



Department of Conservation
and Land Management

ANNUAL REPORT



1st JULY 1985 to 30th JUNE 1986

HON MINISTER FOR
CONSERVATION AND LAND MANAGEMENT

In accordance with Section 52 of the Conservation and Land Management Act, I submit for your information and presentation to Parliament the Annual Reports of the Department of Conservation and Land Management and the Roadside Vegetation Conservation Committee, for the year ending 30 June 1986.

A handwritten signature in black ink, appearing to read 'Syd Shea', written in a cursive style.

Syd Shea
EXECUTIVE DIRECTOR

26 November 1986

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Forest Production Council	

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GENERAL INFORMATION

The Department of Conservation and Land Management and three statutory controlling bodies were established under the Conservation and Land Management Act 1984. The controlling bodies are the Lands and Forest Commission, the National Parks and Nature Conservation Authority and the Forest Production Council. All are responsible to the Minister for Conservation and Land Management.

Functions under the Legislation

The Conservation and Land Management Act specifies a series of functions for the three controlling bodies* and the Department. In brief these functions are:

Lands and Forests Commission

- . vesting State forests and timber reserves;
- . developing policies to achieve or promote the multiple use and sustained yield of the forest resource for the satisfaction of long term social and economic needs;
- . process and monitor land management plans for forest areas;
- . advise the Minister for Conservation and Land Management on appropriate matters;
- . provide advice to others in the public interest;
- . instigate appropriate research.

* While the functions of the three controlling bodies are reported here, their activities and achievements for 1985/86 are described in a separate report bound with this volume.

National Parks and Nature Conservation Authority

- . vesting National Parks, nature reserves, marine parks and marine nature reserves;
- . develop policies for the preservation and enjoyment of the natural environment and the promotion of appreciation of flora and fauna, consistent with the essential purposes of parks and reserves;
- . process and monitor land management plans for parks and reserves;
- . advise the Minister on the development of policies for the conservation and management of flora and fauna;
- . provide advice to others in the public interest;
- . instigate appropriate research.

Forest Production Council

- . advise the Minister on:
 - matters relevant to production from State forests and timber reserves;
 - improvement in production consistent with maintenance of other forest values;
 - improvement in use, processing and marketing of forest produce;
 - research to achieve multiple use and sustained yield of the forest resource;
 - contents of proposed management plans.

Department of Conservation and Land Management

- . manage State forests, National Parks, nature reserves and other lands and the associated forest produce, fauna and flora;
- . assist the Commission, Authority and Council in their functions;
- . encourage the development of forest production requirements;
- . conserve and protect flora and fauna, and administer the Wildlife Conservation Act;
- . carry out research into land management, and conservation and protection of flora and fauna;
- . advise and co-operate with others in the public interest;
- . advise the Minister on land matters.

Other Legislation

In its nature conservation functions the Department administers the Wildlife Conservation Act 1950 and associated regulations. This Act applies to any indigenous or migratory fauna and any flora native to the State, whether found on Crown land, private land or territorial waters of the Commonwealth. The essential purpose is the conservation of flora and fauna in the State.

Although the Forests Act 1918 and the National Parks Authority Act 1976 were repealed to make way for the Conservation and Land Management Act 1984, the Forests regulations and the National Parks regulations remain in force until replaced by new regulations.

Associated with the passage of the Conservation and Land Management Act in 1984 were appropriate amendments to the Wildlife Conservation Act 1950, the Land Act 1933, the Bush Fires Act 1954, the Agriculture and Related Resources Protection Act 1976, the Fisheries Act 1905, and the Public Works Act 1902.

The Department administers the following acts:

Timber Industry Regulation Act 1926-1969, which empowers it to record, investigate and secure safe working practices in the bush and mill operations of the timber industry.

Sandalwood Act 1929-1934, which gives control over sandalwood gathering via a fixed quota, licencing and limiting collection of sandalwood on private property.

The Minister for Conservation and Land Management has a specific role under the Mining Act 1978. Applications for mining tenements on land managed by the Department, and some associated land, must be referred by the Minister for Mines for the Minister's concurrence or opinion. The Department becomes involved in drawing up the conditions for mining activity.

Other acts under which the Department has specific responsibilities are:

Alumina Refinery Agreement Act, 1961-1974
 Alumina Refinery (Pinjarra) Agreement Act, 1969-1976
 Alumina Refinery (Wagerup) Agreement and Acts Amendment Act, 1978
 Alumina Refinery (Worsley) Agreement Act Amendment Act, 1978
 Bush Fires Act, 1954-1981
 Land Tax Assessment Act, 1976-1980
 Wesply (Dardanup) Agreement Authorization Act, 1975
 Wood Chipping Industry Agreement Act, 1969-1973
 Wundowie Charcoal Iron Industry Sale Agreement Act, 1974-1979

Other acts which affect the Department's land management responsibilities are:

Aerial Spraying Control Act, 1966-1978
 Agriculture and Related Resources Protection Act, 1976-1981
 Agriculture Protection Board Act, 1950-1976
 Control of Vehicles (Offroad Areas) Act, 1978
 Country Areas Water Supply Act, 1947-1981
 Environmental Protection Act, 1971-1980
 Land Act, 1933-1980
 Local Government Act, 1960-1981

Main Roads Act, 1930-1981

Metropolitan Water Supply Sewerage & Drainage Act, 1909-1981

Rights in Water and Irrigation Act, 1914-1981

Soil Conservation Act, 1945-1981

State Energy Commission Act, 1979-1981

Ministerial Responsibility

The Department is responsible to the Minister for Conservation and Land Management.

Corporate Objectives

Under a corporate plan formulated in 1985/86 the statement of mission for the Department of Conservation and Land Management is:

TO PROVIDE FOR THE USE OF THE NATURAL ENVIRONMENT WITHOUT DETRACTING FROM POSSIBLE FUTURE USE.

The scope of the Department's responsibilities is represented by its charter which is:

TO CONSERVE WESTERN AUSTRALIA'S WILDLIFE AND MANAGE PUBLIC LANDS AND WATERS ENTRUSTED TO THE DEPARTMENT FOR THE BENEFIT OF PRESENT AND FUTURE GENERATIONS.

Primary objectives are:

Management

To protect, restore and enhance the value of resources entrusted to the Department so as to meet, as far as possible, the diverse expectations of the community.

Conservation

To conserve the indigenous plant and animal species and environmental processes in natural habitats throughout the State.

Production

To provide and regulate the supply of renewable resources on a sustained yield basis in a manner that minimises impact on other values.

Recreation

To facilitate the public enjoyment of the natural attributes of public lands and reserved waters in a manner that does not compromise conservation objectives.

Knowledge

To seek a better understanding of the natural environment and to promote awareness and appreciation of its values.

To achieve the primary objectives the Department will:

Provide an effective administrative framework for the conservation of wildlife throughout the State and the management of lands, waters and natural resources entrusted to the Department.

This will involve:

- . The maintenance of a Policy Directorate to establish, review and refine Departmental aims, policies and priorities; to monitor the implementation of management plans; and to see that goals are achieved.
- . The maintenance of an operations wing to implement policies and management plans and to set up efficient financial, administrative and management systems.
- . The provision of a Research Division to provide the scientific basis for conservation and land management, and provide scientific, environmental and social monitoring and advice to managers.
- . The establishment of a system of regional and district management, where staff convert plans and policies into works programs, carry out the work, provide feedback on progress and policy and planning needs, and maintain close, constructive relationships with local communities.

- . The maintenance of specialist branches whose role is to help to prepare management plans, to set standards of and to assist with the implementation of research findings, new technology, and improved methods of conservation and land management.
- . The development and maintenance of corporate information systems to facilitate the sharing of data, efficient communication and decision making.
- . The maintenance of a well motivated and competent staff.
- . The provision of programs for staff development and training.
- . Ensuring liaison, co-operation and co-ordination with other agencies or people with a function or interest in conservation and land management.
- . The maintenance of national and international liaison and co-operation in the field of nature conservation and the management of renewable natural resources.

Establish and maintain a system of secure reserves which protect viable representative samples of all the State's natural ecosystems and species, both terrestrial and aquatic, as well as areas suitable for recreation and the production of renewable natural resources.

This will involve:

- . The development and maintenance, in conjunction with other government instrumentalities and the public, of a comprehensive data base on the occurrence and conservation status of the State's ecosystems and species.
- . The maintenance of a representative committee to evaluate existing nature conservation reserves and to recommend additions, deletions or exchanges.
- . Categorising lands and waters entrusted to the Department into priority use zones and applying the principle of multiple use consistent with the needs of (in order of priority) nature conservation, recreation and production.

- . Protecting ecosystems, landscape and the cultural heritage on lands and waters entrusted to the Department from damage by fire, disease, grazing, feral animals and people.
- . Developing prescriptions for control of disturbance and for rehabilitation of damaged forests, parks and reserves.
- . Opposing the incompatible use of lands and waters entrusted to the Department and opposing the release of such lands and waters for other purposes.

Ensure that conservation and land management is carried out according to sound, well-researched scientific principles.

This will involve:

- . Carrying out, encouraging, supporting and publishing scientific, economic and social research relevant to the Department's needs.
- . Establishing long-term monitoring of ecosystems and individual species, and of recreation requirements and effects.
- . Developing and maintaining inventories of biological resources on lands and waters entrusted to the Department, and where appropriate, Statewide.
- . Liaising with other research and land management organisations to define, prioritise and co-ordinate research programs and publishing results.
- . Ensuring the efficient transmission of research findings into operational practice.

Provide public education and information programs designed to increase community understanding of and support for nature conservation and natural land management.

This will involve:

- . The establishment of interpretation centres with appropriate facilities for education and activity programs.
- . The dissemination of relevant information.
- . The promotion of direct interaction between staff and the public.
- . The encouragement and facilitation of publicity for nature conservation and natural resource management.

Encourage and assist the public to participate in the development of conservation and land management policies and the implementation of management and research programs.

This will involve:

- . The use of formal processes which involve the:
 - Lands and Forest Commission;
 - National Parks and Nature Conservation Authority;
 - Forest Production Council; and
 - public submissions to the planning process, as described in the Conservation and Land Management Act, 1984.
- . The establishment of consultative and advisory committees, when appropriate, to facilitate an exchange of information between organisations and public groups and to provide advice to the Executive Director.
- . The formation of 'friends' groups and similar associations and the organisation of voluntary assistance programs.
- . The training of staff in the objectives and techniques of public participation.

Prepare and implement management plans for lands and waters entrusted to the Department.

This will involve:

- . The establishment of priorities for management plan preparation according to set criteria.
- . Restricting procedures to necessary operations to maintain public safety and the status quo of area management where no management plan exists.

Prepare and implement wildlife management programs for wildlife throughout the State.

This will involve:

- . Providing special protection for declared rare flora by regulating land use of their habitat.
- . Managing rare animal populations to ensure their survival.

Prepare and implement timber production strategies which meet the objectives of the State.

This will involve:

- . Continuous review of supply and demand data for wood products.
- . Establishment of pine forests to supplement a planned reduction in hardwood production.

Manage exploitation of renewable natural resources according to the following principles:

- resources are managed to ensure their long term conservation;
- a fair and equitable return is received for the resource;

- resources are exploited so that wherever possible the operation is commercially viable;
- the resource is managed to minimise waste.

Develop opportunities for the recreational use of lands and waters entrusted to the Department in ways which:

- are consistent with the purpose of the area;
- provide a return to the State for services and amenities;
- provide an equitable allocation of land and resources where there is competition between user groups;
- allow for commercial operators to provide services where appropriate.

Administrative Structure

The administrative structure of the Department is headed by an Executive Director who is appointed by the Governor for a seven year term. Besides being the permanent head the Executive Director is a member of the Lands and Forest Commission, an ex-officio member of the National Parks and Nature Conservation Authority and Chairman of the Forest Production Council.*

Two corporate decision-making groups oversee the diverse functions and responsibilities of the Department, and make up a Corporate Executive.

The Policy Directorate is headed by the Executive Director and has comprised the General Manager, and four policy directors who are responsible for forests, national parks and recreation, nature conservation, and research and planning. Its major task is to devise policy and liaise with the Operations Directorate about policy implementation.

* Composition and activities of these controlling bodies are reported separately.

This executive structure, as at 30 June 1986, is shown in Figure 1.

Sixteen specialist branches are responsible to the Policy and Operations directorates. The detailed branch structure, current at 30 June 1986, is shown in Figure 2, along with the names and qualifications of the officers occupying managerial positions.

Divisional and Branch Responsibilities

The essential tasks for divisions and branches are as follows:

Planning Branch -- prepares management plans in draft and final form according to requirements of the Act.

Production/Protection Research Branch -- conducts research of relevance to wood production, protection of forested areas, and the effects of production forestry on conservation.

Wildlife Research Branch -- conducts research on all aspects of flora and fauna conservation, largely outside of the forest areas.

Economics Branch -- services the Policy Directorate with economic analysis and advice on wood production, recreation and conservation work.

Technical Services Division

Recreation and Landscape Branch -- provides landscape planning and design assistance, and recreation planning and management advice.

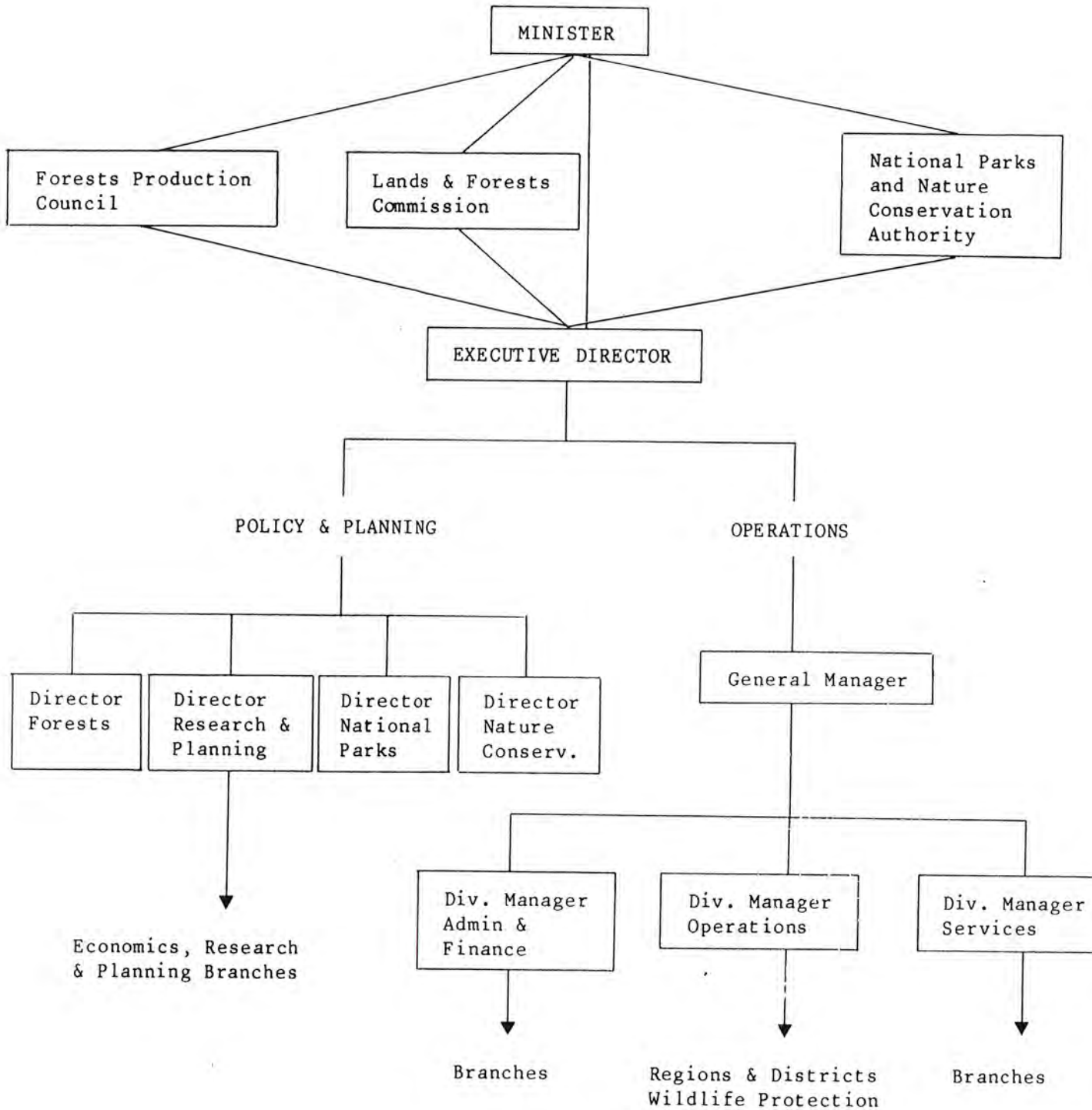
Fire Protection Branch -- prepares fire protection and suppression plans, provides detection and aerial prescribed burning services, and conducts fire training courses.

Environmental Protection Branch -- prepares guidelines and procedures for protection from dieback, weeds and vermin, evaluates mining proposals, and advises on implementation and rehabilitation.

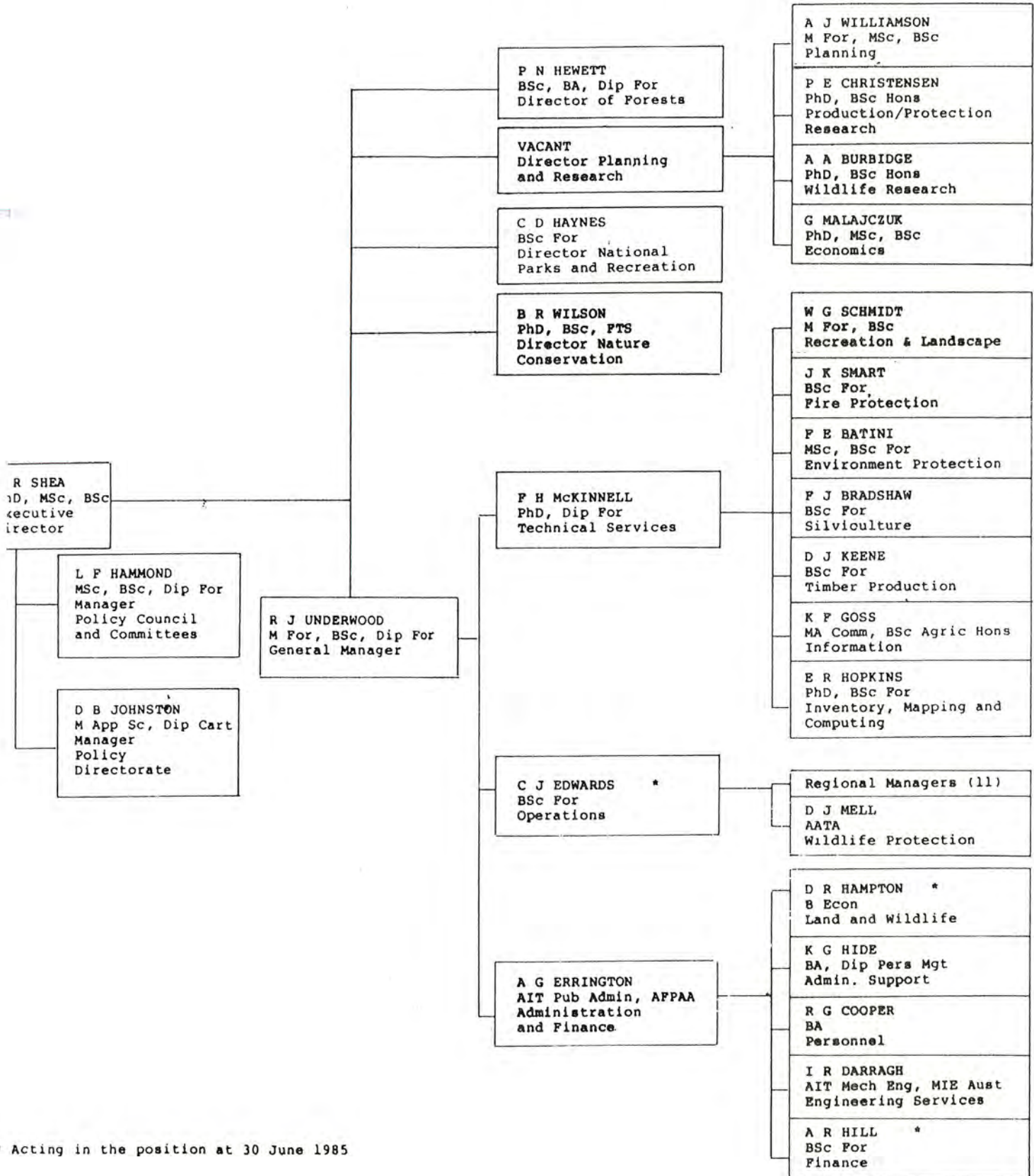
Silviculture Branch -- develops silvicultural guidelines and practices, advises on their implementation, and manages nurseries and seed supplies.

