environmental consequences (see also 6.1.6).

6.1.2. Community Goals

**Emphasise the contribution of the environment to our quality of life*

Here it is necessary to distinguish standard of living which is largely based on economic criteria, from quality of life which includes aesthetic satisfactions as well as economic benefits. It is important to recognise that economic benefits are affected by the sustainability of the environment.

The application of environmental economics may need to be modified in order to achieve sustainable development. We might well develop other indices more indicative of the quality of life than traditional approaches embodied in the Gross National Product.

**Develop a conserver approach in the use of resources*

It should be recognised that our society can still maintain a high quality of life while applying greater care to resource use. Greater accent could be placed on quality rather than quantity, on thrift rather than waste, on durability rather than disposability, and substituting resources where applicable (see 6.2.2 for implementation).

6.1.3. Cultural Heritage

**Preserve representative examples of our cultural heritage*

Sites, works and buildings identified as significant examples of settlement by all racial and ethnic groups throughout Western Australia should be maintained as part of our cultural heritage. Particular recognition and protection needs to be given to Aboriginal sites.

Photo: Department of Aborginal Sites, WA Museum

A former Aboriginal campsite in the Admiralty Gulf area, northern Kimberley, showing extensive scatters of shell remains

**Recognise the affinity of the Aboriginal culture with the natural environment*

Recognition should be given to the special view of the natural environment held by Aborigines and to Aboriginal methods of conservation for its sustainable use. These should be studied and where relevant, applied to both Aboriginal and Non-Aboriginal lands.

6.1.4 Policy Planning and Co-ordination

**Plan to meet the consequences of changes to climate*

Continued rises in levels of atmospheric carbon dioxide and other gases which trap heat are predicted to begin affecting our climate increasingly during the next few decades. Early planning, especially for the coastal zone as sea level rises, will mitigate the economic and environmental costs.

**Integrate closely with national programmes developed under, or relevant to the National Conservation Strategy*

These include:

- National Soil Conservation Programme;
- National Tree Programme;
- Greening Australia; and
- National Forest Strategy.

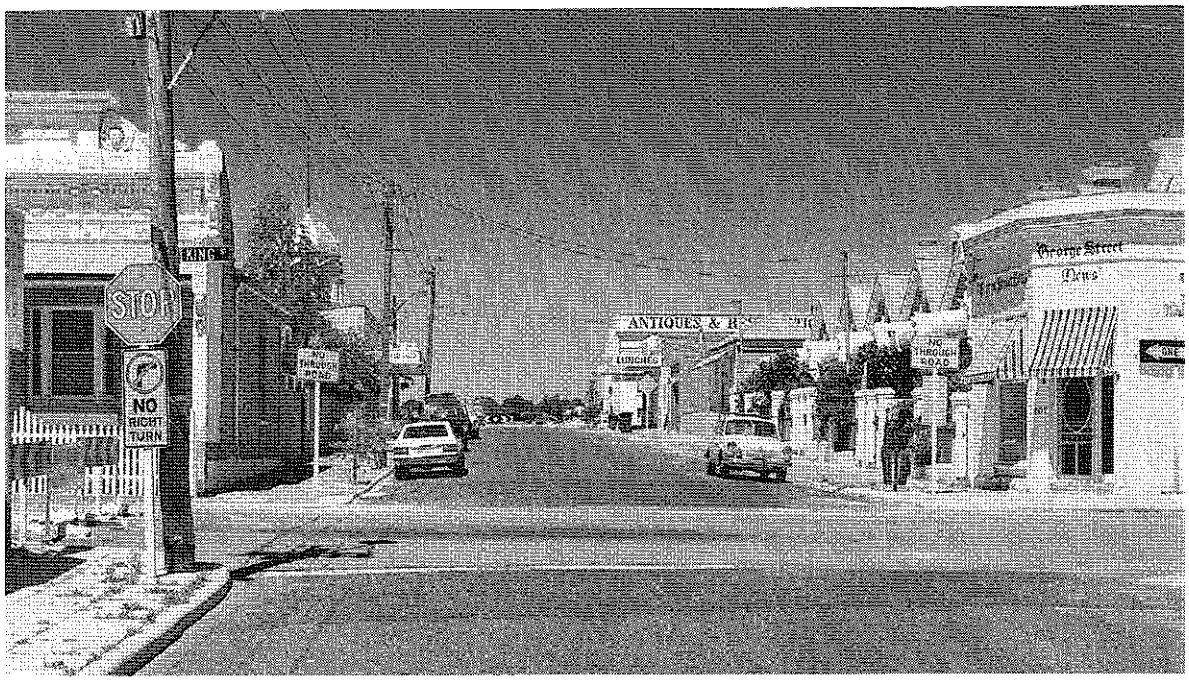


Photo: City of Fremantle

**Further develop a regional approach to long-term planning*

This should include an understanding of environmental processes operating within each region, its suitability for various forms of use, and its capacity to sustain development at a particular level. Planning, in the broadest sense, should integrate conservation and development towards sustainability.