FIG. 1 EXECUTIVE STRUCTURE

as at 30.6.86



G. 2 BRANCH STRUCTURE
at 30.6.86



* Acting in the position at 30 June 1985

Timber Production Branch -- controls and monitors the harvesting of timber and collection of royalties.

Information Branch -- produces publications, displays, media releases and audio-visuals, co-ordinates interpretation, education and public participation, and operates a conservation advisory service.

Inventory, Mapping and Computing Branch -- services the management operations of the Department with resource information and plans for forest production, disease protection and conservation values; with map coverage and management mapping; and with computing services.

Operations Division

Wildlife Investigations Branch -- enforces the law on illegal taking or keeping of native flora and fauna, and encourages their protection through education and community liaison.

Administration and Finance Division

Land and Wildlife Branch -- administers land tenure and transactions, wildlife and timber licences and permits, offences, and mining applications.

Personnel Branch -- administers human resource management through co-ordination of selection and training of staff, liaison with unions and industrial associations, conducting a safety, health and welfare program, and maintaining staff records.

Engineering Services Branch -- administers the vehicle fleet, houses and buildings, and stores, and consults on the engineering of various projects.

Finance Branch -- administers finances and maintains accounting systems and procedures.

Regional Organisation

Regionalisation is a base principle for the structure and effective functioning of the Department.

The State is divided into eleven regions, each to be self-contained and eventually able to carry out all operational functions. Each has a regional manager who responds to the Divisional Manager, Operations. The geographic areas and names of the regional managers are shown in Figure 3.

The general responsibilities allocated to regions are to:

- prepare financial estimates and manage approved budgets;
- participate in project teams preparing land management plans;
- prepare and supervise works programs (based on approved management plans) for staff, employees and contractors;
- help, guide and train departmental staff in the region; and promote the health and safety of departmental personnel;
- ensure the conservation of indigenous flora and fauna;
- supervise and regulate industry (e.g. wildflower pickers, apiarists, timber and mining operations) on departmental land;
- preserve or restore the natural environment on departmental land;
- provide information and advice on land management and conservation to people in the region; promote conservation and good land management; and
- liaise with State government and local government agencies in the region; represent the Department on interdisciplinary working groups, and advisory committees.

Within regions there is a district structure, which is most developed in the three forests regions where there is a large operational responsibility.

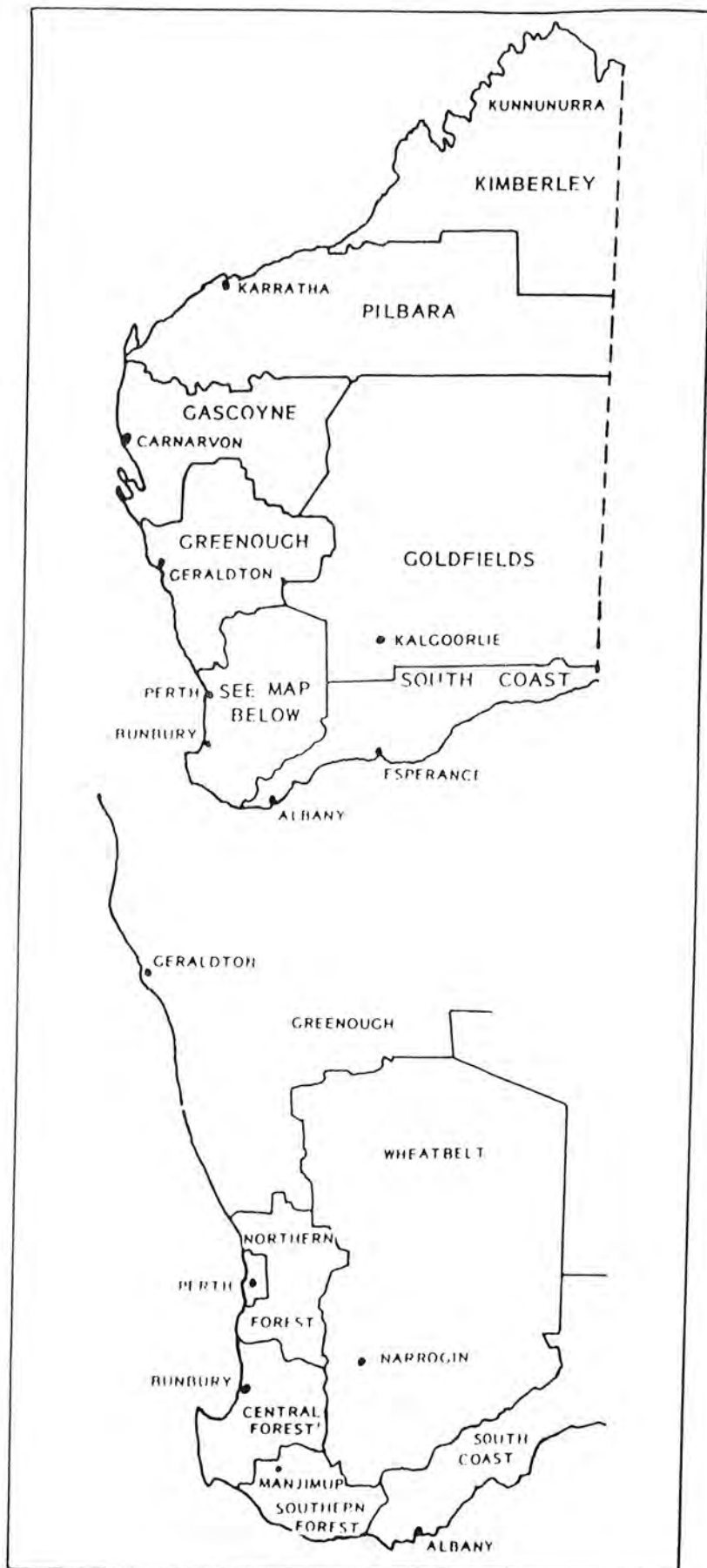


FIG. 3 REGIONAL ORGANISATION

As at 30.6.86

Regional Managers

B J WHITE* BSc For
Metropolitan

G B PEET MSc, BSc, Dip For
Northern Forest

D SPRIGGINS BSc For
Central Forest

A WALKER BSc For
Southern Forest

J R WATSON PhD, BSc ARIC
South Coast

K J WALLACE BSc Hons, Dip Ed
Wheatbelt

G MERCER B App Sc, Grad Dip
(Env Studies), Dip T
Greenough and Gascoyne

I G KEALLY* BSc For
Goldfields

A N START PhD, BSc ARIC
Pilbara and Gascoyne

C C DONE BSc For
Kimberley

* Acting in the position at 30
June 1986.

Locations

The Policy Directorate is located at Matilda Bay. The Operations Directorate and many of the specialist branches are based at Como. Planning, and Landscape and Recreation branches are located at Canning Bridge, and the Wildlife Research Branch at Woodvale.

Regional office locations are shown in Figure 3. On 30 June 1986 the Department had officers placed at many other locations, as follows:

district offices	16 locations
sub-district offices	3 locations
national parks rangers	31 locations
wildlife officers	13 locations
nurseries	6 locations

Further Information

Further information about the functions and activities of the Department can be obtained from the following sources:

- writing to the Executive Director, PO Box 104, Como, WA, 6152
- visiting the operations headquarters at 50 Hayman Road, Como
- subscribing to Landscape, a quarterly conservation, wildlife and forests magazine published by the Department, which features current policy and management issues.

EXECUTIVE DIRECTOR'S REVIEW

It will always be difficult to provide an objective assessment of the performance of the Department of Conservation and Land Management because of the multiplicity of the services the Department provides and the nature of those services. The fact that there has been a demand to extend the operations of the Department to other areas of public land, however, is tangible and objective evidence that the Department is perceived by the public to be performing its functions well.

The Department is committed to the principle that it is managing public land on behalf of the public, and consequently particular emphasis has been placed on informing the public of the Department's activities and, wherever possible, involving the public.

One of the formal ways the Department has involved the public is by the preparation of management plans which are a statutory requirement of the Conservation and Land Management Act. Over the 1985/86 year 20 draft management plans were initiated and are in various states of completion.

A major test for the Department arose in February this year when a serious fire threatened the Wanneroo pine plantation, the Yanchep National Park and adjacent suburban areas. The success with which this emergency operation was conducted demonstrated that the Department had fully integrated its component groups and was capable of co-ordinating and exploiting the benefits of a single land management agency.

With successful Departmental performance has come an increasing public expectation for management of public lands and wildlife with the result that there has been a major increase in the demand for its services. Consequently, the tasks undertaken by the integrated Department are far greater than those of its component agencies.

In the current financial climate it is unrealistic to expect that the Department will receive additional funds to cope with the increasing demand for its services.

The Department has undertaken, therefore, a stringent review of its operations. Those functions which are not appropriate for the Department to perform will be discontinued, and management systems are being reviewed to ensure that continuing functions are performed in the most efficient manner. While it will be possible to maintain many services by improving efficiency there is a limit to how many resources can be saved by efficient management. With that in mind the Department has explored and will continue to explore the maintenance of services without additional strain on consolidated revenue by application of the 'user pays' principle. I am confident that this reassessment will enable the Department to improve its service to the public and manage the land entrusted to its care despite funding constraints.

The success of the Department over the past year has not been achieved without cost. As well as the additional workload that has been placed on staff because of increased public expectations, there have been many changes in policies and management systems which inevitably place stress on members of the Department. I record my thanks to the staff of the Department for the way they have responded to these challenges, and to the families of staff for their support.

I also record my appreciation of the assistance of the Chairman of the Lands and Forest Commission, Mr Bruce Beggs, the Chairman of the National Parks and Nature Conservation Authority, Mr Norman Halse, and members of the Authority and the Forest Production Council throughout the year.

CHANGE AND ORGANISATIONAL DEVELOPMENT

Government Policy and Legislative Changes

During 1985/86 the following major projects were committed to the Department by Government decisions:

- Lane-Poole Reserve -- planning and management.
- Marmion Marine Park -- vesting and management.
- Kemerton Community Park -- planning and loan repayment.
- Herdsman Lake Regional Park -- consultation and management.
- Bungle Bungle National Park -- consultation and planning.
- Ningaloo Marine Park -- consultation and planning.
- Shark Bay area -- consultation.
- Boddington gold mining -- survey and environmental protection.
- Rottnest Island -- planning.
- Beeliar Regional Park -- consultation.
- Dwellingup townsite -- recreation development.
- Big Brook dam -- planning and recreation development.
- Harris River dam -- environmental protection.
- Abrolhos Islands - consultation.

A number of changes to the Wildlife Conservation Act occurred during the year. Amendment Act No 85 of 1985 increased the maximum penalties -- to \$4000 in the Act and \$2000 under the Regulations, where no penalty was specified before; and to \$10000 for the illegal taking or possession of rare fauna and for illegal taking of rare flora. Other changes included a two year statute of limitations for offences, and extension of provisions in regard to illegal possession of fauna to include live fauna.

Amendment to Conservation and Land Management Act (No 86 of 1985) restored the purpose of duck shooting to certain nature reserves. This overcame a difficulty with the new legislation.

Review of Operations

Section 144 of the Conservation and Land Management Act required the Minister to review the operation of the Act not later than 31 December 1985 and prepare a report based on his review to be laid before each House of Parliament.

In making that review, the Act specified that the Minister should have regard for a report of a select committee of the Legislative Council or Honorary Royal Commission touching on the subject matters of this Act.

An Honorary Royal Commission chaired by the Hon A A Lewis and comprising the Hon F E McKenzie and the Hon V J Ferry, DFC, reported to the Governor in November 1985.* It endorsed the concept of an integrated land management agency.

The majority of the Commission's 85 recommendations were agreed to by the Government. In fact, many had already been implemented. This was in a large part due to constructive interaction between the Honorary Royal Commissioners and the Department, such that many of the questions raised during the investigation were dealt with quickly.

There has been a detailed Government response to these recommendations as part of the review carried out by the Minister for Conservation and Land Management. His Report** was tabled at the commencement of the first session of the 32nd Parliament, 7 October 1986.

Constraints on Department's Operations

Since its inception on 22 March 1985 the Department has faced an apparently insatiable demand from the community at large for its advice, its services, its management and regulatory functions, and for dissemination of information on a wide range of topics. It is now quite evident that the public expectation of performance in the area of conservation and land management is far greater than anticipated.

* See 'Report of the Honorary Royal Commission into the Conservation and Land Management Act 1984', Western Australian Parliament, Perth, November 1985.

** See 'Report from the Review of the Operation of the Conservation and Land Management Act 1984', Minister for Conservation and Land Management, Perth, 31 December 1985.

The Department has been given increased responsibilities from the Government, and as a result of the operation of the Act. In particular, there is an urgent need for many more management plans to allow forest, park and reserve operations to proceed, and each requires substantial public involvement. Participation through submissions, workshops, committees, seminars, surveys, etc is a high priority and improves the standard of planning, but it also places large demands on operations and planning staff.

Rationalisation in other areas of Government operations -- for example, the formation of the State Planning Commission and the re-structuring of the Environmental Protection Authority -- has consolidated the role of the Department as a land management agency. Consequently, there is a much greater demand from Government for advice.

Finally, there is an increased expectation of Departmental performance by its own staff. When the Department was formed the Government argued that areas under-serviced in the past (e.g. national parks) would now receive greater attention and better management. Staff from the originating agencies are ambitious that these benefits accrue.

These increased pressures in the external and internal 'environments' of the Department have been exerted against the constraint of limited resources.

To accommodate this squeeze of greater demands and expectations against limitations in finance and staff the Department pursued increased efficiency in operations. This was achieved through corporate planning and financial review, continued re-organisation of policy and operations management, co-ordination and re-allocation of resources across State forests, national parks and nature reserves, and application of the principle that users contribute to management costs.

Corporate Planning

Preparation of a corporate plan has been a priority of the Policy Directorate. A mission statement and five primary objectives were derived, and by 30 June 1986 10 broad strategies and 35 sub-strategies had been decided.

Structural Re-organisation

During 1985/86 two developments initiated a change in the organisational structure of the Department:

- . The decision by Government to transfer the function of the Timber Bureau from the Department of Premier and Cabinet to this Department; and
- . The retirement of the Director of Research and Planning, Mr J J Havel.

To accommodate the first, a Division of Forest Resources is planned. As well as accommodating the functions of the former Timber Bureau, the new arrangement will allow the grouping of the Timber Production, Silviculture and Inventory branches under a new Divisional Manager. The wood utilisation research facilities and project will also be under his control. The vacant position of Director, Timber Bureau will be used to create the new position of Divisional Manager Forest Resources.

After Mr J J Havel's retirement, the operation of the first twelve months of the Division of Research and Planning was reviewed. It was clear that both line management and policy-making duties for the Director of Research and Planning were too extensive for a single position. Thus, policy duties are to be shared among other Directors.

The other duties of the position, principally, the assessment of research priorities, implementation of the research program, transmission of findings to operational practice and co-ordination of Departmental activities with external research organisations, will be the responsibility of a Divisional Manager, Research.

The two major research branches -- Production/Protection Research and Wildlife Research -- are to be extensively re-organised into one divisional research entity under the leadership of four principal and senior research scientists, and divided into project teams for 12 integrated research areas.

The Planning Branch is to be transferred to the Divisional Manager, Services; the Mapping and Computing sections are to become separate branches in the Services Division; and the Economics Branch will remain with the Policy Directorate.

While the review and planning for these changes was commenced in 1985/86, the new structure will come into operation early in the new financial year.

The proposals are summarised in Figure 4.

Regionalisation

Satisfactory progress was achieved in 1985/86 towards the continued establishment of regions to carry out all operational functions with relative autonomy and local accountability.

As of 30 June 1986 the following three regions were fully staffed and functional:

- Northern Forest
- Central Forest
- Southern Forest

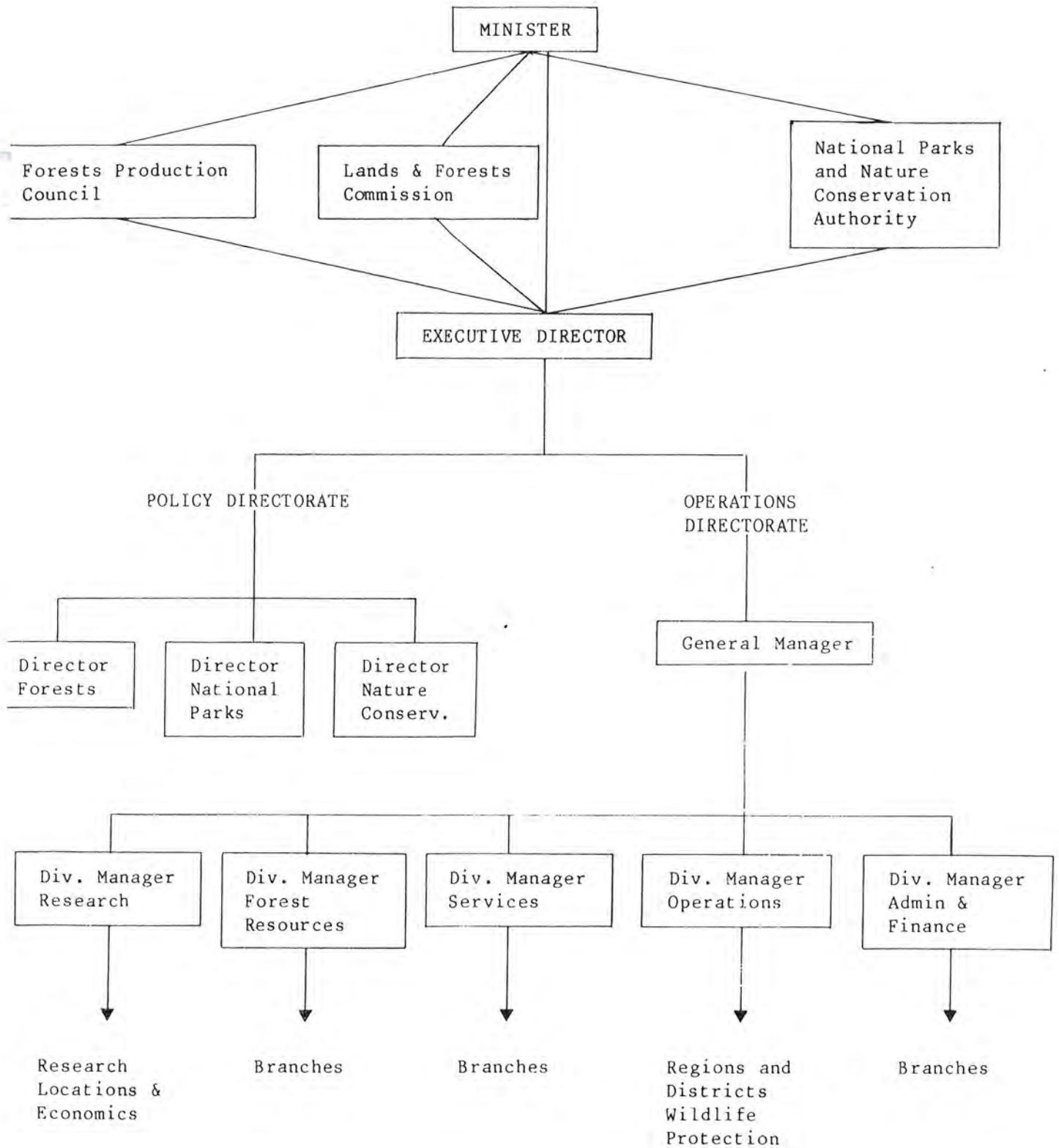
Their district structure was well established and fully operational.

In the following regions the basic organisation was in place, and with staff appointments and transfers most functions were being carried out:

- Metropolitan
- South Coast
- Wheatbelt
- Greenough
- Goldfields
- Pilbara
- Kimberley

Only the Gascoyne Region had not been established, and this area will be managed jointly by the Regional Managers based at Geraldton and Karratha for some time to come. A new district office was established at Moora, but proposed re-location of the Wheatbelt Regional Manager to Narrogin and establishment of district offices at Exmouth and Merredin had yet to occur.

FIG. 4 EXECUTIVE STRUCTURE



POLICY DEVELOPMENT

The Department has extremely diverse functions in its commitment to land and resource management and wildlife conservation. Under the new legislation and with new responsibilities it was inevitable that a 'rush' of policy issues would occur. The more important developments and decisions are highlighted here.

Forests Policy

Review of Timber Resources

A detailed review of all pine log resources was largely completed. The results indicated that the volume available now and in the decade to 1995 is well short of forecasts made in 1980, and that pine mills planned to come into production in 1990 must be deferred for at least five years.

The scope for second growth forests of jarrah, marri and karri to offset the declining cut of mature hardwoods was being reviewed in detail. The potential for a new industry using 125 000 tonnes per year of jarrah residues and for application of fertiliser to karri regrowth were considered. These data are essential for revision of the General Working Plan which is due for replacement in 1987. The new Working Plan will be produced in three parts: one for each of the forest regions.

Dieback Policy

The dieback policy of 1983 has been reconsidered in the light of hygiene logging trials and an amended policy has been produced. It will allow entry into Disease Risk Areas for limited logging activity under strict hygiene controls and monitoring. A new dieback policy has been determined for national parks and nature reserves in the South Coast Region.

Basic Raw Materials Policy

After consideration by an inter-departmental committee with representatives from the Mines Department and from the Department of Conservation and Land Management, policy on access to basic raw materials, especially gravel, was revised. The new policy allows for removal of gravel by Shires under certain

conditions and requiring issue of a gravel licence. Under other conditions where the gravel is being sold or used more than 5 km from lands under the control of the Department of Conservation and Land Management, gravel will be obtained through the Mines Department by means of a mineral lease. Gravel will not be taken from national parks or nature reserves except for use within the park or reserve, or for providing access to the park or reserve.

Woodchip Licence

Work began on a review of the WA Chip and Pulp Co Agreement Act prior to negotiating a new agreement. The present agreement expires in 1991 but provision must be made for public input and advance notice to Japanese buyers of any change of conditions.

The chipwood royalty was increased in February 1986 to \$10.29/m³.

National Parks and Recreation Policy

The published policies of the previous National Parks Authority have continued to be followed by the Department. However, nearly a decade has elapsed since their original preparation and consequently a comprehensive policy statement for recreation was commenced. An early draft applying to all lands managed by the Department was completed in 1985/86. It required a wide-ranging examination of all aspects of human use; for instance, facilities, concessions, visitor safety, and education. The under-lying objectives for such a policy review were discussed, and there was consensus among the Policy Directorate that the Department must:

- . take full advantage of commercial opportunities to improve management;
- . decide on appropriate visitor activities for all lands and sites managed by the Department; and
- . set realistic fees and charges so users contribute to the costs of management.

During 1985/86 all fees and charges were reviewed, and the Valuer General was requested to re-value those leases due for rent review. These developments are a recognition that national parks need more resources for proper management, and they were to be followed by a general increase in charges.

As a consequence of policy decisions some important initiatives were taken in 1985/86. There has been a re-allocation of resources into the improvement of the quality of sites in national parks. The emphasis has been on planned development of facilities, drawing upon the Department's recreation design and landscape architecture expertise, to ensure conservation and aesthetic values are maintained or improved. A small but significant proportion of capital funds was directed to improving the educational role of parks, particularly the installation of information displays.

Ranger Staff Development

The Department placed considerable emphasis on ranger staff development. A survey of training needs was completed late in 1985, and various training courses were held to improve rangers' technical knowledge and communication skills. A review of training needs, started earlier, was continued with a draft report being circulated to rangers and regional staff. Along with changes in duties and awards, these initiatives contributed to improved working conditions and an upgrading of status for national park rangers.

An Aboriginal Ranger Training Scheme based at Millstream-Chichester National Park was formally started in January 1986. Prior to the formal course six men were selected from two communities -- one with ties to the area and the other with ties to the Hamersley Range National Park. The number was reduced to four to start the 12-month course. Selections were made by community elders and representatives of this Department and the Australian National Parks and Wildlife Service (ANPWS). The course has progressed most satisfactorily, and the Department has appreciated the opportunity to work co-operatively, with the ANPWS, the Commonwealth Department of Employment and Industrial Relations and Aboriginal communities on such a 'milestone' project. In fact, opportunities for an extension of this form of Aboriginal involvement were being explored and frequent discussions were held with local groups and the ANPWS.

Mining

A Government review of mining in national parks was started in December 1985. The Department has participated substantially in the review, through membership by the Director, National Parks and participation by the Manager, Environmental Protection Branch.

Marine Regional and Parks

With the proposed establishment of Ningaloo and Marmion Marine Parks, there was a need for policy development to provide a systematic approach to marine park selection and management. A working group was set up to evaluate and select potential marine parks around the W.A. coast, drawing upon a combined expertise of all States through the Department's involvement with a national Council of Conservation Ministers (CONCOM) working group.

In January 1986, Cabinet announced its intention to create Perth's first Regional Park at Herdsman Lake. The whole area, of 304 ha, is to be vested under the Conservation and Land Management Act in early 1988 for the purpose of conservation of flora and fauna and compatible recreation. Gradual transferral to the Department of responsibilities for management is occurring during the transition period. The Herdsman Lake Management Advisory Committee is now established with the Department as the lead agency.

Towards the end of 1985/86 negotiations commenced on a proposed Beeliar Regional Park, to incorporate two chains of wetlands east of Cockburn.

Nature Conservation Policy

Kangaroo Management Program

The management program for the Red and Western Grey Kangaroos, and the Euro, was revised during the year and approved by the Commonwealth Government in accordance with legislation concerning the export of wildlife products. The kangaroo management program was published by the Department.

Peel-Harvey Inlet Conservation

The Peel-Harvey Conservation and Development Committee was established with the Department as the lead agency and Cabinet endorsement in early 1986. It has representation from the Department of Conservation and Environment, Waterways Commission, Peel Inlet Management Authority, State Planning Commission, the Department and the Shires of Mandurah, Murray and Waroona. Its brief is to identify key areas for conservation around the whole estuary, and to make recommendations for their management, especially in relation to planned housing developments. A conservation study of the three delta regions of the estuary has been conducted, and the Committee will report to Government around the end of 1986.

Conservation of Native Vegetation

A conference on remnants of native vegetation was convened by the Department and CSIRO, and held at Busselton in August 1985. It considered strategies for research and management of small remnants of native vegetation. About 100 experts in ecology and evolutionary biology, including several visitors from overseas, attended. They expressed alarm at the continuing destruction of Australian vegetation, and emphasised the need for co-ordination between research and management in conserving living resources. The meeting also noted the important contribution made to the conservation of species by small areas of remnant vegetation, and that such areas require special management and regular monitoring because of their small size. Shortage of resources for such specialised management was identified as an important threat to the viability of small reserves.

The Roadside Vegetation Conservation Committee was reorganised during 1985/86, with the Department becoming the lead agency. It is the subject of a section later in this report.

Island Management

A CONCOM technical workshop on island management was convened by the Department and held at Barrow Island. Its purpose was to review island survey, ecology and management as they are applied in Australia and New Zealand, and to publish comprehensive review papers arising from the conference. The workshop was attended by specialists from Australia and New Zealand, who shared a view that islands have very high conservation value.

Inter-agency Consultation

A large proportion of nature conservation policy input has been via various consultative committees and groups. Policy staff have continued to liaise and co-ordinate nature conservation and national park management nationally, through membership and participation in CONCOM working groups. Within W.A. they have represented the Department and contributed to the:

- . State Conservation Strategy Consultative Committee
- . Shark Bay Consultative Committee
- . Marmion Marine Park Consultative Committee
- . Herdsman Lake Management Advisory Committee
- . Peel-Harvey Steering Committee

The Director, Nature Conservation, was heavily involved in the consultation and planning for marine park and marine nature reserves development; a new area of responsibility for the Department.

Considerable attention was paid to consultation on the future of the Shark Bay area. In recent years there have been numerous proposals for areas of land and water to be set aside for nature conservation. The Department has participated in a range of studies and community consultations to advise the Government on land use.

Policy Statements

It has not been possible for the policy directors to prepare all of the policy statements required. Work on policies was largely done by first identifying the need, and then by the Corporate Executive assigning priorities for policy development. Each member of the Corporate Executive accepted responsibility for preparation of a group of policies. Each policy issue was passed to a regional manager, branch manager or scientific officer who, with other key personnel, prepared a draft. The draft is then submitted to the Corporate Executive for discussion. Those responsible for its preparation attend and participate in the debates which follow.

The Corporate Executive proposes amendments to, or accepts the policy, having given consideration to:

- (a) its impact within the Department on the various specialist functions; and
- (b) its impact on external organisations.

There are currently some 50 major policy issues under development in the Department. Policy statements issued in 1985/86 were:

NO.	TITLE	DATE OF ISSUE
1	Planning	January '86
2	Basic Raw Materials	November '85
3	Dieback and Logging	November '85
4	Departmental Advisory Committees	December '85
5	Research and Technical Publications	January '86
6	Staff Training and Career Development	January '86
7	Recreation in Nature Reserves	January '86
8	Financial Management	May '86

Another 14 draft policy statements had been submitted to the Corporate Executive by 30 June 1986.

The Policy Directorate met 32 times during 1985/86 normally on a fortnightly basis. The agendas have been very full and meetings often lasted all day, reflecting the urgent need for policies and strategies for implementation of the Act.

THE LAND ESTATE

The area of land managed by the Department at 30 June 1986 was as follows:

State forest	1 897 346 ha
Timber reserves	119 175 ha
Freehold	26 558 ha
National parks	4 438 716 ha
Marine parks	-
Conservation of flora and fauna reserves	9 960 760 ha
Marine nature reserves	-
	<hr/>
TOTAL	16 442 555 ha

Forest Areas

There was a net decrease in the area of State forest during 1985/86 of 604 ha. This was largely due to the revocation of State forest no 66 at Chudalup, an area of 1494 ha proposed for inclusion in the d'Entrecasteaux National Park.

The area of timber reserves declined by 5 ha.

Freehold land vested with the Executive Director for the purposes of pine production was increased by 1017 ha during 1985/86.

The major forest types which occur within State forests, timber reserves and freehold land, were as follows:

TYPE	AREA (ha)
Jarrah	1 459 000
Karri	153 000
Wandoo	106 000
Mallet	10 000
Tuart	3 000
Goldfields' species	30 000
<u>Pinus radiata</u>	33 000
<u>P. pinaster</u>	28 000
Very open areas	221 000
	<hr/>
	2 043 000

National Parks

In July 1985 the 3580 ha West Cape Howe National Park was **gazetted**. Also 3435 ha of freehold property and pastoral lease adjoining d'Entrecasteaux National Park were purchased as an addition to the Park.

At 30 June 1986 there were 53 national parks vested under the Act, with the following land areas:

National Park	Area	National Park	Area
	hectares		hectares
Alexander Morrison	8 501	Millstream-Chichester	199 730
Avon Valley	4 368	Moore River	17 543
Badgingarra	13 121	Nambung	17 491
Boorabbin	26 000	Nowergup Lake	116
Cape Arid	279 415	Neerabup	1 078
Cape Le Grand	31 390	Peak Charles	39 959
Cape Range	50 581	Pemberton	3 135
Collier Range	277 841	Porongurup	2 572
d'Entrecasteaux	36 600	Rudall River	1 569 459
Drovers Cave	2 681	Scott	3 273
Drysdale River	435 906	Serpentine	635
Eucla	3 342	Sir James Mitchell	1 087
Fitzgerald River	242 804	Stirling Range	115 661
Frank Hann	61 420	Stockyard Gully	1 406
Geikie Gorge	3 136	Stokes	9 493
Goongarrie	60 356	Tathra	4 322
Gooseberry Hill	33	Torndirrup	3 868
Greenmount	58	Tunnel Creek	91
Hammersley Range	617 606	Walpole-Nornalup	18 419
Hassell	1 265	Walyunga	1 812
Hidden Valley	1 817	Watheroo	44 512
John Forrest	1 580	West Cape Howe	3 580
Kalamunda	375	William Bay	1 901
Kalbarri	186 076	Windjana Gorge	2 134
Leeuwin-Naturaliste *	13 112	Wolfe Creek Crater	1 460
Lesmurdie Falls	56	Yalgorup	11 740
		Yanchep	2 799
Total area			4 438 716

* Portion of unsurveyed coast not included.

Nature Reserves

The area of land reserved for the conservation of flora and fauna increased by 45 736 ha during 1985/86. Land at Benger Swamp, Wongamine and Birdwhistle Rock was bought as additions to existing nature reserves, and land at Ski Lake (Narembeen), North Dandalup and Moresby Range was bought to create new nature reserves. A new nature reserve (no. 39422) was created in the Shire of Lake Grace, totalling 40 000 ha. It is largely made up of salt lakes stretching north-south across the road between Lake Grace and Lake King.

Alienation and Leases

During 1985/86 15 applications were received for the transfer of a total of 596 ha of land from Crown to private ownership. Two applications totalling 267 ha were agreed to.

There were 60 applications for leasing 6057 ha of land vested under the Act. The Department agreed to the following:

	No.	Area (ha)
State forest	47	4 781
Crown land	7	1 121

Land in the Kemerton area near Australind purchased by the Government for a proposed aluminium smelter, was in the process of being transferred from the Industrial Lands Development Authority to the Executive Director.

LAND MANAGEMENT

Forests

Forest management continued according to the objectives, policies and strategies laid down in General Working Plan No 87, 1982.* The essential features of this Plan are multiple use management and regulation of an allowable hardwood sawlog cut. Major forest values are recognised and accounted for in a system of priority use areas. Major priority uses in the current Plan are:

- . flora, fauna and landscape
- . wood production
 - hardwood
 - softwood
- . water production
- . protection
 - catchment protection
 - protection of forest values
- . scientific study and education
- . recreation
- . public utility
- . mining

Planning and Consultation

During 1985/86 work commenced on drafting three regional management plans to replace the General Working Plan, to be available for public comment and submitted to the Lands and Forests Commission and the Minister for Conservation and Land Management for decision in 1987.

Two major draft management plans were prepared for release for public comment -- Lane-Poole Reserve, and Shannon Park/d'Entrecasteaux National Park. The Lane-Poole Reserve project planning team sponsored a series of workshops attended by representatives from various special interest groups and government agencies, to assist in resolving many land use issues, particularly fire protection. The Lane-Poole Reserve Advisory Committee assisted in these matters and finalising policies and strategies in the draft plan.

* See "General Working Plan for State Forests in Western Australia", Working Plan No. 87, Forests Department, W.A., 1982.

During 1985/86 the Karri/d'Entrecasteaux Advisory Committee was formed, drawing upon wide representation from the region, and again to assist in resolving land use conflicts. The Committee reviewed and commented on the Shannon Park/d'Entrecasteaux National Park draft plan.

Conservation of Flora and Fauna

The Department has been able to draw directly on wider expertise in its management of forest ecosystems, and protection of flora and fauna. Wildlife Officers assisted in the identification of rare or endangered species, and nature reserve management principles have been applied to forest Management Priority Areas (MPAs) created for nature conservation.

At Gunapin Management Priority Area in the Mundaring District increased vehicle use was in conflict with conservation objectives. The groups responsible were identified and liaison has commenced to restrict abuse of the area.

Landscape Planning

Landscape plans are an integral part of regional, district and site planning, to ensure that forest management activities and production operations are carried out within acceptable limits visually.

Field assessment was largely completed on the Albany Highway viewshed study; a project to evaluate the visual impact of proposed bauxite mining operations east of Jarrahdale. A plan and specifications were prepared for rehabilitation of a liquid waste disposal site within Gnangara pine plantation.

Regeneration and Tending of Hardwood Forests

During 1985/86 the following areas of forests were cut over for timber production:

Forest Areas Cut Over		1985/86 (ha)	1984/85 * (ha)
Jarrah	selection felled	22 168	32 375
	clear felled	468	99
Karri	clear felled or cut to seed trees	1 585	2 362
	removal of seed trees	685	1 345
	thinned	340	497
Marri	selection felled	-	79
Wandoo	selection felled	72	589
Jarrah/wandoo selection felled		579	-
Sheoak	selection felled	134	563
Mallet	thinned	91	166
Pine	clear felled	88	148
	thinned	2 224	3 300

* Combined areas cut over: Forests Department Annual Report from 1 July 1984 to 21 March 1985 and Conservation and Land Management areas from 22 March 1985 to 30 June 1985 (details not published).

NOTE: These areas of forest "cut over" should not be taken as a comparative measure of the amount of forest harvested in the 12 month periods reported. They are more a guide to the amount of regeneration carried out.

Consider the karri forest. The area of the forest that can be regenerated from leaving seed trees standing varies greatly from year to year, according to seeding cycles in the forest. After successful seedling establishment the seed trees are removed, but this may be in the same or subsequent reporting periods. The area from which seed trees have been removed are the same areas accounted for under "cut to seed trees", and are not additional areas of cutting. Longer term trends are shown in Appendix 1.

The level of cutting in the forest is controlled by volume of sawlogs, and not area, and relevant figures are presented in the next section.

Generally, the jarrah forest regenerates naturally from lignotuberous seedlings, stimulated by controlled burns before and after logging.

The Forest Improvement and Rehabilitation Scheme (FIRS), funded by Alcoa, aims to rehabilitate areas of jarrah forest adjacent to bauxite mining areas, where regeneration has been adversely affected by dieback disease. This involves the removal of bull banksia, which harbours the Phytophthora cinnamomi fungus in its root system. In 1985/86 1072 ha of forest were treated.

Jarrah Stand Improvement (JSI) is a silvicultural program for the improvement in productivity of hardwood forests. The work includes thinning of regrowth stands and removal of unsaleable, old growth trees to make way for regeneration. Various mechanical and chemical techniques are used. In 1985/86 3100 ha of jarrah forest were treated.

In calendar year 1985 a total of 2363 ha of the karri forest was regenerated by natural seed fall from retained trees (1173 ha), hand planting with nursery seedlings (1182 ha), and by sowing with karri seed (8 ha). Included is some re-planting of areas previously regenerated. Seedlings were planted on 386 log landings and associated snig tracks, in co-operation with the timber industry.

225 ha of previously cut over wandoo forest was prepared for a regeneration burn, but only 90 ha of the burn was able to be carried out. 57 ha was hand seeded and planted with nursery stock. 35 ha of tuart forest was regenerated by seeding and planting.

Establishment and Tending of Pine Forests

At 30 December 1985 the areas of State owned pine forests were 33 190 ha Pinus radiata, 28 025 ha P. pinaster and other species, with a total of 61 125 ha. For the calendar year 1985 planting details were as follows:

	1985	1984
Area planted with pines (ha)	2 289	2 534
Radiata	1 770	1 996
Pinaster and other species	519	538

Districts planting pines (ha)

District	Radiata	Pinaster and other species	Total
Wanneroo	-	480	480
Mundaring	77	2* ¹	79
Harvey	38* ¹	--	38
Kirup	592	37	629
Busselton	737* ²	--	737
Nannup	7	--	7
Manjimup	66	--	66
Pemberton	253	--	253
	1 770	519	2 289

*¹ Second rotation

*² Includes 122 ha second rotation

The longer term trend in pine plantings is shown in Appendix 2.

The following pine forest tending was carried out during the 1985/86 period:

Scrub control	4 633 ha
Refertilising	8 309 ha
Pasture improvements	596 ha
Low pruning	3 261 ha
High pruning	2 373 ha
Non commercial thinning	1 024 ha

Private forest managers and consultants informed the Department that 494 ha of pine and 252 ha of hardwood forests were planted in 1985. This brings the total area of privately owned forests to 13 394 ha of pine and 860 ha of hardwood.

Rehabilitation

The Department's responsibilities in bauxite mining are to:

- direct mining to areas of least forest impact
- plan dieback management and rehabilitation programs
- maximise timber utilisation prior to clearing
- ensure compliance with agreed environmental protection measures
- implement FIRS program.

In 1985/86 339 ha of mine pits, access roads and other clearings associated with mining, were rehabilitated, by planting or seeding with a mix of eucalypt species.

Gravel pits were rehabilitated in several districts.

In the Wellington catchment a total of 800 ha were planted to 8 eucalypt species, and another 600 ha were surveyed, fenced and prepared for 1986 plantings on behalf of the Water Authority of W.A. An area of 56 ha was planted on behalf of the SEC.

In the Mundaring district 105 ha of catchment were rehabilitated. In the Jarrahdale district 25 ha of dieback degraded areas were rehabilitated; and elsewhere 124 ha of forest areas were replanted.

Protection

A total of 242 000 ha of indigenous State forest were prescribed burned for a variety of purposes including fuel reduction for fire protection, habitat management, disposal of logging debris, and site preparation for hardwood regeneration, and pine plantation establishment. Aerial burns were 206 000 ha and hand burning by ground crews 36 000 ha.

A further 6 421 ha of winter burning was conducted under pines for fuel reduction purposes. In addition several hundred kilometres of fire breaks and forest tracks were maintained or upgraded.