Policy guidelines on living resources, on areas and habitats at risk, and on human activities, will be required here to guide sustainable development which maintains a high quality of life. When planning development, give close attention to the sensitivity/resilience of the environment and to guiding activities in a manner that will maintain the environment

Planning should give attention to strategies for urban consolidation and fostering rural re-settlement.

**Integrate land use management and monitoring on a regional basis*

Monitoring must be carried out to ensure that the implementation of planning guidelines is effective and that corrective action is taken where environmental objectives are not being met.

As part of this regional approach, particular attention should be given to the management of Aboriginal lands towards sustainable objectives. This requires co-operative input from Aboriginal communities in consultation with other relevant organisations including statutory Aboriginal bodies.

6.1 5 Legislation

**Ensure that relevant legislation and regulations are applied to promote the achievement of the objectives of the Strategy*

Western Australia already has a range of legislation affecting protection and use of the environment. This should be reviewed regularly to take account of changing circumstances. To be most effective, legislation should be complementary to a strongly developed environmental ethic.

6.1.6 Participation

**Develop mechanisms by which the community can be directly involved from the initial planning of major developments*

Emphasis should be placed on community involvement from the commencement of the planning process in a proactive manner rather than solely reacting to decisions.

**Foster a commitment by decision makers at all levels to the Strategy*

Encourage the community to assess the policies and achievements of governments on the principle of sustainability adopted under both the National and State Conservation Strategies.

6.1.7 Research

**Develop and regularly up-date inventories of natural resources and processes, required for regional planning and management*

An understanding of the processes involved is required as well as descriptive lists. Information should be integrated in a computerised data-bank, with surveys and research to fill gaps as identified.

**Study the social and economic values related to environmental use*

Understanding social and economic values and decision making will improve the capacity to achieve the Strategy's objectives and principles.

6.1.8. International and Interstate

**Continue to recognise our interdependence with other communities, interstate and overseas*

Recognise the Western Australian community's interdependence with other communities, environmentally, economically and legally.

Photo: Alcoa of Australia Limited

Photo: Alcoa of Australia Limited

6.2 MANAGING FOR SUSTAINABLE YIELD WHILE PROTECTING LIFE SUPPORT SYSTEMS

6.2.1 Species and Habitat Protection

**Prevent further decline in species and genetic diversity in Western Australia*

In view of our commitment under the World and National Conservation Strategies to preserve genetic diversity, the continuing decline of species and genetic diversity in Western Australia is of great concern. This is diminishing ecological stability and is reducing our future options for productive use of selected species. Even an expansion of well managed National Parks and Nature Reserves will not prevent further loss of species and genetic diversity. Landholders should be encouraged to conserve habitats and species on other lands and waters.[11]

**Adequately protect and manage representative areas*

Recognise the need to preserve representative samples of all the State's major ecosystems, some of which are not currently in reserves. Policies should be developed and regularly reviewed to ensure that areas of high conservation value be accurately classified and adequately protected. Those areas of highest conservation value should be protected by National Park or A class Nature Reserve status. In National Parks and A class Nature Reserves, land uses incompatible with their primary purposes should not be permitted.

Conservation corridors are important for the maintenance of representative systems of flora and fauna, especially in regard to migratory fauna.

Protection of native species and ecosystems within parks and reserves requires adequate resources for their management

6.2.2 Conserving Physical and Living Resources

**Implement a conserver approach in the use of resources*

As part of a conserver approach, consideration should be given to:

- lowering per capita consumption by reducing waste;
- substituting alternative resources where applicable;
- maximising yield per unit of resource;
- production of higher value goods, thus achieving the same economic benefit while conserving the rate of resource use; and
- further attention to recycling/re-use

**Modify inappropriate management practices to conserve natural resources*

Degradation of land and water resources is a continuing problem in Western Australia. While many landholders are taking action to address the situation, further efforts are required to halt and reverse these processes. Resource use potential should be reappraised where present uses are no longer sustainable.