Fire detection and suppression are reported later in this Report.

Dieback hygiene, regulation and monitoring measures continued according to the amended policy of November 1985. Specific protection measures were formalised with Bunnings Ltd and Alcoa of Australia Ltd in the northern jarrah forest, and a CEP project in the Mundaring district assisted through closure of 130 forest tracks and reconstruction of three gates.

Noxious weed and feral animal control continued according to existing policies and techniques, and in co-operation with the Agriculture Protection Board. For instance 400 ha, mainly pine plantations, were treated in the Kirup district for blackberry control. Trial grazing with goats is showing some promise and the use of Garlon is proving effective. In the Mundaring district 45 pigs were trapped and destroyed.

Recreation

Major developments continued at the Shannon townsite and in the Lane-Poole Reserve. Stage two of the Shannon townsite development scheme was completed during the year, with major input coming from CEP personnel and funds. Projects included construction of walkways and bridges, upgrading the golf course, landscaping of day use and tent camping areas, completion of a multi-purpose building, information centre and other shelters, and the construction of various roads and car parks. The development was officially opened by the Minister for Conservation and Land Management, Hon Barry Hodge, on 1 May 1986.

In the Lane-Poole Reserve development group camping facilities and construction of a visitor centre were largely completed at Icy Creek, with CEP assistance. Facilities were improved elsewhere along the Murray River; for instance, at Tony's Bend.

Field assessment continued for the proposed realignment of the Bibbulmun Track, requiring considerable work from the districts concerned. A forest tour at Marrinup near Dwellingup was developed during the year. This project, also drawing on CEP resources, involved the development of four interpretive walk trails, provision of day-use facilities at the old Marrinup townsite, and re-development and rehabilitation of degraded areas at Oakley Dam.

Major site development was planned and carried out in the forest area west of Ashendon and Mundaring Weir roads, including four picnic sites and three walk trails.

In August 1985 The Gloucester Tree lookout was closed to allow for strengthening the attachment of the cabin to the tree. A second viewing platform was installed, the climbing and back pegs were replaced and an improved safety cage installed.

Construction of the Big Brook dam by the Water Authority of WA required re-location of 5km of the Rainbow Trail, near Pemberton, and the opportunity to start development of a major recreation site around the shores of the reservoir.

The Department worked with local community groups to develop the Golden Valley Tree Park (Balingup) and Bridgetown Jarrah Park.

Mundaring District Office and the Kelmscott Regional Office were open for public enquiries on the weekends and public holidays, a service that was well received by the public.

National Parks

Planning and Consultation

The draft management plan for the Shannon Park and d'Entrecasteaux National Park was prepared and released for public comment on 1 May 1986. Work was well advanced on the Leeuwin-Naturaliste National Park draft management plan, and to assist in its preparation workshops and surveys were conducted in the area, as well as a visit by the National Parks and Nature Conservation Authority. During 1985/86 drafting of management plans for Hamersley Range and Cape Range National Parks and the South Coast Region was started.

Conservation and Protection

Controlled burning was undertaken in several national parks particularly in the south of the State; 2 500 ha burnt by hand, 800 ha by aerial means, and 84 km of buffer.

In response to the detection of Phytophthora cinnamomi in national parks along the South Coast, dieback interpreters assisted with the demarcation and mapping of the disease. A regional dieback plan was finalised and the first action was closure of some roads in the Fitzgerald River National Park in June 1986.

Control of weeds and vermin included spraying of blackberry in Porongorup National Park; trapping, shooting or baiting of horses, cattle or dogs in Hamersley Range National Park; and shooting and mustering of donkeys and cattle in the proposed Bungle Bungle National Park. The latter was conducted by the Department of Agriculture and the Agriculture Protection Board.

Landscaping and Recreation Facilities

A high priority had been given to upgrading equipment and facilities in national parks using loan funds and CEP projects, and this continued into 1985/86. A wide range of recreation sites was attended to, with site planning, rehabilitation and facilities development:

- Yanchep N.P. -- review of facilities
- Walyunga N.P. -- planning for camping; redevelopment of car parks and day use areas; rehabilitation of degraded areas
- Avon Valley N.P. -- planning for camping
- John Forrest N.P. -- general upgrading and rehabilitation
- Serpentine N.P. -- preparation of a site plan
- Leeuwin-Naturaliste N.P. -- redevelopment of roads and car park, toilet installation, and rehabilitation of Bunkers Bay
- Beedalup N.P. -- upgrading of the Fall walk trail
- Porongorup N.P. -- felling of potentially dangerous trees
- Stirling Range N.P. -- planning and redevelopment of day facilities at Bluff Knoll turnoff
- Fitzgerald River N.P. -- erection of information centre
- Stokes, Cape Le Grand, Cape Arid N.P.s -- establishment of information bays, installation of new toilets and tourist road construction
- Nambung N.P. -- site planning for redevelopment at the Pinnacles
- Watheroo N.P. -- redevelopment plan for visitor access and interpretation at Jingemias Cave
- Hamersley Range N.P. -- new campsite facilities
- Millstream-Chichester N.P. -- improvements to day use facilities and walk trail

Other Capital Works

A ranger's house was erected at Hamersley Range National Park; mobile ranger stations were installed at Leeuwin-Naturaliste and Millstream-Chichester national parks; new power stations were set up at both Hamersley and Millstream-Chichester national parks. A fence was erected around the East Perth cemetery to protect the historic values of the site.

Nature Reserves

Planning

Management plans were approved for Mooradung and Wyalkatchem Shire nature reserves; draft plans for Forrestdale Lake and York-Northam Shires nature reserves were released for public comment; work continued on draft management plans for Benger Swamp and Dampier Archipelago nature reserves; and work started on the draft management plan for Two Peoples Bay nature reserve.

Conservation and Protection

At Two Peoples Bay Nature Reserve eight male and seven female noisy scrub birds were trapped and released at Mt Manypeaks, some 20 km to the north-east. Later a further translocation of birds was made to the Nuyts Wilderness in Walpole-Nornalup National Park, 150 km to the west.

Prescribed burning details are given in Appendix 11.

The presence of Phytophthora cinnamomi in the extreme south-west of the Wheatbelt Region was confirmed in 1985/86. Hygiene procedures were reviewed.

Management of nature reserves, particularly the hundreds of small reserves in the Wheatbelt Region, is made difficult by uncontrolled human impact.

In 1985/86 regular inspections of Wheatbelt reserves allowed their usage to be measured, and the planning of strategies to combat illegal activities. The results for the Katanning district are shown in the table.

SUMMARY OF HUMAN USAGE OF NATURE RESERVES - KATANNING DISTRICT

	Historic Usage		Recent (within 6 months)	
	Number	Per cent	Number	Per cent
Mining	79	44.1	10	5.6
Rubbish dumping	138	77.1	36	20.1
Timber Cutting	112	62.6	14	7.8
Stock Grazing	24	13.4	15	8.4
Picnic Site/Fireplace	9	5.0	13	7.3
Other	23	12.8	13	7.3
TOTAL: Reserves with usage	161	89.9	70	39.1

NOTE: Reserve inspections carried out January - June 1986.

A large number of protection and rehabilitation projects were carried out, ranging from typha and midge control in Metropolitan nature reserves to rubbish removal in the Goldfields, and re-planting on Dampier Archipelago islands.

Recreation and Other Works

There were several significant recreation developments on popular nature reserves and other reserves, again often benefitting from CEP funded projects.

Penguin Island N.R. -- installation and protection of walk trails

Herdsmen Lake -- placement of a raised walk trail

Sandford Rocks N.R. -- planning for a nature trail and production of an interpretative booklet

RESOURCE PRODUCTION

Wood Production

Timber harvesting is a closely monitored and managed activity. Logging is tightly controlled to meet environmental protection and disease management requirements, and to achieve the most efficient use of the resource. Logging plans take into account current tree age classes and specify a sequence of harvesting to achieve the long term goal of maximum sustained yield.

Through progressive restructuring of production areas of the forest a sustained yield will be achieved considerably higher than the current yield. Meanwhile, the level of hardwood sawlog cut is being reduced. The allowable cut is set according to long term plans which take into account the State's timber requirements, the rate of growth and expansion of pine forests and the continued conservation of the resource.

New Developments

A major breakthrough in the transition to second growth forests was the letting of a tender for removal of 20 000 m³ of small karri logs. A further parcel of 40 000 m³ of low quality karri and marri from a limited area of mixed forest near Manjimup was being prepared for tender. The availability of these previously unsaleable logs will help to offset the planned reduction in the level of cut in mature karri logs.

A decision was taken to spend \$1.8 million on re-fertilising better quality pine plantations to accelerate production of mill quality logs, and partly counter the projected delays in softwood supply.

The Government's softwood sharefarming scheme was launched on 14 November 1985. The scheme provides for the landholder and the Department to enter into an agreement for 31 years to grow plantations on private land. The landholder receives an annuity each year for 30 years, a share in the profit from the final crop, and retains ownership of the land.

At 30 June 1986 28 properties totalling 2 894 ha were under negotiation; 24 properties had been assessed as unsuitable; and 8 properties were withdrawn. One landholder had signed under the scheme, with 151 ha to be planted. However, following widespread interest from the shires of Albany, Denmark and Plantagenet the Minister approved extension of the scheme to those areas, and a large number of properties are already being assessed.

The Harvey Wood Utilisation Research Centre became operational with three-way funding from the Commonwealth and State Governments and from industry. Its purpose is to improve the cutting, handling and seasoning of small and faulty logs, especially regrowth eucalypts. A policy panel determines the work programs, which in turn, are reviewed by a progress review panel chaired by a representative of the Australian Industrial Research and Development Board.

Small 'scavenger' mill operations in the vicinity of Perth were given access to small parcels of jarrah logs of variable quality, by auction or tender. By providing a regular supply of logs in this way to offset declining private property resources, employment and customer service is maintained while utilising low quality or reject logs.

All these developments benefit the State by maintaining a supply of timber and promoting efficiency in the industry, while achieving the long term goal of sustained yield and conservation of significant areas of mature forest.

Log Production

The production of hardwood sawlogs for 1985/86 is summarised in the following table, in comparison with the allowable cut.

HARDWOOD SAWLOG PRODUCTION FROM CROWN LAND
1985/86

Species	General Purpose Sawlogs		Salvage Logs (m ³)	Veneer Logs (m ³)	Regrowth Thinnings logs (m ³)	Total (m ³)
	Actual cut (m ³)	Allowable cut (m ³)				
Karri	162 859	167 830	40 690	2 617	23 806	229 972
Jarrah	522 563)		41 437	-	-	564 000
Marri	16 457)		3 218	-	-	19 675
Blackbutt	2 635)	566 057	11	-	-	2 646
Wandoo	387)		120	-	-	507
Sheoak	145)		41	-	-	186
Other	342)		67	-	-	409
Total	705 388	733 887	85 584	2 617	23 806	817 395

The allowable cut refers only to the volume of hardwood sawlogs used by general purpose sawmills and is controlled by permits or licences issued by the Department. It does not include other sawlogs which, because of size or defect, cannot be used by these mills. These sawlogs are termed salvage logs, capable of being processed by smaller mills.

GENERAL PURPOSE AND SALVAGE SAWLOG PRODUCTION FROM CROWN LAND

	1985/86 (m ³)	1984/85 (m ³)
General purpose mills	705 388	718 845
Salvage mills	85 584	53 864

Other sources of log production -- veneer logs, small logs from regrowth karri forests, pine sawlogs, hardwood chiplogs and softwood pulping logs -- contributed to a total production of 1.6 million cubic metres for 1985/86. Another 156 127 m³ of log materials were taken from private property.

LOG PRODUCTION FROM CROWN LAND AND PRIVATE PROPERTY
1985/86

	Crown land (m ³)	Private property (m ³)	Total (m ³)
Sawlog timber * ¹			
Jarrah	564 000	38 881	602 881
Karri	229 972	16 385	246 357
Marri	19 675	762	20 437
Blackbutt	2 646	3 714	6 360
Wandoo	507	2 350	2 857
Sheoak	186	-	186
Other	409	-	409
Total hardwood	817 395	62 092	879 487
Pine	82 051	7 031	89 082
Total sawlog	899 446	69 123	968 569
Other log materials * ²			
Hardwood	514 436	64 914	579 350
Softwood	165 586	22 090	187 676
Total log timber	1 579 468	156 127	1 735 595

*¹ Sawlog timber from all sources, including veneer, but not including chiplogs, firewood, piles and poles.

*² Includes chiplogs and particleboard material.

Compared with the previous year the volume of all log materials increased 31 664 m³ to 1 735 595 m³, and pine logs by 32 971 m³ to 276 758 m³. Longer term trends are shown in Appendices 3, 4 and 5.

The volume of sawn timber produced from Crown land increased by 22 210 m³ to 281 528 m³ for 1985/86, an indication of more efficient utilisation of the log resource.

SAWN PRODUCTION FROM CROWN LAND AND PRIVATE PROPERTY

	1985/86 (m ³)	1984/85 (m ³)
Sawn Timber Production		
Crown land	281 528	259 318
Private property	20 462	25 834
Sawn Sleeper Production		
Crown land	24 156	24 984
Private property	2 830	3 179
TOTAL	328 976	313 315

The supply of high quality karri and pine logs for production of veneer was about the same as the previous year.

VENEER LOG PRODUCTION

	1985/86 (m ³)	1984/85 (m ³)
Karri	2 617	3 191
Jarrah	-	68
Pine	5 066	4 097
TOTAL	7 683	7 356

The supply of marri and karri chiplogs from Crown land increased by 17 555 m³ to 514 435 m³. The trend in a relative decline of chiplogs from the 'old growth' karri forest continued. In 1985/86, 83 per cent were marri and 17 per cent were karri. An increasing proportion of the karri chiplogs came from thinnings from regrowth forests (6 per cent), leaving 9 per cent from old growth logged areas. The W.A. Chip and Pulp Co Pty Ltd also obtained 64 914 m³ from private property; a decline of 26 788 m³ from 1984/85. Sawmill residues contributed 110 494 tonnes to woodchip production.

HARDWOOD CHIPLOG PRODUCTION FROM CROWN LAND AND PRIVATE PROPERTY

	1985/86		1984/85	
	(m ³)	Per cent	(m ³)	Per cent
Crown Land				
Old growth forest		94		95
Marri	428 514	83	400 828	81
Karri	54 448	11	71 613	14
Regrowth forest (thinning)		6.1		5.0
Marri	555	0.1	2 263	0.5
Karri	30 918	6.0	22 176	4.5
Subtotal	514 435	100	496 880	100
Private Property				
Marri	52 700		83 800	
Karri	12 214		7 902	
Total	579 349		588 582	

Longer term trends for hardwood chiplog supply from Crown land are shown in Appendix 6.

Thinning operations in the mallet plantation yielded 217 pieces of fence post material and 383 tonnes for tool handles.

Sandalwood production increased slightly to 1 940 tonnes. 1 859 t was cut by regular contractors, while another 71 t was cut by pastoralists experiencing economic hardship. Licences to obtain sandalwood were issued to 24 contractors; 9 full-time, 8 part-time and 7 pastoralists. Exports totalled 1 829 t for 1985/86 compared with 1 745 t for the previous year.

SANDALWOOD PRODUCTION

	1985/86 t	1984/85 t
From Crown Land		
Green sandalwood	966	933
Dead sandalwood	964	917
From Private Property	10	8
TOTAL	1 940	1 858

The amount of mining timber cut (1 707 t) was well below the average of recent years, due to the small amount of underground mining carried out.

Timber Industry Regulation and Employment

At 31 December 1985 a total of 127 mills was registered under the provisions of the Timber Industry Regulation Act: 50 mills on Crown land and 68 mills on private property.

The average number of persons employed in timber mills each month throughout the year was 1766, a reduction of 58 on last year's figure of 1,824.

The District Inspectors made 1,063 mill inspections and 977 bush inspections.

There were 144 notifiable accidents during the period. Regrettably three of these were bush fatalities. A notifiable accident under Section 14 of the Timber Industry Regulation Act is comparable with a Lost Time Accident as defined by the Australian standard.

The number of accidents per 100 persons employed was 8.15. This is equivalent to a frequency rate of approximately 46. (The frequency rate is calculated as the number of lost time accidents per 1,000,000 man hours worked).

The cost of administering the Timber Industry Regulation Act for the year was as follows:

Salaries	\$871,215
Travel allowances, plant costs and sundries	<u>\$24,050</u>
TOTAL	\$105,265

The overall employment in forest-based industries for 1985/86 was estimated as follows:

Sawmilling employees, including bush workers (employees of registered sawmills only)	1766
Other wood reprocessing industries (includes employees "working in wood" as defined under the Factories and Shops Act (1963))	3000
Firewood, mining timber and pole cutters working under licence	56
Sandalwood workers	72
Apiarists (2212 sites registered)	180
Total	<hr/> 5074

Tree Nurseries

The Department operates seven nurseries offering seedlings both for sale to the public and for Departmental planting programs.

The north-west nurseries at Karratha and Broome continued to produce and distribute species suited to arid environments, as part of the North-west Tree Scheme to encourage water-saving gardens in townsites. Karratha nursery distributed 28 000 potted seedlings free of charge under this Scheme. Hamel and Narrogin nurseries produce trees for farm plantings and other re-vegetation schemes. Overall, production and sales were maintained.

The Gnangara, Nannup and Manjimup nurseries produced pine and eucalypt seedlings for Departmental plantings. Nursery production for 1985 is shown in the table.

DEPARTMENTAL NURSERY PRODUCTION

Nursery	For Sale to the Public		For Departmental Use		Carry Over to 85/86	Total
	Potted Stock	Open Rooted Stock	Potted Stock	Open Rooted Stock		
<u>Commercial Nurseries:</u>						
Narrogin	272 000					272 000
Hamel	120 000		250 000			370 000
<u>Hardwood Nurseries:</u>						
Manjimup			987 000	1 054 000		2 041 000
<u>Pine Nurseries:</u>						
Gnangara		826 000		880 000	620 000	2 326 000
Nannup		40 000		1 640 000	600 000	2 280 000
Manjimup			(40 000 cuttings)			40 000
<u>Other Nurseries:</u>						
Broome	34 000					34 000
Karratha	46 200		2 200		33 000	81 400
TOTAL	472 200	866 000	1 239 200	3 614 000	1 253 000	7 444 400

Seed Store

Seeds of the major species needed for plantations, forest regeneration and rehabilitation, and conservation work, are collected and stored at Como. Seed storage has also commenced at West Manjimup nursery using cool room facilities and existing equipment for extraction, cleaning and grading. Use of this centre will give cost savings.

In 1985/86 a total of 1 215 kg of seed was collected at a cost of about \$125 000. Included were:

Pinus species	555 kg
Karri	62 kg
Other eucalyptus species	339 kg
Legumes	113 kg
Sandalwood	2 kg
Other	87 kg

There were 453 accessions, 212 for public sales stock and 241 for Departmental stock.

During the year 648 public sales and 63 packet sales of 105 kg occurred, and 847 kg was distributed in 821 issues to Departmental locations.

WILDLIFE PROTECTION

It is through detection and investigation of offences, and public liaison and education that compliance with the Wildlife Conservation Act can be gained.

During the year various offences against the Act and Regulations occurred. Verbal warnings were given by wildlife officers in many instances. There were 62 letters of warning issued. Action was under way for 123 reported offences and a further 35 prosecutions were completed, including two which were dismissed. For details see Appendix 9.

Apprehensions for taking and illegal dealing in fauna involved 64 species of birds, mammals and reptiles. These included gazetted rare species -- Red-eared Firetail Finch; Olive, Woma and Carpet Pythons. Reports alleging illegal reptile collecting and smuggling overseas were also received, causing concern that this activity is common. The high frequency of bird nest robbing (parrot species in particular) is also worrying, particularly the desecration of nest hollows and the effect on rare species. Further, many commercial-scale flora pickers were apprehended for taking protected flora from Crown land, including nature reserves. There were 14 species involved, including one gazetted rare flora species.

Regular patrols were done to detect and deter these illegal activities. Surveillance of nature reserves was maintained throughout 1985/86 to prevent illegal removal of flora, timber and gravel, illegal grazing, camping and buildings, rubbish dumping and taking of flora. Wildlife officers made four apprehensions under the Control of Vehicles (Off Road Areas) Act; two prosecutions are pending and penalties of \$221 were imposed on the other two. Island nature reserves were regularly patrolled for the same reasons.

Monitoring of licensed flora picking, open seasons for ducks, parrots and finches, and kangaroo culling continued. Kangaroo shooters, chillers, processors and skin dealers were checked regularly by wildlife officers. Rare flora, wetlands and the status of various species of flora and fauna were monitored.

Wildlife officers continued to provide guidance on rare flora and fauna for the public, governmental and other bodies. Also, there was a high demand for assistance regarding dangerous fauna, fauna causing damage, and sick, injured and derelict fauna. Advice was commonly sought on provisions and requirements under the Wildlife Conservation Act.

Rationalisation of country-based wildlife officers was continued with staff moving into regional offices as accommodation allowed. They have integrated well with regional operations.

Building of a replacement patrol boat commenced, to be used for inspection of coastal and island nature reserves. The upgrading in vehicle radio equipment continued and new equipment was investigated for its potential to provide immediate access to computer data.

RESEARCH AND PLANNING

Economics

The Economics Branch not only undertook research and investigation for the Policy Directorate but also serviced the former Timber Bureau of the Department of Premier and Cabinet.

Wood Production

A goal programming model was developed to provide operational guidelines and estimates of future timber yields for the radiata pine resource of the Central Forests Region. The model is being refined and extended to other forest areas.

The economics of fertilising existing radiata pine stands was evaluated and a submission was prepared to State Treasury seeking a re-allocation of Departmental funds to enable initial large scale re-fertilisation of the Central region radiata resource.

Developmental theoretical work on the softwood sharefarming scheme was completed and a submission was prepared to State Treasury seeking funds for the scheme.

Research was undertaken on the global supply of timber and future overseas and domestic demands and supplies of timber. This work is continuing, and will ultimately be used to determine the State's plantation requirements.

The economics of karri wood production were reviewed.

Economics of Recreation and Conservation

Some work was undertaken on the economics of fire protection, recreation and conservation. Although there is a need for a broad range of economics work, there is limited staff in the Branch to do this.

Production and Protection Research

Production research covers aspects such as wood production from native hardwood forests (particularly jarrah and karri), from exotic softwood forests (Pinus radiata and P. pinaster) and from agroforestry. Protection research includes fire, dieback, insect attack and rehabilitation of mined areas, as well as the effects of production forestry on conservation of flora and fauna, on recreation, on catchment management, etc. Supporting services are biometrics and general administration.

Research staff are located at seven centres (Wanneroo, Como, Dwellingup, Narrogin, Bunbury, Busselton, and Manjimup). Staff include 20 professional officers, 48 technical staff, seven general operational staff, and six contract personnel. The 1985/86 expenditure (excluding salaries) was \$767 000.

The highlights of the years research were the production of pine cuttings for agroforestry, the development of a classification system of dieback-affected sites using vegetation and other factors, the completion of a site-vegetation typing system in the southern jarrah forest, and the initial moves to develop a karri growth model.

Some of the major research programs carried out during the year are discussed below under the following headings: jarrah, karri, pine, rehabilitation, dieback and fire.

Jarrah

A comprehensive study of site-vegetation typing in the southern jarrah forest was completed.

Forest entomology studies have concentrated on the impact of leafminer, gum-leaf skeletonizer and chrysomelid beetles in the southern jarrah forest. Insects ate nearly 15 per cent of the area of the average jarrah leaf in this forest. Damage by leafminer was greatest in recently burned and logged forest in the low rainfall zone near Manjimup.

Karri

Field work to determine site productivity classes for areas of regrowth karri forest is one-third completed. Other research includes studying the effects of different thinning and fertilising regimes on growth of regrowth karri, and the effects of initial spacing on stem form, branch retention and growth rates. The data collected will be used in developing a karri growth model.

In regeneration karri stands, the wood-boring beetle Tryphocaria acanthocera was shown to have negligible effect in five-year-old stands but substantial effects in attacking 14 and 50-year-old stands.

Most ecological research in the southern forests is in the karri forest, with emphasis on effects of logging and burning on bird communities. Biological survey work was carried out in conjunction with local naturalist groups in the Walpole/Nornalup National Park.

Pine

Thinning and pruning strategies for pine grown on a range of sites were investigated. A major trial studying establishment and long term growth of a second successive crop (i.e. second rotation) was established on the coastal plain near Harvey.

A program with P. radiata has produced 35 000 cuttings, which will benefit agroforestry because trees will have better form and smaller branches, even when open-grown.

Fertiliser trials to examine the effect of phosphorus supply on its distribution in P. radiata and to investigate the effects of nitrogen supplied as clover or the inorganic form on growth, have continued. Assessment of trials of fertilisers applied to older stands have also continued.

Rehabilitation

Bauxite rehabilitation research has entered a synthesis stage where better techniques and better understanding of processes now open the way to more ambitious and refined objectives. For example, areas with better potential can be identified and planted to more productive species (e.g. Eucalyptus muellerana) or desirable local species (e.g. jarrah). A project has been commenced to define the performance and productivity of such new vegetation systems.

Another example is the adoption of protection as the fire control strategy in rehabilitated pits. This favours rehabilitation processes, especially nutrient accumulation, but requires some pit area for low fuel fire buffers. Development of a revegetation system which is stable and productive but able to be managed to low fuel standard is proceeding.

Eucalypt genetics research has the objective of producing superior jarrah trees for rehabilitation and production. A jarrah provenance trial has commenced to study variation within and between different populations. Provenances of E. accedens and E. pilularis were established at Jarrahdale minesite and Huntly minesite respectively, to enable identification of the best seed sources for rehabilitation.

Dieback

The major projects in dieback research, centred at Dwellingup, are surveys of dieback infected sites; processes occurring within sites; and assessment of damage in individual trees. Accurate classification of dieback-affected sites using vegetation, and looking at relationships between impact, topography, soil type and stand structure, has been shown to be feasible.

The effect of genetics of different families of jarrah on tolerance to Phytophthora cinnamomi is being assessed in glasshouse and field trials.

In other research, assessment of the risk of dieback in a range of communities, including coastal heath and banksia woodlands, is continuing. Results confirmed that warm moist conditions not only favour fungal activity in the soil, but also increase the susceptibility of hosts such as jarrah to rapid invasion by the fungus.

The Jarrah Dieback Research Fund continued to finance most studies on interaction between jarrah and P. cinnamomi. In addition, a grant was received from the Reserve Bank's Rural Credit Development Fund, to study causes of wandoo decline in the Upper Great Southern.

The Branch provides an identification service of Phytophthora species, with 682 samples being processed in 1985/86.

Fire

Experimental fires conducted in jarrah forest three years ago required complex analysis, and the results are now incorporated in the latest edition of "Forest Fire Behaviour Tables for Western Australia".

Techniques for prescribed burning in regenerated stands of karri less than 20 years old have been successfully developed. Fires with intensities of less than 400 kw/m, with carefully controlled ignition patterns, allowed spot fires to join up during cool stable conditions in late evening. Almost all litter and trash fuels were removed, and damage to co-dominant and dominant trees was minimal.

Publications

Published output of the Branch is listed in Appendix 10.

Wildlife Research

Wildlife research covers most aspects of flora and fauna conservation. The Branch is staffed with 15 research scientists, 24 technical and support staff, and seven wages and contract staff.

Biological Survey Research

Surveys carried out included: proposed land release areas near Manjimup, the Beekeepers Reserve at Cervantes, 'System 6' area C9 at Boonanarring Brook (Shire of Gingin), parts of the Nullarbor Plain near Cocklebidy and Toolinna Cove, offshore islands between Lancelin and Dongara, reserves in the York-Northam area, Woodman Point, sundry south coast reserves (as part of a dieback survey) and bat communities in mangrove stands in the Pilbara. Writing up of the Nullarbor survey was completed and writing up of the Eastern Golfields survey continued.

A comprehensive review of biological survey research was carried out during this year.

Ecosystems Dynamics Research

Work continued on plant ecology in relation to fire and minesite rehabilitation and new studies commenced on the effects of fire on animal species, particularly on invertebrates and reptiles.

Flora Conservation Research

Work on endangered flora continued and was expanded to include studies on the genetics of rare species. Taxonomic work on orchids and eucalypts has clarified species boundaries and identified a number of rare species.

Fauna Conservation Research

Studies continued on several rare species: the Western Swamp Tortoise, arid zone mammals, the Numbat, rock-wallabies and the Tamar. A pilot study was carried out on the Barred Bandicoot on Dorre Island.

Arid Zone Ecology Research

This new program is still in the design stage and will be finalised during the next year. It will involve studies on fire regimes in spinifex vegetation in desert national parks and nature reserves.

Waterbirds Conservation Research

Work continued on waterbirds and wetland nature reserves in the South-west. A study is planned on the problems associated with salinization of wetlands in the wheatbelt.

Island Conservation Research

The preparation of a draft management plan for the Dampier Archipelago neared completion. Other work was carried out on Barrow Island, Boodie Island, Bedout Island and the Lowendal Islands. Work on islands in Shark Bay was planned, to provide data for the preparation of a management plan.

Publications

A list of publications appears in Appendix 10.

Planning

Each management plan requires a period of up to 12 months preparation. This can involve field visits; public participation - including workshops, surveys, extensive consultation with the local community during preparation of the draft; liaison with regional staff, other departments and organisations and the presentation of drafts to the Policy Directorate and National Parks and Nature Conservation Authority or Lands and Forests Commission, depending on the vesting.

Following the release of the draft management plan and the mandatory two month period for public submissions, the final management plan is submitted to the Minister for Conservation and Land Management for approval. Bush Fires Board approval is also obtained for each plan so that the Department of Conservation and Land Management obtains autonomy for fire management of the area concerned.

A policy statement was prepared during the year, formally describing these requirements for management plan preparation. The Principal Planning Officer presented briefings on the Department's management planning policy to the National Parks and Nature Conservation Authority, the Lands and Forest Commission, the Planning and Management Committee of the Western Australian Water Resources Council and the project team reviewing the Metropolitan Region Scheme.

Management plans that were completed or commenced during the year are:

Final plans approved:

Mooradung Nature Reserve	28 November 1985
Wyalkatchem Nature Reserve	21 January 1986

Draft plans prepared and released for public comment:

Forrestdale Lake Nature Reserve
 York-Northam Nature Reserve
 Lane-Poole Reserve
 Shannon Park and d'Entrecasteaux National Park

Draft plans commenced and currently being prepared:

Leeuwin-Naturaliste National Park
 Bengier Swamp Nature Reserve
 Cape Range National Park
 Ningaloo Marine Park
 Dampier Archipelago Nature Reserves
 Hamersley Range National Park
 Two Peoples Bay Nature Reserve
 Northern Forest Regional Plan
 Central Forest Regional Plan
 Southern Forest Regional Plan
 South Coast Regional Plan

In addition, Planning Branch is involved in the region study of the Busselton/Augusta area being co-ordinated by the State Planning Commission.

If the rate of management plan production is to be maintained it will be essential to continue to employ a small number of contract planners supervised by Planning Branch.

Planning Branch is developing a variety of approaches to management plan preparation. For example, the Lane-Poole Reserve is used by educational groups so an extensive resource section was included. The Forrestdale Lake Nature Reserve deals with water bird habitats so the technical data needed for decision making is included in the management plan. By contrast, the Cape Range National Park Management Plan concentrates on matters of immediate concern, such as access.

The common theme with all management plans is public participation. The details vary with each plan depending on the nature of the area and the demands placed on it. Workshops, surveys or field visits have been conducted to assist in the preparation of draft management plans for the Lane-Poole Reserve and Leeuwin-Naturaliste National Park.

Initiatives introduced to assist with the preparation and quality of plans were:

- a project team approach. Each planning team includes at least one operations person from the area, as well as one Planning Branch representative. This ensures that prescriptions are practical and that the management plan will be implemented in the most effective way.
- the development of a computerised reserve information system which has provided a summary of biological and physical resources and management problems for each reserve in the South Coast Region.
- a writing skills workshop attended by Branch staff to enhance the presentation of the plans, as skilled writing is an essential component in the preparation of management plans.
- printing costs have been contained by using a word processor that prints in camera ready format.
- the decision to distribute copies of each draft management plan free of charge has had to be reviewed. A charge will now be made for draft plans, dependent on the cost of printing.

In an administrative sense the major objectives were the formation of a Planning Branch with planning officers and technical staff, and the establishment of accommodation for the new Branch.

Planning Branch now has five planning officers and five technical support staff. Three of the technical staff are temporary and were initially employed by use of Commonwealth Employment Programme funds.

Accommodation was provided for the Branch at Murdoch House in Mt Pleasant and renovations were required for efficient use of office space. A total of four branches of the Department of Conservation and Land Management share this accommodation. In order to ensure that matters of mutual concern are dealt with, the Murdoch House Management Committee was formed to look after security, repairs, telephones and the monitoring of the budget. A member of Planning Branch participates in this Committee.

TECHNICAL SERVICES

Recreation and Landscape Planning

The Recreation and Landscape Branch provides regional and district staff with specialist advice and assistance on landscape and recreation planning, design and management. It is staffed by two landscape architects and two other officers.

During 1985/86 the Branch provided assessment, planning and design assistance on a wide range of site projects in national parks, State forests and other reserves. These were in co-operation with regional and district offices and are listed earlier in this Report.

Branch officers were also heavily involved in the preparation of management plans, also described earlier in this Report.

Technical Advice and Assistance

During the year, the Branch prepared design specifications and processed orders for a large range of Departmental signs. The Branch also prepared and circulated guidelines pertaining to the design and placement of signs (both routed and wooden signs and metal symbols) on land managed by the Department.

Technical information was also provided on matters ranging from trail and boardwalk construction to landscape rehabilitation and timber harvesting operations.

Staff Training

During the year Branch officers participated in several in-service training programs/seminars, including:

- . A two day recreation training program for second year field cadets.
- . South Coast Region seminar.
- . District managers' seminar.

Public Liaison

Branch personnel represented the Department in a number of ways during 1985/86 including:

- . Membership of seven inter-departmental committees or advisory groups - Expedition Skills Training Committee, Outdoor Pursuits Course Advisory Committee, WA Week Trees Committee, Junior Park Rangers Advisory Board, Outdoor Education Committee, Star Swamp Advisory Committee and the Water Resources Council's Water Conservation Manual Working Party.
- . Involvement in organising and running of three outdoor expedition skills courses in association with the Department for Sport and Recreation and Education Department.
- . Participation in Arbor Day activities.
- . Talks to several community groups and public seminars.
- . Participation in external training programs including a landscape rehabilitation course at Muresk and a Farm Management Society field day.

Achievement of Objectives

The shortage of staff prevented the Branch from fully achieving its objectives during the year and because of this a number of requests for specialist planning and design could not be carried out.

Fire Protection

The Fire Protection Branch provides a fire control system capable of protecting recognised forest values from serious damage. The system must be compatible with the dominant land use in any area and achieved with economic efficiency.

Policy and Plans

During 1985/86 the Branch produced a draft fire policy to cover all lands vested in the Department. The major objective of the plan was to protect the community and environmental values of this land from wildfires and to use fire to achieve land management objectives in accordance with designated land use priorities. Currently this draft policy is being circulated within the Department for comment before being submitted to the Policy Directorate.

A format has also been prepared for interim fire protection programs for national parks and nature reserves and considerable assistance has been given to regions to develop and implement these programs. Currently 12 programs are in various stages of preparation.

Fire preparedness plans have been developed and improved in all regions, but with particular emphasis in the Greenough, South Coast, Wheatbelt and Metropolitan regions. Twelve individual national park fire control working plans have been written and fire control arrangements have been brought to a much more satisfactory level.

Intermediate fire training courses have been conducted for 70 mid-level operations and specialist staff. Regional Fire Protection staff have conducted local training and coaching sessions and a training manual for fire fighters has been published. Training courses for 12 navigators and incendiary machine operators were held in September 1985 and 20 pilots attended an induction course in October. Branch staff have also been included in a wide range of training activity with outside bodies such as the Bush Fires Board and the Police Department.

Services

The Branch provided the following services to districts and regions:

- . Detection -- Nine aircraft were employed on fire surveillance duties at six bases in the south-west portion of the State. A total of 7023 hours were flown at a cost of \$482 740. Four lookout towers in key plantation areas were manned and a further 20 towers were maintained to provide emergency back-up to the aircraft.

- . Weather forecasts -- Forecasts were supplied daily for nine locations in the South-West during the fire season by a private meteorological company at a cost of \$43 600.
- . Computer services -- Daily forecasts, periodic updates and fire behaviour data are entered in the Department's computer to assist district staff in the complex calculations of rates of fire spread.
- . Aerial prescribed burning -- Two fixed wing aircraft and a helicopter were contracted to carry out aerial prescribed burns. A total of 406 hours were flown at a cost of \$200 900. Further details are given in Appendix 11.

Research and Development

Operational research has concentrated on development of techniques, equipment and systems for fire management of the various lands managed by the Department. Increasing use is being made of medium expansion foam in mop-up and fire suppression operations. Pumper equipment is being standardised, and incendiary and ignition systems are being developed for fixed and rotary winged aircraft. Landsat imagery is being used to develop fire history of various remote national parks and nature reserves. A remote automatic weather station has been built and is currently being tested at Mount Dale.

Equipment

An inventory of Departmental fire fighting equipment is given at Appendix 12.

Suppression

The fire season was of average duration and it was relatively mild apart from the hot spell at the end of January. This helped to keep the number of wildfires to the average number. The number of deliberately lit fires caused concern particularly in Collie, Mundaring and Wanneroo districts.

Details of wildlife suppression for 1985/86 are shown in Appendix 13. A large fire occurred during extreme weather conditions north of Yanchep pine plantation in January of this year. The fire was significant since practically all Departmental resources were committed and additional assistance was required from State Government resources and the Australian Defence Forces via the State Counter Disaster Committee.

Environmental Protection

The Environmental Protection Branch is responsible for the evaluation of mining proposals, dieback protection, protection of rare flora, control of weeds and feral animals, and monitoring of insect outbreaks. The staff of five are involved in preparation of policies, procedures for evaluation, guidelines and conditions, monitoring, provision of information, educational material and staff training.

A policy for use of basic raw materials from land managed by the Department and a South Coast dieback protection plan were accepted by the Policy Directorate during 1985/86. Many applications for mining tenements were processed, after field inspection. Standard conditions for exploration and mining were prepared. A register of the gazetted rare flora for the forest regions was prepared and copies were distributed to regional and district offices, and branches. Surveys for dieback, provision of sampling kits to ranger staff and training sessions were held. Liaison with regions and districts was maintained by field visits and inspections.

More than half of the Branch's staff time was taken up with mining issues. The area is politically sensitive, Government policy for mining in national parks is under review, and the stakes are high. There is a major backlog of applications. It is expected that applications for tenements will increase substantially. Because of this, Branch input into other areas of concern has been and will continue to be inadequate. Additional staff resources have been requested.

Silviculture

The Silviculture Branch is a new branch of the Department with a primary role to provide expert advice on the tending of hardwood and softwood forests and manage seed supplies and nurseries. Key functions include the development of silvicultural strategies to meet the various management objectives on forest land, the translation of research information into operational guidelines, staff training and monitoring of the standards of silvicultural practice. The Branch has a staff of six.

During 1985/86:

- hardwood silvicultural guidelines for two hardwood forest types were published together with a training pamphlet applicable to jarrah forest silviculture
- a number of training schools were held at regional and district level on jarrah silviculture
- the work on improving jarrah stands (JSI) for timber production, largely through selective thinning, was continued
- a task force of staff from Silviculture, Inventory and Research branches commenced work on a karri growth model
- a review was completed for pine resources coming available to industry
- a survey of pine silviculture training needs was done
- a review of current pine thinning and pruning strategies was started.

Nurseries and Seed Supply

Production from the Department's nurseries and seed store was summarised earlier in this Report. A major initiative was the production of improved genetic material in the form of pine cuttings, with the eventual aim of higher productivity from plantations.

A cool room for seed storage came into operation at Manjimup to complement the extraction, cleaning and grading activities which already exists there. A scrub seed orchard was established to provide a cheaper, more reliable source of seed of a variety of species.

A review of seed store source and supply was begun with a view to rationalising the range of species collected, improving efficiency of collection, and ensuring that it has appropriate genetic diversity or quality.

Information Services

The Information Branch is responsible for the various communication functions of the Department, particularly publications, displays, media relations, audio-visual production, education and interpretation of the natural environment. It provides an advisory service for trees and re-vegetation on rural landholdings, and co-ordinates Departmental public participation programs.

Advisory Services

The demand for the rural advisory service continued at the same level as the previous year, reflecting a strong interest in the farming community to establish trees and other species for prevention of soil erosion, provision of shelter and fodder, amelioration of salinity, and for nature conservation and aesthetic reasons. The rural advisory officers worked closely with the Department of Agriculture and other agencies and farmer groups, as a means of spreading their expertise further.