**Rehabilitate degraded lands, waters and ecosystems*

Clearly, while full rehabilitation may not be practical or necessarily desirable, stability and sustainable use should be restored.

It should be recognised and accepted that in some instances the costs of this restoration may have to be shared by all.

**Avoid disturbing sensitive environmental areas where viable alternatives are available*

Development options in biologically productive areas such as wetlands and offshore islands should be subject to detailed environmental assessment.

6.2.3 Controlling Pollution

**Minimise the impacts of wastes on the environment*

This may be achieved by conserving the use of resources, by effective policies of pollution control, including monitoring, and by actively promoting the recycling of wastes as potential resources.

6.2.4 Integration of environmental management with the economic process

**Cost the environmental component of future developments during their initial planning phase*

In future planning, ecological problems and environmental management should be built firmly into the operation of the economic system of our community, rather than regarded as issues to be dealt with separately. Advanced allocation of funds should be made for subsequent monitoring and management.

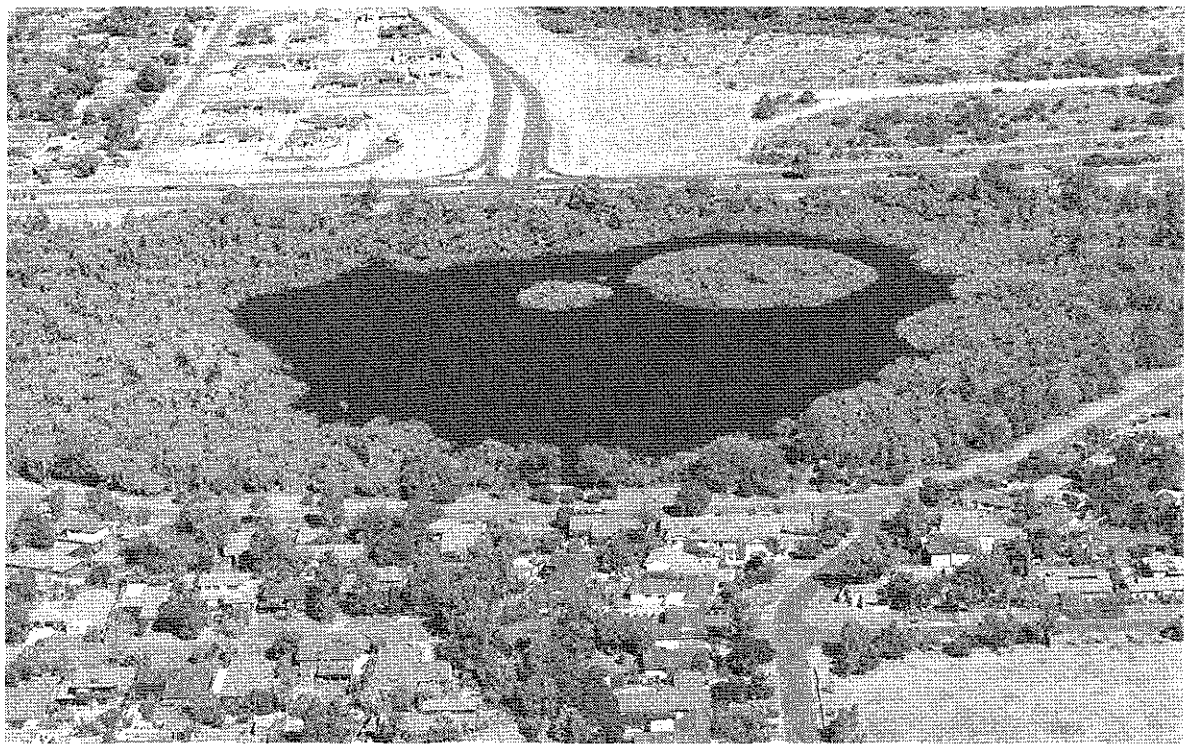


Photo: Water Authority of Western Australia

Possible options include:

- full costing of projects, goods and services to include ecological and social costs, including disposal, as well as the immediate production costs;
- extending the application of the environmental assessment process to include all changes to major land uses; and
- consideration of incentives.

**Recognise that diversification in use of resources can promote environmental stability and sustainability*

This applies the ecological principle that a more diverse system has greater overall stability. Applied locally, diversity on farmlands is seen as a key to stability, both physically and biologically.