There was a concerted effort to solve previous problems with the direct seeding of native trees and shrubs, through a co-operative program of research and field trials. The failures of 1985 were followed by a larger experimental program in 1986.

The advisory service declined in staff strength in 1985/86, which forced a cut-back in the handling of urban and home garden enquiries.

Publications

A high priority in 1985/86 was the updating and new production of recreation and education publications. Site development and widespread promotion of national parks and forest recreation areas has caused a rapid increase in demand for information and available publications. The Publications Section launched a new standard of national parks brochures, and started a new series and a book for forest sites.

Technical publishing increased during the year, with a greater frequency of technical reporting. A new internal and land management oriented technical bulletin, called Landnote, was started.

The increasing frequency of release of draft management plans required greater editorial input. Branch officers were able to help some regional offices boost their own publications output. In all, the Department has about 400 publications on offer.

A list of publications produced in 1985/86 appears in Appendix 22.

Education and Interpretation

There was a change in staff and direction in 1985/86 which resulted in greater attention to visitor information and interpretation of the natural environments in national parks. A tangible result has been the production of displays for Kalbarri, Cape Range, Millstream-Chichester and Hamersley Range national parks, and a new style of national park brochure. Also, there was a major effort in the Southern Forest Region to update on-site information in forest areas.

The secondment of an experienced science teacher from the Education Department has allowed a continuation of past initiatives in forest awareness and field ecology and given greater guidance to Departmental officers in their servicing of local schools. Planning was completed for a new series of school project materials, called Resource Notes.

Displays

Major exhibits for the year were the Department's attendance at the Holiday WA Expo to promote recreation in southern forest areas and national parks, and displays on a forest management theme for the Manjimup museum and timber park.

Media Relations

A change in policy to encourage closer liaison with the media at the regional and district level has resulted in a greater public exposure for the Department, and a more favourable balance between positive, informative stories and critical articles and letters.

Public Participation

The concerted effort to involve the public in management planning and decisions, far in excess of the formal requirements under the legislation, has proved rewarding for both the Department and the groups concerned. During 1985/86 several advisory and consultative committees were formed to assist the Department in resolving contentious issues.

An initiative by the WA Conservation Council to foster 'friends groups' for individual national parks, was followed up with the formation of Friends of the John Forrest National Park and ranger involvement in existing groups.

Inventory

The Inventory Branch has various responsibilities in the monitoring of the forest resources:

- . providing wood resource information for the purposes of yield regulation; formulating policies for the development of wood using industries; preparation of logging plans; and estimation of forest growth.
- . providing maps of specific land and forest attributes (e.g. soils, vegetation) which are used for the development of prescriptions for forest operations.
- . maintaining historical records of the progress in management operations.
- . updating rolling, four year plans for logging operations.

- . in co-operation with the Mapping Branch, preparing maps showing the distribution of areas infected by dieback disease for lands where operations with the potential to move soil are planned.
- . providing services to district staff in demarcation of dieback infections on the ground and in training in dieback recognition.

Forest Resource Measurement

Cut-over native forests totalling 23 500 ha were sampled and yield estimates derived for the preparation of logging plans. The regrowth component of 1 100 ha of selective cut karri was sampled to gauge the potential for a small sawlog industry. Thirty-five of a total 200 permanent plots established in even-aged karri regrowth were remeasured on schedule. The data from a series of measurements on these plots will contribute to the development of a karri growth model. A task force has been assigned to work on this project.

A sampling system designed to estimate out-turn from pine thinnings by log product was developed and implemented in trial areas in both radiata and pinaster stands. Approximately 3 000 hectares of pine forests were routinely sampled after thinning and the data was used to update resource information.

Land Classification

A vegetation map of the Mitchell Plateau area of the Kimberley was compiled.

About 22 000 ha of northern jarrah forest were classified according to the Havel vegetation types using air photo interpretation and ground survey. The Havel categories are correlated with wood production capacity and also provide an indication of potential impact should these areas be infected with dieback.

Operational Control

For all forest types in the Central and Southern Forests Regions, supplementary air photography was used to map the boundaries of logging areas for recording in the Hardwood Operational Control System (HOCS). The Branch introduced further modifications to the system to better meet operational needs.

More than 100 truck loads of jarrah logs were measured to determine weight/volume conversion factors. The factors are used to control the intake of sawlogs at Deanmill in the Southern Forests Region.

Operational Planning

A four year logging plan was prepared for the major hardwood mills in each of the three forest regions. A more detailed one year plan was also produced in the Southern Forests Region. Long term yield estimates were prepared for radiata and pinaster plantations in the Northern and Central Forest Regions.

Disease Management

Large scale colour photography is used to detect dieback infections from the air. Prior to 1986 photographic missions were flown by departmental staff to acquire 70mm format photography. In 1986, the 70mm system was abandoned and replaced by a 230mm format system operated by staff of the Department of Land Administration. The Geographic Information Group developed a computer technique for automating the production of dieback maps from interpreted 230mm format photographs.

32 000 ha of State forest and four national parks in the South Coast Region were photographed in 1986. This area was substantially less than the area targetted for photography, due to unusual weather conditions in the autumn of 1986. Interpreters based at the three forest regional centres completed dieback maps covering 25 500 hectares of forest and produced first stage maps for a further 13 000 hectares. This coverage is considerably less than is needed for operational planning.

Technical Information Services

The map based Forest Management Information System (FMIS) continued to be an extremely valuable tool for providing information for management planning and for response to strategic and political enquiries. The data base was further developed to meet user needs. The system itself is being re-written in a form which will be compatible for use with other geographic information systems.

Statements of the wood resources within the production zones of State forest were produced in preparation for a reformulation of the policies and strategies regulating supply to the wood using industries. Also the Branch has been involved in the preparation of regional plans which will detail the Department's intentions for land management over the next five years.

The Intergraph workstation was used continuously to provide computer generated geographic information to support a wide range of departmental projects.

Training

Staff provided training to departmental personnel in air photo interpretation, vegetation assessment, technical inventory systems and field procedures.

Mapping

The Mapping Branch is responsible for all mapping in the Department whether they be for land tenure, land management, field operations (topography), publications and displays. It is working to an objective of total map coverage for all lands managed by the Department.

Given a relative decline in funding and staff, and the need to provide much better mapping for national parks and nature reserves, it was concluded that a redefinition of the main roles of the management map series was needed. The program of review and development was given some urgency.

For instance, the following strategies came under consideration:

- . slower progress in design and implementation of alternative map coverage
- . mapping products formerly seen as essential may be reduced
- . the range of products and services could be rationalised
- . reduction in production standards
- . application of new techniques and systems

The mapping review was continuing as at 30 June 1986.

The Branch responded to the greater demand for mapping for external consumption -- management plans, recreation guides, and displays -- and worked to a closer liaison with Information and Planning branches. The copyright and royalty question was given attention, as a project of the State Survey and Mapping Committee.

Computer Services

A major activity during 1985/86 was the completion of a computerised hardwood logging system. A summary of logs that have been delivered to mills is entered into the computer. Contractor payments for fallers and truckers are calculated and invoices sent out to mills for payment of royalties. The new system has reduced the paperwork required by mills and is providing Departmental staff with faster access to information about field operations and will allow greatly improved control of the large royalty payments collected for the Government.

A computerised system recording and reviewing accidents was implemented, with benefits for the department's safety program. This will allow the analysis of accident data to detect trends and improve the overall safety of operations.

A records management system was installed and work is proceeding to rationalise the titles used in the Department's filing system so that the new computer system can be used to best effect. This will improve the efficiency of file movements. The system is also being used to store and retrieve research articles for the Research Division. This will improve the efficiency of literature searches done by research staff.

The computerised general ledger system has been improved in readiness for the 1986/87 financial year. The new features will allow the accounting system to more accurately reflect the structure of the Department and streamline the budgeting process.

Thirty-one micro computers were installed; about half in the Research Division to improve the storage and analysis of data and for writing reports. Many are used in Head Office for word processing and several in other areas for specific tasks such as economic analysis.

The Department's Perkin-Elmer 3240 computer was enhanced during the year to handle the increasing workload. New equipment was added to speed up scientific calculations and a new disk drive was installed. A further seven terminals and four remote printers were added for the new systems and the data communications network improved to service these. Four graphics terminals were purchased for use in the Geographic Information System.

Further activities of the Branch were restricted by the resignation of four staff members during the year. Contract assistance was needed to complete changes to the general ledger system.

Library

A Library Committee was formed and held regular quarterly meetings. Topics discussed included proposals for a Como library information centre; purchase of computer hardware; general progress of library computerisation; and the introduction of CALM ALERT and its effectiveness as opposed to journal circulation.

A database management package was purchased and installed on an IBM PC. Work has begun on the input of library data. This system will enable ready access to information and savings in library staff resources. Further discussions for a centralised library catalogue system on the proposed VAX, making information available to all Department officers, continued.

A core set of journals for display at Dwellingup, Manjimup and Como research centres was established. Book collections at divisions, regions and research centres were also established, with specific clerical staff assigned in each area. Promotion of computerised literature searches using DIALOG database was introduced.

The Library became a dialup member of the National Library of Australia's Australian Bibliographic Network database giving access to bibliographic and holdings data for acquisitions and general collections, and access to locations for interlibrary loans.

The Library also became a member of DIALMAIL, a world electronic mail service. It is hoped that information obtained from DIALOG searches can be downloaded using the DIALMAIL service at a cheaper rate than through the cost of an on-line printout.

Brochures on the Library's services, computer literature searches and a list of current journals held by the library were produced and a display on the new library building was constructed. CALM ALERT was introduced and produced monthly.

Amalgamation of the library collection continued with the combining of annual reports and journals.

ADMINISTRATION AND FINANCE

Land and Wildlife Administration

The Land and Wildlife Administration Branch provided the following services:

- . processing land transactions -- acquisitions, vesting changes, leases and alienations
- . determination and recording of land tenure
- . issue of fauna and flora licences and permits
- . processing offences under the Conservation and Land Management and Wildlife Conservation Acts
- . processing mining applications
- . control of beekeeping

Details of land transactions are given in an earlier section -- The Land Estate. During 1985/86 the Branch, for the first time, had to deal with the complexities of defining marine park boundaries for the proposed Marmion Marine Park. Work was commenced on a computerised database for all lands managed by the Department.

Under the Wildlife Conservation Act all flora in the State of Western Australia in the pteridophyte (ferns and fern allies), gymnosperm (conifers and cycads) and angiosperm (flowering plants) classes are protected against being taken from the wild (see Government Gazette 18 April 1980). Further, protected flora of 132 taxa listed in the Government Gazette 12 March 1982, growing in a natural state are declared to be rare throughout W.A.

The taking of flora from the wild is controlled by the issue of a licence. During 1985/86 1476 licences were issued for purposes which included commercial operations on Crown land, commercial operations on private land, scientific and educational, and personal enjoyment.

It has been recently estimated that there are 700 populations of declared rare flora; 30 per cent on land managed by the Department, 20 per cent on private farm land, 14 per cent on road verges and the remainder on other categories of Crown land. To protect the populations on private land about 150 farmers have been contacted, and in six cases land purchase or exchange has been agreed to.

As at 30 June 1985 there were 66 species of amphibia, 486 species of birds, 395 reptiles, 70 marsupials, 69 other land mammals, and 37 species of marine mammals which were known to be indigenous to W.A. All fauna are protected with the exception of wild dog (Dingo) and invertebrate fauna (other than Jewel beetles). No protected fauna can be taken from the wild without a licence.

The fauna declared to be rare or otherwise in need of special protection were reviewed to correct some taxonomic irregularities and to add one mammal (Sminthopsis psammophila) and one reptile (Brachyaspis atriceps). The new list, which appeared in the Government Gazette 22 November 1985, is appended (Appendix 14).

The status of White Swans (Cygnus oler), Peafowl (Pavo spp) and Pheasants (Phasianus) as species declared to be fauna, did not change.

Open seasons were declared in 1985/86 for finch trapping, waterfowl hunting, waterfowl population management and Sulphur-Crested Cockatoo management. Details are provided in Appendix 15. Existing open seasons were in force for Red Kangaroo, Euro, Emu, Agile Wallaby, Grey Kangaroo, White-tailed Black Cockatoo, Black and Pied Cormorant, Brown and Stubble Quail, Red-capped (Western King) Parrot, Ring-necked (Twenty-eight or Port Lincoln) Parrot, Western Rosella, certain species of birds of prey, crow species, Silvereyes, and various venomous front-fanged land snakes and all Sea Snakes.

Many thousands of licences were issued for the taking, keeping, export or import of fauna and fauna products. Details are provided in Appendix 16.

Offences

Thirteen breaches of the Forest Disease Regulations under the Conservation and Land Management Act were reported. In five cases, offenders were prosecuted and fines amounting to \$380.00 were imposed.

There were nine cases of illegal removal of forest produce for which royalty amounting to \$631.62 was recovered. In one case, the offender was prosecuted and a fine of \$450.00 was imposed.

There was also one case of unauthorised clearing of State forest which resulted in payment to the Department of \$19 616.40 by the offender as compensation for loss of forest values.

Five breaches of the Forest Regulation pertaining to unlawful carrying or use of firearms in State forest also occurred. In four cases, offenders were prosecuted and fines amounting to \$160.00 were imposed.

Warnings were issued to all offenders not prosecuted.

Two breaches of the National Parks Regulations under the Conservation and Land Management Act were reported. In both cases, the offenders were prosecuted and fines amounting to \$350.00 were imposed.

Personnel

The Personnel Branch assumes responsibility for the Department's human resource program. Its duties include:

- . staff planning, appointments and transfers
- . management and staff development, and in-service training
- . industrial relations and liaison with unions
- . staff appraisals and records
- . staff safety, health and welfare

Staff

The Department conducted its many operations through a total of 1416 people, made up of 373 employed under the Public Service Act, 364 employed under the Conservation and Land Management Act and 679 wages staff. In addition, 13 contract persons were employed for varying periods during the year by the authority of the Minister.

A breakdown of total staff numbers by division, branch and region is provided in Appendix 17, and a further breakdown of regional and district staff by employment category is shown in Appendix 18. To gauge the staff makeup from an equal opportunity viewpoint, a further breakdown by level and gender is shown in Appendix 19.

During the year there were:

- 1 new appointment
- 6 appointments made permanent
- 7 retirements
- 20 reclassifications
- 28 promotions

Further details are provided in Appendix 20.

Industrial Relations

A major priority for 1985/86 was to address and resolve industrial matters resulting from the amalgamation of agencies. Some of the apparent anomalies were simply different work conditions between groups doing very similar work, but are members of different unions or industrial associations. In other cases the amalgamation provided the opportunity to redress industrial matters that had been outstanding.

While the progress to resolving these problems was significant and encouraging, many are still outstanding and will take time to be dealt with.

Training

This year's specific challenge was to equate the increasing demands for wide ranging training with tightening financial constraints. It was met by closer examination of training needs and by stricter training evaluation. Whilst no increase in the volume of training was feasible, training was better targetted and more effective.

Cadets

Eleven cadets completed the first year of their training in November 1985. They were the first group to be taught the syllabus revised according to post-amalgamation needs. Many subjects have been revised and four - zoology, photography, computing and landform and utilisation - have been added to achieve a balanced Certificate in Conservation and Land Management. It is anticipated that the course review due in November 1986 will produce a definitive syllabus in the light of present Departmental needs.

A new group of 12 cadets, selected from 169 candidates in December 1985 commenced their course at College of the South West, Bunbury in February 1986.

Twelve second year cadets including one mature-aged entry, commenced at Dwellingup in January 1986. The second year syllabus is most certainly overloaded and must be subject to continual pruning, leading to a better-weighted course in 1987. As always, the emphasis lies on a full program of relevant practical work. Highlights have been a fortnight's project in the Stirling National Park, which resulted in up-graded recreation facilities at the Bluff Knoll turn-off, the construction of two bridges at Dwellingup, full participation in the autumn burning program, and a week with wildlife officers. These were in addition to the traditional working periods at pine districts and in the Southern Forest Region.

Twelve cadets who completed their second year cadetship in December 1985 received their Certificate in Conservation and Land Management at a graduation ceremony on 24 April 1986. The ceremony was held at Regional Headquarters, Bunbury. The prizes and certificates being presented by Mr David Smith, MLA. Eleven cadets were appointed forest rangers, ten being posted to operational districts and one to field research. The Keynes Memorial Prize was awarded to Tammy Beltz and the Executive Director's Prize to Jason Goff.

A wide range of inservice training was offered and well supported. Traditional courses relating to fire control, safety, and felling continued to satisfy ongoing needs. Others such as driving training instructors and basic instructors were directed at widening training skills. Others such as field ecology courses, outdoor expedition skills, and search and rescue responded to evolving Departmental training needs.

Public Service Board forestry cadetships were awarded to two students in January 1986. Awardees were Ms K Cooke and Mr J Lloyd. Currently five forestry cadets are studying at the Australian National University and one at Melbourne University.

Safety, Health and Welfare

The year 1985/86 was the first full year for the amalgamated Department and the all-accident rate for the period was an improvement over the previous two years. Details are shown in Appendix 21.

Accident prevention activities during the year included:

- 5 two-day general safety training schools for 90 personnel.
- 12 three-day schools for 123 St John's first aid attendants.
- 559 personnel audiometrically tested.
- 350 personnel inducted in manual handling.
- 96 operators, supervisors and managers trained in the prevention and management of RSI.

A new Accident Investigation and Reporting Manual was introduced together with a computer program to store and analyse the accident data.

The Department was host to the opening function of the W.A. Safety Week which was launched by the Hon D K Dans, MLC, Minister for Works and Services, on 17 March 1986 at the Como State Operations Headquarters.

The Allegator club for persons who saved their legs from severe injury by wearing safety trousers was launched on this occasion by the Executive Director.

Engineering Services

The Engineering Services Branch has a responsibility for fleet management, housing and building, and stores; and provides a consultancy service to the Department on mechanical, electrical, building, telecommunications, accommodation, properties and stores matters.

Fleet Management and Workshops

The Department continued the upgrade of its vehicle fleet with 199 new replacement and seven new additional vehicles being put into service. Most of the rundown fleet ex the National Parks Authority has been replaced.

Included in the fleet upgrade were a larger bulldozer and a low loader prime mover for fire protection in the Blackwood Valley and eight heavy duty 4x4 fire trucks.

The ownership costs of the fleet declined in real terms despite adverse currency movements and rising fuel costs. This continuing trend reflects the Department's support of sound fleet management practice.

Regional workshops at Manjimup, Collie and Mundaring carried out normal fleet maintenance, major plant repairs and specialised equipment development and fabrication. Ten small district workshops in the forest areas undertook normal fleet maintenance. Private workshops were used where Departmental workshops could not provide the necessary service.

A total of 31 tradespersons and 16 apprentices are employed in Departmental Workshops.

Staff commitment to fleet management and workshops was equivalent to seven officers, including 0.2 of an officer loaned from the State Engineering Works and 0.7 of an officer seconded from the Water Authority of WA.

Housing and Building

A works program of approximately \$1,000,000 was completed. Major jobs included additions to Wanneroo District Office, a depot at Esperance and housing at Exmouth and Fitzroy.

Investigation and preparation of briefs for future works continued. Notable among these were the continued planning for the Ningaloo Marine Park visitor centre and associated support buildings and services. This is a Bicentennial project.

Commitment to capital work in hand and future works was equivalent to 1.4 officers including 0.25 of an officer funded by the Office of Redeployment and Retraining.

Responsibility for housing rentals was transferred to the Branch late in the financial year and a part-time temporary appointment was made to take-on these duties together with asset register establishment and housing and building insurance. With other housing responsibilities already with the Branch, commitment of staff was equivalent to 1.1 full-time officers.

Stores

The Stores and Equipment Officer has undertaken systems changes to improve stores management; essential for coping with the increased stores throughput of the Department.

A computer supported stores management system was close to implementation. As part of the system, a catalogue allows rationalisation of stocklines, improved user access and accountability. The system can be cross referenced to the Department of Services - State Supply systems.

Staff commitment to stores management was equivalent to 2.7 salaried officers and 5 wages personnel (3 with courier duties servicing the various Departmental offices in the Metropolitan area).

Consulting Services

A multifaceted consulting service was maintained with difficulty.

Mechanical engineering consultanting was limited due to increased workloads in other areas, particularly fleet management. Power generation, bore and reticulation projects were completed and development work continued on fire pumpers and elevated platforms. The most unusual project was the development of a typhus weed (bullrush) harvester which shows considerable potential to control this weed which is choking many wetlands.

Electrical consultanting was provided to power generation projects as required, including the design and manufacture of effective load banks for the Millstream and Hamersley power stations.

Commitment to these consultant services was equivalent to 2.4 officers including 0.7 of the officer loaned from State Engineering Works.