6.2.5 Population

**Recognise the influence of human populations on the environment*

Environmental impact results from a complex interaction between the demands of individuals, the way those demands are met and the number of people whose needs must be met. Recognising that the WA environment is of limited carrying capacity, State policies should consider population growth, distribution and expectations.

This would be consistent with the recommendation made at the World Conservation Strategy conference held at Ottawa in June 1986 (yet to be considered by individual governments), that governments should shape policies which will bring human populations "into balance with their biological and physical life support systems, as an important means of improving the quality of life".[12]

6.2.6 Appraisal of Achievement

**Review regularly the state of the environment in WA and progress towards the objectives of the Strategy*

Agencies responsible for managing sections of the Western Australian environment should report regularly on the condition of each facet. These reports should be integrated by a lead agency and the findings reported to the community.

**Review the Strategy*

Components of the Strategy may need to be reviewed from time to time to ensure their consistency with the objectives of conservation and sustainable development, and in the light of the National and World Conservation Strategies.

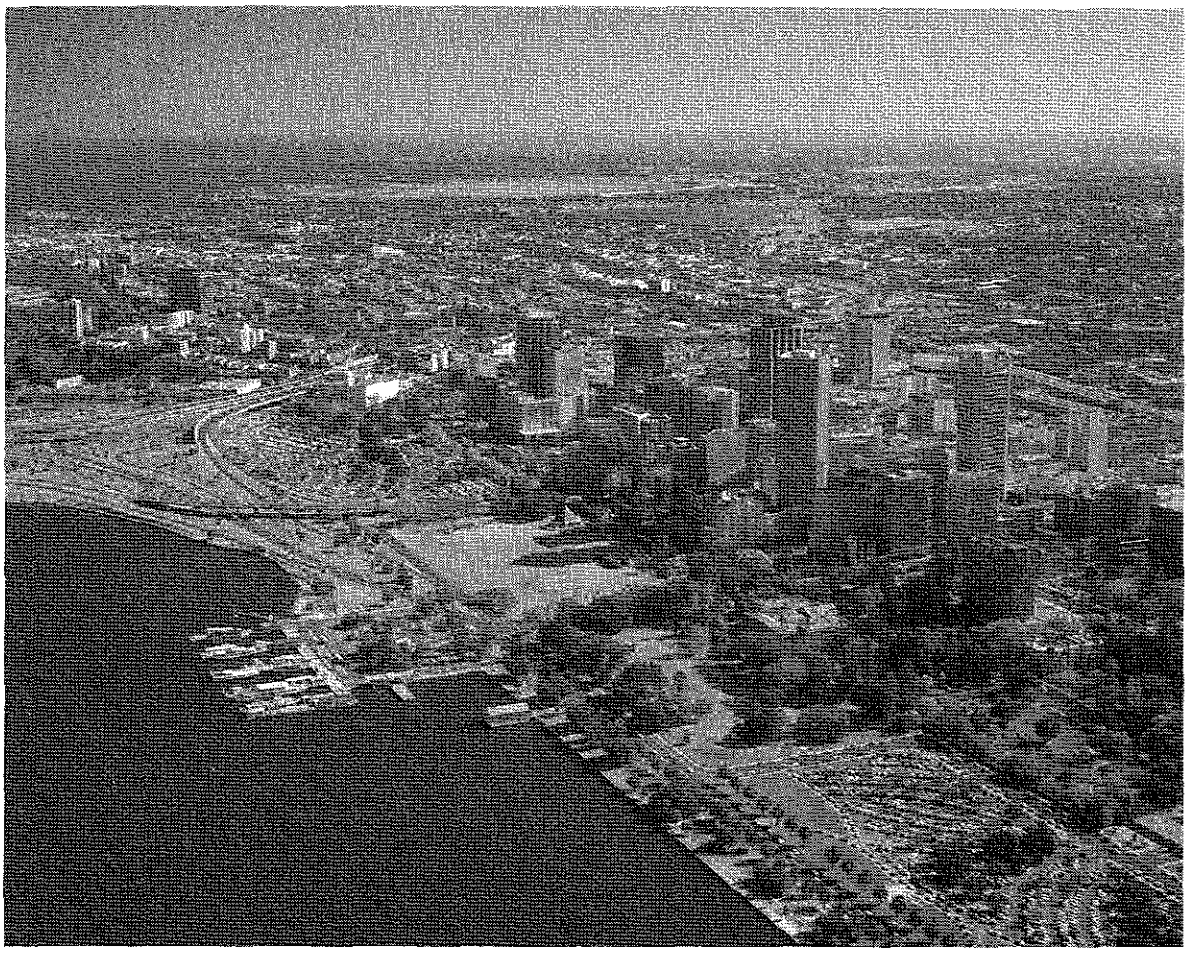


Photo: Stuart Chape

7. IMPLEMENTATION

Moving in the directions identified in this Strategy is a continuing process. Not only do we need to review the success of measures as we proceed, but also the strategies themselves need to be kept under review as community aspirations as well as technological advances may offer fresh prospects.

Implementations will be facilitated by the community, industry, government and various agencies working closely together on regional problems rather than operating independently.

Within a framework of formal legislation, the successful implementation of the Strategy relies upon the commitment of a strong environmental ethic across the whole community.

Recommendations for implementation are as follows:

7 1 The Government to ensure that its immediate policies and activities are consistent with the long-term directions of the National Conservation Strategy and the Western Australian State Conservation Strategy.

As a means of achieving this, the Government must ensure that the activities of its departments, authorities and agencies facilitate the promotion and achievement of these strategies.

7.2 The Environmental Protection Authority be assigned the role of co-ordinating the progressive implementation of the National Conservation Strategy and the Western Australian State Conservation Strategy, especially of fostering an environmental ethic throughout the community.

7 3 Departments and agencies to report annually to the public on the condition of that section of the environment for which they are responsible. Criteria for such an environmental report will be drawn up by the relevant department in consultation with the lead agency.

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APPENDIX I

REPRESENTATION ON CONSULTATIVE COMMITTEE
FOR W.A. STATE CONSERVATION STRATEGY
Chairman — Dr R G Chittleborough

ABORIGINAL AFFAIRS PLANNING AUTHORITY	Mr B Easton
DEPARTMENT OF AGRICULTURE	Dr G Robertson
AUSTRALIAN MARINE SCIENCES ASSOCIATION	Dr R Lethbridge
AUSTRALIAN RANGELAND SOCIETY	Mr C Lendon and Alternates
CHAMBER OF MINES OF WESTERN AUSTRALIA	Mr D R Brooks
CONFEDERATION OF WESTERN AUSTRALIAN INDUSTRY	Mr J Cooke
CONSERVATION COUNCIL OF WESTERN AUSTRALIA	Ms M Finucane Mr L Capill — Alternate
CONSERVATION AND ENVIRONMENT COUNCIL	Prof C A Parker
DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT	Dr. B Wilson Mr J Blyth — Alternate
COUNTRY SHIRE COUNCILS ASSOCIATION OF WESTERN AUSTRALIA	Mr J Dival
DEPARTMENT OF EDUCATION	Mr N Jarvis
DEPARTMENT OF FISHERIES	Dr H Jones
DEPARTMENT OF LAND ADMINISTRATION	Mr P van Noort
LAND MANAGEMENT SOCIETY	Mr D Stanley
LAND RESOURCE POLICY COUNCIL	Ms T Berson
DEPARTMENT OF MINES	Mr A Smurthwaite Ms S Belford — Alternate
NATIONAL CONSERVATION STRATEGY FOR AUSTRALIA — INTERIM CONSULTATIVE COMMITTEE	Mr A Hopkins
PASTORAL BOARD OF WESTERN AUSTRALIA	Mr C Russell
PASTORALISTS AND GRAZIERS ASSOCIATION OF WESTERN AUSTRALIA	Mr J Tonkin
PRIMARY INDUSTRY ASSOCIATION OF WESTERN AUSTRALIA	Mr W K Meier
DEPARTMENT OF REGIONAL DEVELOPMENT AND THE NORTH WEST	Mr R Guyton
DEPARTMENT OF RESOURCES DEVELOPMENT	Dr M Nahan
STATE PLANNING COMMISSION	Mr P Dick Mr M Maher — Alternate
THE TREE SOCIETY INC.	Mr. M. Hipkins Ms C Hooper — Alternate
WESTERN AUSTRALIAN CHAMBER OF COMMERCE AND INDUSTRY	Prof D O'Connor
WESTERN AUSTRALIAN MUSEUM	Dr P Berry
WESTERN AUSTRALIAN NATURALISTS' CLUB	Mr O Mueller
WESTERN AUSTRALIAN TOURISM COMMISSION	Mr M Sparrow
WESTERN AUSTRALIAN WATER AUTHORITY	Mr B Sadler
DEPARTMENT OF CONSERVATION AND ENVIRONMENT CORE GROUP	Dr. R.G. Chittleborough Mrs. C McDavitt Miss F Keating