Consultant work on building matters, telecommunications, accommodation and properties was provided to the Department by the equivalent of 0.9 officers.

Miscellaneous responsibilities including Operations Headquarters administration and security, Branch administration, training and insurance required the equivalent of four officers including 0.3 of the officer seconded from the Water Authority and 1.2 wages employees.



office of the
AUDITOR GENERAL

REPORT OF THE AUDITOR GENERAL FOR WESTERN AUSTRALIA

OUR REF: 0317001

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT
AUDIT OF ACCOUNTS

The accounts of the Department of Conservation and Land Management have been audited for the year ended June 30, 1986.

The lack of appropriate internal controls resulted in a significant number of incorrect salary payments.

In my opinion, except for the above matter :

- (i) A Statement of Collections paid to the Consolidated Revenue Fund and the Statement of Receipts and Payments of the Conservation and Land Management Trust Fund are based on proper accounts and records and fairly present the financial transactions for the period; and
- (ii) the controls exercised by the Executive Director were adequate to provide reasonable assurance that the receipt and expenditure of moneys and the acquisition and disposal of assets were in accordance with the Conservation and Land Management Act, 1984.

B. BRYANT
ACTING AUDITOR GENERAL

December 31, 1986

FINANCIAL STATEMENTS

CONSERVATION AND LAND MANAGEMENT TRUST FUND
STATEMENT OF RECEIPTS AND PAYMENTS
FOR THE PERIOD JULY 1 1985 TO JUNE 30 1986

RECEIPTS

<u>'84/85</u>		<u>'85/86</u>
1 140 800	Balance Brought Forward (1)	1 645 679
2 859 377	Consolidated Revenue Fund	51 176 000
744 090	Mining Compensation	1 213 923
295 000	Main Roads Department Grant	137 688
7 633	Community Employment Program	1 146 377
-	Youth Trainee Scheme	371 837
2 250 000	Private Borrowings	14 897 731
640 854	Sale of Assets	830 904
368 610	Recoupable Projects	1 053 681
-	Wildlife Special Projects Recoups	167 098
1 090 470	Income from National Parks	1 058 629
-	Other	400 015
48 529	Nature Conservation & National Parks A/c	43 099
<u>9 445 363</u>		<u>74 142 661</u>

PAYMENTS

2 233 370	Capital -		
5 284 310	Hardwood Forests - Est. & Tending		2 217 305
685 853	Softwood Forests - Est. & Tending		7 700 877
1 697 400	Access Road Construction		967 535
1 926 016	Land Purchases		826 880
	Housing & Buildings		2 054 580
	Plant & Equipment	3 860 028	
1 899 499	Less Depreciation	<u>1 740 000</u>	2 120 028
5 198	Sawmilling & Seasoning Plant		<u>27 433</u>
			15 914 638
3 731 646	Plant Workshop - Operating Costs		-(39 683)
(74 450)			
	Recurrent Expenditure -		
	Salaries (2)	23 216 786	
7 831 518	Less - Charged to Capital	<u>1 500 000</u>	21 716 786
	Central Administration (2)	17 685 674	
2 659 467	Less - Charged to Capital Works	<u>932 000</u>	16 753 674
4 427 817	Environmental Protection		4 811 339
1 683 183	Engineering Services		1 942 560
1 757 496	Recreation & Tourism Services		2 589 755
1 779 951	Planning & Research		2 036 412
3 778 646	Commercial Operations		5 907 040
288 744	Information Services		452 983
34 318	Nature Conservation & National Parks A/c		45 441
-	Refund to Tsy of Funds Incorrectly Credited in 1984/85		7 632
<u>(98 652)</u>	Cash Order Balance		<u>305 743</u>
7 799 684			72 444 320
1 645 679	Balance June 30 (3)		<u>\$ 1 698 341</u>
=====			=====

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT

COLLECTIONS PAID TO CONSOLIDATED REVENUE FUND

JULY 1 1985 TO JUNE 30 1986

1984-85 \$		1985-86 \$
	Royalties	
9 847 250	Logs	10 955 726
1 603 534	Chip Logs	3 411 155
-	Sleepers	-
609 735	Poles and Piles	501 212
27 927	Mining Timber	29 753
13 880	Firewood	20 639
65 152	Posts	78 518
85 770	Sandalwood	99 652
<u>81 021</u>	Miscellaneous	<u>25 432</u>
12 334 269		15 122 087
	Pine Conversion	
3 989 916	Pine Logs	5 554 695
<u>45 488</u>	Sawn Pine	<u>182</u>
4 035 404		5 554 877
	Hardwood Conversion	
<u>795 414</u>	Logs	<u>1 839 926</u>
795 414		1 839 926
	Other Sales, Fees and Recoups	
432 498	Seeds and Trees	489 514
108 475	Inspection Fees	112 207
108 703	Rents and Leases	99 629
12 580	Wildlife License Fees	72 627
13 700	Sale of Tags	48 532
1 825 078	Miscellaneous	2 177 386
199 648	Workers' Compensation Recoups	270 437
<u>-</u>	Censorship Office Revenue	<u>27 725</u>
2 700 682		3 298 057
19 865 769	TOTAL	25 814 947
=====		=====

(1) Includes -

Nature Conservation & National Parks Trust Account	\$118 008
(30/6/85)	

(2) For 1985/86 the Department of Conservation & Land Management was required to account for the Salaries of the Minister's Office, Heritage Committee and Censorship Office as well as Central Administrative costs for the Minister's and Censorship Offices. These figures reflect those costs.

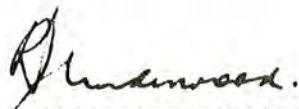
(3) Includes -

Nature Conservation and National Parks Trust Account	
(30/6/85)	\$118 008
(30/6/86)	\$115 666


(4) Private Borrowings - The outstanding principal at June 30 1985 was \$20 935 440. During the year loans with a face value of \$15 773 800, discounted to \$14 210 000, were raised. In addition, the Department assumed responsibility from the Industrial Lands Development Authority for loans totalling \$7 533 300 which related to the transfer of properties in the Kemerton area, and received \$687 731 from the Authority, representing the unspent portion of those borrowings. Interest, principal repayments and sinking fund instalments during the year amounted to \$3 416 352, \$810 731 and \$623 252, respectively. The outstanding principal at June 30 1986 was \$43 431 809. In addition, sinking funds held at Treasury and private banks totalled \$1 377 073.

NOTE:

The figures for 1984/85 in respect of the Forests Department, National Parks Authority and the Wildlife function of the former Department of Fisheries and Wildlife have been amalgamated with the figures for the Department of Conservation and Land Management to provide a comparison.



.....
R. Underwood
A/EXECUTIVE DIRECTOR



.....
I. J. Frame
A/ACCOUNTANT

October 20 1986

ROADSIDE VEGETATION CONSERVATION COMMITTEE

Establishment of the Committee

The Roadside Vegetation Conservation Committee (RVCC) was formed in 1985 in response to concern, expressed by local communities, the tourism industry, and the conservation movement, over the deterioration of roadside vegetation.

Originally established under the W.A. Land Resource Policy Council within the Department of the Premier and Cabinet, the RVCC is now convened by the Department of Conservation and Land Management. It replaces the Road Verges Conservation Committee which addressed similar issues between 1969 and 1983.

Terms of Reference

The terms of reference of the RVCC are: to co-ordinate and promote the conservation and effective management of rail and roadside vegetation for the benefit of the environment and the people of Western Australia.

Committee Membership

Dr D Bennett	(Chairman 1985 - resigned January 1986)
Mr J Blyth	(Chairman April 1986 -)
Mr P Hewett	(Deputy Chairman)
Mrs J Seabrook	
Mr K Lindbeck	(May 1986 -)
Cr C Moore	
Cr J North	
Mr J Quilty	(1985 - resigned March 1986)
Mr J Robley	
Mr R Shaw	
Dr B Wilson	(1985 - resigned January 1986)

Staff

The Committee was serviced by a Secretary based in the Department of the Premier and Cabinet.

Activities

The inaugural meeting of the Committee was held on 27 November 1985, and subsequent meetings took place on 29 January 1986, 26 March 1986, 30 April 1986 and 28 May 1986. The latter was held at Toodyay and involved an excursion to view areas of interest together with local persons.

Working within the confines of its limited resources, the Committee has developed policies for the management of roadside vegetation and provided funds for two research projects by CSIRO, one on the use of roadside vegetation by vertebrate fauna and the other a bibliography relevant to road verge management.

An introductory brochure outlining the Committee's activities has been produced. A copy is attached for your information.

Finance

Funds for servicing the Committee were provided from the budget of the Department of Premier and Cabinet and the Main Roads Department.

During the financial year 1985/86, the funds expended were:

	Dept. of Premier and Cabinet	Main Roads Department	Total
Members fees, travel	4 000	nil	4 000
Publications	1 500	nil	1 500
Research	10 000	8 000	18 000
	<hr/>	<hr/>	<hr/>
	15 500	8 000	23 500
	<hr/>	<hr/>	<hr/>

Policies

1. To promote the protection and enhancement of native rail/roadside vegetation, so that these provide representative transects of the original plant communities especially in regions which have been substantially cleared. However, weed, vermin and fire control are necessary components of rail/roadside vegetation management.

2. To provide information to government, local government voluntary organisations and the public on the importance of rail/roadside vegetation for nature conservation, for farmland protection and as an amenity. To encourage these groups to take a greater role in conserving and regenerating rail/roadside vegetation.
3. To encourage the development of a rail/roadside network of flora and fauna conservation corridors to enable the nature transfer of plants and animals between more extensive areas of bushland. This may involve the promotion of voluntary set-back of fences or encouraging the repurchase of private land where the width of the vegetation corridor is inadequate.
4. To promote the development of fire management strategies for road and rail reserves which are appropriate to conservation of native vegetation while at the same time recognising the responsibilities of the managers.
5. To encourage research programs aimed specifically at the problems of rail/roadside vegetation.
6. To encourage public utilities to locate their services away from road and rail reserves. Where alternative locations are unavoidable, advise on methods to reduce the impact of their services on roadside vegetation.
7. To promote the training of rail/road builders and maintenance organisations in techniques for protecting roadside vegetation.
8. Provide an annual report on the Committee's activities and report to the Minister for Conservation and Land Management.
9. To develop a set of model by-laws for adoption by local government authorities for the conservation and effective management of roadside vegetation for the benefit of the environment and the people of Western Australia.

CONSERVATION AND LAND MANAGEMENT ACT 1984

REPORTS OF THE CONTROLLING BODIES

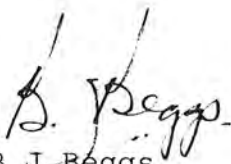
1ST JULY 1985 TO 30TH JUNE 1986

LANDS AND FOREST COMMISSION
NATIONAL PARKS AND NATURE CONSERVATION AUTHORITY
FOREST PRODUCTION COUNCIL

C/- Department of Conservation
and Land Management
50 Hayman Road
Como

The Hon B T Hodge, MLA
MINISTER FOR CONSERVATION
AND LAND MANAGEMENT

In accordance with Section 31(I) of the Conservation and Land
Management Act, Annual Reports of the Controlling Bodies are
presented for the period 1 July 1985 to 30 June 1986.



B J Beggs
CHAIRMAN
LANDS AND FOREST COMMISSION



N J Halse
CHAIRMAN
NATIONAL PARKS AND NATURE CONSERVATION AUTHORITY



S R Shea
CHAIRMAN
FOREST PRODUCTION COUNCIL

THE LANDS AND FOREST COMMISSION

The Lands and Forest Commission is established as a controlling body under Section 18 of the Conservation and Land Management Act 1984.

THE MINISTER RESPONSIBLE

The Lands and Forest Commission is responsible to the Minister for Conservation and Land Management.

THE FUNCTIONS OF THE COMMISSION

The functions of the Lands and Forest Commission are prescribed in Section 19(1) of the Act and are:

- (a) to have vested in it State forest and timber reserves and relevant land referred to in section 5 (g);
- (b) to develop policies to achieve or promote the objectives described in section 56 (1) (a), (b) and (e);
- (c) to consider, in accordance with section 17, any cancellation, change of purpose or boundary alteration in respect of land vested in it;
- (d) to submit proposed management plans to the Minister as provided in Part V in respect of land vested in it;
- (e) to monitor the carrying out of management plans by the Department in respect of land vested in the Commission;
- (f) to inquire into and to advise the Minister on any matter on which the advice of the Commission is sought by the Minister;
- (g) to provide advice, upon request, on matters relating to land vested in it to any body or person, if the provision of advice is in the public interest and it is practicable for the Commission to provide it;
- (h) with the approval of the Minister, to cause study or research to be undertaken for the purposes of paragraph (b).

THE POWERS OF THE COMMISSION

The Lands and Forest Commission does not have executive powers or functions. Its role is advisory but with direct approach to the Minister being allowed for.

THE OBJECTIVES OF THE COMMISSION

The objectives of the Commission are to maintain close liaison with the Minister and the Department of Conservation and Land Management in matters pertaining to those State forests and Timber Reserves which are vested in it.

COMMISSION MEMBERSHIP

The Lands and Forest Commission consists of three members who are appointed under the provisions of Sections 20 (1), 20 (2) and 20 (3) of the Conservation and Land Management Act as:

- (1) (a) 2 persons appointed by the Governor, on the nomination of the Minister; and
(b) the Executive Director.
- (2) One of the members appointed under subsection (1) (a) shall, on the nomination of the Minister, be appointed by the Governor as chairman and the other as deputy chairman.
- (3) The Minister shall not nominate a person for appointment under subsection (1) (a) unless, in his opinion, the nominee has a knowledge of, and experience in, matters relevant to the management of land for conservation, recreation and forest production.

APPOINTED MEMBERS

- (1) (a) Mr B J Beggs, ISO, Chairman
Mr N J Halse, Deputy Chairman

EX OFFICIO MEMBER

- (1) (b) Dr S R Shea, Executive Director, Department of Conservation and Land Management.

Re-appointments of the Chairman and Deputy Chairman for periods of one year from 22 March 1986 were approved by the Governor in Executive Council on 21 March 1986.

STAFF

The Commission is serviced by officers of the Department of Conservation and Land Management.

THE ACTIVITIES OF THE LANDS AND FOREST COMMISSION

The Lands and Forest Commission met on ten occasions during the year.

Important matters considered were:

PLANNING REQUIREMENTS FOR THE FOREST REGIONS

The planning process for lands vested separately in the Lands and Forest Commission and the National Parks and Nature Conservation Authority was considered. The need to avoid separate planning requirements for areas with different vesting was considered to be necessary. The issue was subsequently discussed at a joint meeting of the Commission and the Authority held on 13 September 1985.

VESTING CHANGES

The Commission noted an anomalous situation where under the provision of the Conservation and Land Management Act, changes to management plans required public involvement but vesting changes did not. It was resolved that this situation should be noted in the review of the Conservation and Land Management Act that was to be submitted to Parliament. Inclusion of other issues of land classification, errors in drafting and the requirements applying to necessary operations in the absence of working plans were also requested for inclusion in the review.

STOCKPILING OF COAL AT MUJA - USE OF STATE FOREST FOR THE OPERATION

Members of the Commission expressed concern that action had been taken to stockpile coal on State forest without prior reference from the Department to the Lands and Forest Commission in which the area was vested. At the same time, the Commission recognised that because of the anomaly in the current legislation there is no statutory requirement for such matters to be referred. Action is in train for this provision to be amended.

The Minister for Conservation and Land Management was subsequently informed of the objection and his approval was requested for the Department of Conservation and Land Management to negotiate with the State Energy Commission to provide an equivalent area of forested land. The negotiations were initiated later in the year.

AREAS OF RESPONSIBILITY FOR BUSHFIRE CONTROL

Following the serious bushfires that occurred near Wanneroo during January 1986, the Commission noted the urgent need to establish areas of responsibility for control in near-metropolitan areas. The Executive Director, Department of Conservation and Land Management subsequently discussed the situation with the Commissioner of Police and the Director, Bushfires Board. Resolution of responsibilities was achieved.

THE FOREST MANAGEMENT PROGRAMME

Provision of information for the public on management of the jarrah and karri forests was considered to be an essential activity of the Commission and following a request made, the Department of Conservation and Land Management undertook to prepare brochures that would meet this requirement.

FERTILIZATION OF PINUS RADIATA PLANTATIONS

The Commission endorsed a proposal by the Department of Conservation and Land Management to increase the growth rates of plantations with a large scale operation to apply fertilizer.

The advantage of this operation was seen to provide a large volume increment to existing plantations rather than to establish new plantations with higher costs being incurred.

JOINT VESTING OF NON-PRODUCTION AREAS OF STATE FOREST IN THE LANDS AND FOREST COMMISSION AND THE NATIONAL PARKS AND NATURE CONSERVATION AUTHORITY

To provide security of purpose of areas such as stream reserves, river reserves and road reserves, the Commission considered the desirability of joint vesting in both Controlling Bodies. However, a legal opinion obtained was that under the current legislation, such action would not be possible. Notwithstanding this situation, the Commission agreed to again consider the proposal at a future time.

THE BUDGET OF THE DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT

The Commission considered the stringencies that would apply to the 1986/87 Departmental Budget and noted the effect that the cut back of funds would have on revenue producing operations. The Commission also noted the situation that existed where returns from the hardwood production forests did not meet the costs of managing the forests.

VISIT BY THE COMMISSION

On 31st March and 1st April 1986, members of the Lands and Forest Commission accompanied the Hon Barry Hodge, on an induction tour of the Southern Forest Region. This followed Mr Hodges appointment when he succeeded the Hon Ron Davies as Minister for Conservation and Land Management.

CHAIRMAN'S REPORT

At the end of one full year of operation the Commission is concerned with the need to further clarify its role. This next year will provide the ultimate test with the proposed completion of the Strategic Management Plans covering the areas vested in the Commission and the Authority.

While there have been some problems evident from the bringing together of the three land management agencies, which now make up the Department of Conservation and Land Management, considerable progress appears to have resulted from the combining of the strengths of the three disciplines involved.

The consistent opposition of some groups to the continued multiple use management of the areas vested in the Commission is of concern. While it is convenient to highlight the limited area of forest available to the public in this State, this, I suggest, only serves to emphasise the need to benefit from as wide a range of uses of these areas as is compatible with the primary purpose of management.

The financial constraints facing Government will of necessity result in some rationalisation of the work possible in the forest areas. I believe however, it is essential to ensure that the planning and control of forest operations continues to maintain the high standards which have evolved over the years.

THE NATIONAL PARKS AND NATURE CONSERVATION AUTHORITY

The National Parks and Nature Conservation Authority is established as a Controlling Body under Section 21 of the Conservation and Land Management Act 1984.

THE MINISTER RESPONSIBLE

The National Parks and Nature Conservation Authority is responsible to the Minister for Conservation and Land Management.

THE FUNCTIONS OF THE AUTHORITY

The functions of the National Parks and Nature Conservation Authority are prescribed in Section 22(1) of the Act and are:

- (a) to have vested in it national parks, nature reserves, marine nature reserves, marine parks and relevant land referred to in section 5 (g) and to have the joint function provided for by section 7 (4);
- (b) to develop policies -
 - (i) for the preservation of the natural environment of the State and the provision of facilities for enjoyment of that environment by the community;
 - (ii) for promoting the appreciation of flora and fauna and the natural environment; and
 - (iii) to achieve or promote the objectives described in section 56 (1) (c), (d) and (e);
- (c) to consider, in accordance with section 17, any cancellation, change of purpose or boundary alteration in respect of land vested, whether solely or jointly with an associated body, in the Authority;
- (d) to submit proposed management plans to the Minister as provided in Part V in respect of land vested, whether solely or jointly with an associated body, in the Authority;

- (e) to monitor the carrying out of management plans by the Department in respect of land vested, whether solely or jointly with an associated body, in the Authority;
- (f) to advise the Minister on the development of policies for the conservation and management of the flora and fauna of the State, whether on public land or private land;
- (g) to inquire into and, subject to subsection (4), to advise the Minister on any matter on which the advice of the Authority is sought by the Minister;
- (h) to provide advice, upon request, on matters relating to land vested, whether solely or jointly with an associated body, in the Authority to any body or person, if the provision of advice is in the public interest and it is practicable for the Authority to provide it; and
- (i) with the approval of the Minister, to cause study or research to be undertaken for the purposes of paragraph (b).

THE POWERS OF THE AUTHORITY

The National Parks and Nature Conservation Authority does not have executive powers or functions. Its role is advisory but with direct approach to the Minister being allowed for.

THE OBJECTIVES OF THE AUTHORITY

The objectives of the Authority are to maintain close liaison with the Minister, the Department of Conservation and Land Management and the public in matters pertaining to those areas which are vested in it.

AUTHORITY MEMBERSHIP

The National Parks and Nature Conservation Authority consists of 14 members who are appointed under the provisions of Sections 23(1) and 23(2) of the Conservation and Land Management Act comprising:

- (1) (a) 4 ex officio members being -
 - (i) the Executive Director;

- (ii) The Director of Nature Conservation;
 - (iii) the Director of National Parks; and
 - (iv) the Director of Forests;
- (b) 10 persons appointed by the Governor on the nomination of the Minister of whom -
- (i) 2 shall be representative of voluntary organizations having a special interest in conservation, being organizations that are affiliated with the Conservation Council of Western Australia Inc.;
 - (ii) 2 shall be representative of voluntary organizations having a special interest in the use of land, flora and fauna for recreation purposes;
 - (iii) one shall be representative of tertiary educational institutions in the State and shall be a person with special knowledge of, and experience in, a discipline relevant to nature conservation;
 - (iv) one shall be representative of bodies or persons the members of which, by reason of their profession, are concerned with nature conservation;
 - (v) 2 shall be representative of local government and shall be at the time of nomination elected members of a local authority;
 - (vi) one shall be representative of fishing interests; and
 - (vii) one shall be a person employed in the Department, not being an ex officio member, whose duties relate principally to the management of land vested in the Authority.

- (2) One of the members appointed under subsection (1) (b) shall, on the nomination of the Minister, be appointed by the Governor as chairman and another as deputy chairman.

EX OFFICIO MEMBERS

- (1) (a) (i) Dr S R Shea, Executive Director, Department of

Conservation and Land Management.

- (1) (a) (ii) Dr B R Wilson, Director of Nature Conservation,
Department of Conservation and Land Management.
- (1) (a) (iii) Mr C D Haynes, Director of National Parks,
Department of Conservation and Land Management.
- (1) (a) (iv) Mr P N Hewett, Director of Forests, Department
of Conservation and Land Management.

APPOINTED MEMBERS

- (1) (b) (i) Mr N J Halse, Chairman
Dr J M Bailey
- (1) (b) (ii) Mrs M I Blackwell
Mr I J Maley
- (1) (b) (iii) Associate Professor A J McComb, Deputy Chairman
- (1) (b) (iv) Mr R Aitken, OAM
- (1) (b) (v) Mr J H Towie
Mr A J Fewster
- (1) (b) (vi) Mr W R Bailey
- (1) (b) (vii) Mr R Neal

Appointments of the Chairman, Deputy Chairman and members for periods of one year from 22 March 1986 were approved by the Governor in Executive Council on 21 March 1986.

CHANGES OF MEMBERSHIP

Because of his other commitments, Mr J L Mumme resigned from membership during the year. Mr J H Towie was appointed as a member for one year by the Governor in Executive Council on 21 March 1986 to succeed Mr Mumme.

STAFF

The Authority is serviced by officers of the Department of Conservation and Land Management.

THE ACTIVITIES OF THE NATIONAL PARKS AND NATURE CONSERVATION AUTHORITY

The Authority met on eleven occasions during the year.

Consideration was given to many issues and the more important of these are reported:

PREPARATION OF MANAGEMENT PLANS

Because of the statutory requirements for both the Lands and Forest Commission and the National Parks and Nature Conservation Authority to submit proposed management plans to the Minister, a joint meeting of both these Controlling Bodies was held on 13 September 1985 to determine procedures. Arising from the meeting, a sequence of requirements was resolved. This was:

- * draft plans would be prepared by the Department of Conservation and Land Management for the Controlling Bodies;
- * following consideration and acceptance of the plans by the controlling bodies, release for public comment and submissions would take place;
- * revision of the draft plans to take into account the comments made by the public would occur;
- * the plans, as revised would be submitted to the controlling bodies and then recommended to the Minister for final approval and release.

During the year two completed management plans were recommended to the Minister for release. These were:

- * The Mooradung Nature Reserve Management Plan;
- * The Management Plan for the Nature Reserves for the Shire of Wyalkatchem.

Four draft management plans were also released for public comment. These were:

- * The Forrestdale Lake Nature Reserve Draft Management Plan
- * The Draft Management Plan for the Nature Reserves of the Shires of York and Northam
- * The Lane-Poole Reserve Draft Management Plan
- * The Shannon Park/D'Entrecasteaux National Park Draft Management Plan.

At the close of this reporting period a further ten management plans were in the course of preparation. These were for:

- * The Cape Range National Park

- * The Bengier Swamp Nature Reserve
- * Two Peoples Bay Nature Reserve
- * The Dampier Archipelago
- * The Northern Forest Region
- * The Central Forest Region
- * The Southern Forest Region
- * The South Coast Regional Plan
- * The Leeuwin-Naturaliste National Park
- * The Ningaloo Marine Park

MINING IN NATIONAL PARKS

After consideration had been given to mining proposals for the Hamersley Range National Park, the Minister was informed that it was the Authority's view that mining was incompatible with the concept of National Parks and A Class Nature Reserves. The Minister was also informed that before the Authority would agree to new mining operations, it would require any areas to be mined to be excised from the Park and redesignated as a reserve to be managed for multiple use and to be compatible as far as was possible with the objectives of the adjacent National Park. The issue of existing tenements within both the Rudall River and Hamersley Range National Parks was also considered at some length.

Conditions that had been imposed on the operations of the mining companies were noted and additional requirements were proposed. The Minister was informed of these requirements seen to be necessary.

SUBMISSION TO THE COMMITTEE ON EXPLORATION AND MINING IN NATIONAL PARKS AND NATURE RESERVES

A submission was made to the Committee on Exploration and Mining in National Parks and Nature Reserves. The submission addressed those factors which the Authority believed should be borne in mind when policies are being developed at ministerial level concerning mining in reserves.

PROPOSED PEAT MINING - LAKE MUIR NATURE RESERVE

The situation as it applied to existing leases at Lake Muir was noted and consideration was given to a proposal to extend the area to be mined. Notwithstanding the existence of the lease, the Authority expressed unequivocal opposition to mining in the Lake Muir Nature Reserve because of the known and likely exceptional biological value.

The Minister was informed of this opposition.

THE 1984 BILL TO AMEND THE MINING ACT

The Authority considered the Bill to assess whether the proposed changes would affect the level of protection that existed for lands vested in the Authority. One minor change was suggested and this was referred to the Minister.

EXCISIONS FROM NATIONAL PARKS AND NATURE RESERVES

During the year a number of proposals to excise small sections of nature reserves and national parks were referred to the Authority.

The proposals were made to meet Government and Local Government requirements. Approvals were recommended by the Authority as the areas involved were not considered to be highly important. In the case of the Kalbarri National Park excision, future additions to the Park were foreshadowed to compensate for the area to be excised.

THE SHANNON PARK/D'ENTRECASTEAUX NATIONAL PARK

It was resolved that the Minister be requested to consider legislation to make the Shannon Park a National Park.

LEASE OF PART OF VARANUS ISLAND IN THE LOWENDAL GROUP FOR THE PURPOSE OF PROVIDING SHORE-BASED FACILITIES FOR OIL STORAGE

Notwithstanding co-operation of the Company in observing prescribed environmental guidelines during the construction and production phases of the development, members expressed concern that the activities had proceeded in the absence of a formal lease arrangement.

The lease document was finally signed on 5 June 1986.

THE BEEKEEPERS RESERVE (24496)

The future vesting and use of the Beekeepers Reserve was considered and it was agreed that:

- * the area should be used for beekeeping purposes;
- * conservation of flora should be an important management objective;
- * the vesting order under the Land Act should state these two requirements;
- * the Authority should have responsibility to recommend on matters relevant to the management of the area.

The Minister was advised of these proposals.

PRINCE REGENT NATURE RESERVE - CONDITIONS FOR ENTRY

Conditions were agreed to for public access to the Prince Regent Nature Reserve but subsequent advice received from the Aboriginal community indicated a preference for an aboriginal guide to accompany tourist groups entering the Reserve. The request was agreed to and the Department of Conservation and Land Management was asked to meet the request.

CONSOLIDATION OF ALL LAND AVAILABLE AT HERDSMANS LAKE FOR MANAGEMENT PURPOSES

The increasing requirements to establish a management committee for the area were considered and the need was endorsed. The Authority nominated Professor McComb to represent its interests on the Committee when it was established.

CONSTRUCTION OF ROADS THROUGH THE NUYTSLAND NATURE RESERVE

Although proposals to construct roads through the Reserve had been supported by the Tourism Commission and the Dundas Shire Council, the Authority expressed concern about the consequences of such work. Because of serious management problems that would arise and the absence of a management plan for the area it was resolved that the Minister be informed that the Authority could not support the proposal.

TAKING OF BOTTLE-NOSE DOLPHINS FOR DISPLAY PURPOSES AT THE ATLANTIS MARINE PARK

Following a decision reached in October 1985, the Minister was advised that in view of the importance of the community's understanding of wildlife, the Authority was in favour of a

number of dolphins, not to exceed ten, being taken for display purposes.

TAKING OF A NUMBER OF RARER ANIMALS BY THE AUSTRALIAN MUSEUM FOR A BICENTENNIAL EXHIBITION

A request made by the Australian Museum to take six species of animals on the protected list for display purposes was not acceded to.

DEVELOPMENT - ALFRED COVE

The Authority noted that the Melville City Council had, constructed a cycleway on a nature conservation reserve vested in the Authority.

The Authority also noted with some concern the intensity of adjacent development and the possible impact on the nature conservation reserve.

It was resolved that the Melville City Council be informed of the concern expressed and be asked to have the cycleway re-routed. As part of the development project, it was also requested that a fence be constructed on the reserve side of the cycleway to protect the reserve itself.

THE FUTURE ROLES OF THE WILDLIFE AUTHORITY BIRD AND FLORA COMMITTEES

While the continuing importance of liaison with the community in the areas of birdlife and flora was recognised, the Authority did not believe that this need was now best achieved through the committees that had been established under the Wildlife Authority for these purposes. Instead, it believed the establishment of the Department of Conservation and Land Management would provide the necessary contact with the community.

THE FUTURE OF THE WEST AUSTRALIAN WILDLIFE AUTHORITY TRUST FUND

The Authority noted that under the provisions of the Conservation and Land Management Act, the responsibility for

allocating the Trust Fund monies had been transferred to the Executive Director of the Department of Conservation and Land Management. The Minister was subsequently requested to amend the Act to allow the Authority itself to make recommendations on the allocation of funds and to receive reports on the expenditure from the new Nature Conservation and National Parks Trust Account.

In declining the request, the Minister did however agree to a consultative process with the Executive Director when requests were received for funds.

Under these arrangements, the Authority noted the allocation of a sum of \$3,000 for the preparation of a book on the pollination of orchids and during its November meeting, recommended the allocation of a sum of \$30,000 per annum for a period of three years to finance volunteer-based Water Bird Studies in Western Australia.

MISMANAGEMENT OF GRAZING LEASES

The Authority noted the unsatisfactory situation that had arisen in some particular grazing leases where continued burning had resulted in clearing. This situation was referred to the Minister.

THE KARRI D'ENTRECASTEAUX REGIONAL ADVISORY COMMITTEE

Mr Maley accepted nomination to represent the Authority on this Committee.

WATER SUPPLIES - HOPETOUN

The Authority considered a proposal to search for water from within the Fitzgerald River National Park for the purpose of supplying Hopetoun. In doing so, the Authority endorsed the opposition of the former National Parks Authority to the proposal. The Minister was informed of the resolution.

WATER SUPPLIES - GRACETOWN

The Authority considered a proposal to take water from Ellen's Brook for the purpose of supplying Gracetown. It was subsequently resolved that the Authority did not believe approval should be given for the project.

VISITORS

Mr A W Hogstrom, Chief Executive Officer of the Agriculture Protection Board attended a meeting of the Authority and spoke on aspects of the APB policy, practices and research. In particular, he referred to the dingo situation where it applied to nature reserves that were vested in the Authority.

Following Mr Hogstrom's address, it was resolved that the Department of Conservation and Land Management be asked to liaise with the APB to review current practices with a view to achieving a mutually agreed approach to dingo management.

Mr J D Clarke of the Mines Department addressed the Authority on aspects of exploration and mining in the Hamersley Range National Park and exploration in the Rudall River National Park. Although the Authority's opposition to mining on national parks had been stated, the issue of existing mining leases remained. Mr Clarke spoke of the operational conditions that had been imposed on those companies whose leases involved national park.

ATTENDANCE AT MEETINGS BY OFFICERS OF THE DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT

In order to provide Authority members with details of Departmental activities, a number of officers were invited to meetings to give addresses on aspects of their particular work.

Dr A Burbidge and Dr S D Hopper spoke of their work at the Wildlife Research Branch and Mr B Muir gave an address on aspects of the little known Rudall River National Park.

INSPECTION - LEEUWIN NATURALISTE NATIONAL PARK

A number of Authority members visited the Leeuwin Naturaliste National Park on 10-11 May 1986.

CHAIRMAN'S REPORT

The National Parks and Nature Conservation Authority has now completed its first full year of activity.

Re-appointment of members of the Authority took place in March 1986. However, because of his other pressing commitments, Mr

John Mumme found it necessary to resign from the Authority and he was succeeded by Mr John Towie.

I wish to record on behalf of the Authority, appreciation of contributions made by Mr Mumme during the time of his membership.

Meetings were held over a long day each month and I believe a great deal was accomplished during these meetings.

While the Authority considered the many important and sometimes contentious issues which have already been reported, the most rewarding aspect of the years activity was perhaps preparation of the first management plans required under the provisions of the Conservation and Land Management Act.

The opportunity given to the Authority to direct preparation of the plans for the lands now vested in it fulfilled a long standing need and was accepted enthusiastically by members. In this respect I acknowledge the support provided by the Department of Conservation and Land Management through its planning officers in meeting the drafting requirements of the Authority.

I would like to express my appreciation of the courtesies which the Ministers extended to the Authority and finally to the members themselves, who have contributed to what I believe has been a most successful and rewarding year.

THE FOREST PRODUCTION COUNCIL

The Forest Production Council is established as a controlling body under Section 21 of the Conservation and Land Management Act 1984.

THE MINISTER RESPONSIBLE

The Forest Production Council is responsible to the Minister for Conservation and Land Management.

THE FUNCTIONS OF THE COUNCIL

The functions of the Forest Production Council are prescribed in Section 25 of the Act and are to advise the Minister -

- (a) generally on matters pertaining to production from State forest and timber reserves;
- (b) on the improvement of -
 - (i) such production in ways consistent with the maintenance of other forest values; and
 - (ii) the use, processing and marketing of forest produce;
- (c) on the need for, and form of, research to achieve or promote the objectives described in section 56 (1) (a) and (b);
- (d) on the contents of proposed management plans for State forest and timber reserves.

THE POWERS OF THE COUNCIL

The Forest Production Council does not have executive powers or functions. Its role is advisory but with direct approach to the Minister being allowed for.

THE OBJECTIVES OF THE COUNCIL

While the general objectives of the Council are established within the provisions of the Conservation and Land Management Act, Council members have agreed that more specific objectives be established. Accordingly, it was resolved that the Council should work within the following terms of reference.

- * To provide the Minister with information or advice on forest production issues, both for wood and non-wood products.
- * To improve public understanding of production forestry and the forest based industry.
- * To encourage the development of high technology for the manufacture of forest products and their marketing.
- * To promote a more efficient system for coordinating research into wood uses, and disseminating its results.
- * To contribute to developing and maintaining realistic forest production policies by identifying and advising on all relevant aspects, including forest resources, production, utilisation, technology, economics, potential markets and private forestry.
- * To review topics of current concern including:-
the improved presentation of forest inventory data;
longer term continuity of log supplies.

COUNCIL MEMBERSHIP

The Forest Production Council consists of 14 members who are appointed under the provisions of Section 26 of the Conservation and Land Management Act and comprising:

- (a) 2 ex officio members being -
 - (i) the Executive Director who shall be the chairman of the Council; and
 - (ii) the Director of Forests who shall be the deputy chairman of the Council; and
- (b) 12 persons appointed by the Governor on the nomination of the Minister of whom -
 - (i) one shall be a person who is a member of the Water Resources Council established by the Western Australian Water Resources Council Act 1982;
 - (ii) 7 shall be representative of timber industries or industries which are significant users of timber or timber products;
 - (iii) one shall be representative of primary

producers, not coming within sub paragraph (ii), associated with forests;

- (iv) one shall be representative of bodies of persons the objects of which, or the members of which by reason of their profession, are concerned in the management of forests;
- (v) one shall be representative of country interests and be a person with special skill or experience relevant to the functions of the Council; and
- (vi) one shall be a person having special experience in commercial forestry production.

EX OFFICIO MEMBERS

- (a) (i) Dr S R Shea, Chairman, Executive Director, Department of Conservation and Land Management.
- (a) (ii) Mr P N Hewett, Deputy Chairman, Department of Conservation and Land Management.

APPOINTED MEMBERS

- (b) (i) Mr K J Kelsall
- (b) (ii) Mr R G Bunning
Mr R J Gillman
Mr A Gosatti
Mr R D McInnes
Mr B T Ray
Mr G J Shepherd
Mr A V Wheatley
- (b) (iii) Mr R O Pollard
- (b) (iv) Mr D Spriggins
- (b) (v) Mr G L Airey
- (b) (vi) Mr P J McNamara

Re-appointment of members for periods of one year from 22 March 1986 were approved by the Governor in Executive Council on 21 March 1986.

STAFF

The Council is serviced by officers of the Department of Conservation and Land Management.

THE ACTIVITIES OF THE FOREST PRODUCTION COUNCIL

The Council met on eight occasions during the year.

Important matters considered included:

PROMOTION OF TIMBER PRODUCTS

The Council endorsed the need to promote the use of timber and in particular, high quality value-added products. A further need seen was to establish a link with the arms of Government involved in promotion activities.

To meet these requirements, a panel was established to consider the broad field of timber product manufacture.

Membership of the panel was:-

Mr R D McInnes
Mr G Shepherd
Mr A Gosatti
Mr D Apse
Mr R Vaile

A member nominated by the Forest Products Association.

The Panel subsequently met with a representative of the EXIM Corporation and discussed ways and means by which the promotional requirements of industry might be met.

The Panel's recommendations had not been finalised at the end of this reporting period.

LONG TERM SECURITY OF LOG SUPPLIES

Arising from consideration given to:

- the substantial investment required in manpower, equipment and frequently in market development by the forest-based industries;
- the need for technical and economic efficiency;
- the need for effective use of supporting services provided by Government.

The Council endorsed a report to the Minister which recommended the tenures of licenses which should apply to log supplies to industry.

TAXATION WHITE PAPER

Members of Council expressed concern about possible disadvantages that would apply to the private forestry industry as a consequence of the provisions proposed in the Taxation White Paper.

At the request of Council, the Director of the former Timber Bureau in consultation with the Australian Forest Development Institute, made a submission to the Premier indicating the possible impact of the tax reforms on private forestry.

THE APIARY INDUSTRY

The problems being experienced by the apiary industry were considered. In particular, the situation as it applied to access by apiarists to the honey source, was discussed. The Council agreed to consider the issue at a future meeting.

THE DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT PINE PLANTING ANNUITY SCHEME.

The Council noted with interest the proposals by the Government to introduce an annuity scheme to establish pine plantations on private land in Western Australia. The Minister was informed in general terms of support for the project.

THE HONORARY ROYAL COMMISSION INTO THE CONSERVATION AND LAND MANAGEMENT ACT 1984

Individual members of the Council met with the Honorary Royal Commissioners and discussed with them the objectives, functions and progress made by the Council.

RE-APPRAISAL OF TIMBER ROYALTIES

Members of the Council considered and stressed the need for full consultation between the Minister and industry prior to implementation of proposals to increase timber royalties.

PUBLIC INTEREST PROJECT

A submission to the Department of Industry Technology and Commerce for finance to support a project titled "New Generation Hardwood Processing" was approved during the year and work was initiated.

VISITORS

During the year, the Council invited Mr Keith Gale of the Exim Corporation and Ms Kathy Hawkins, a public survey consultant, to give addresses on product promotion and public attitude surveys.

Professor Kevin Borland also addressed Council on the use of timber in design and construction.

CHAIRMAN'S REPORT

Since its inception in April 1985, the Forest Production Council has become a valuable advisory body on forest production matters.

Although the Council members have diverse views, it has been possible to advise the Minister on many issues relating to the forests and forest industries comprehensively and rationally.

As Chairman of the Council, I acknowledge the contribution made by the members. It has involved not only attendance of regular meetings of the Council itself, but also participation in sub-committees and panel meetings. Involvement of members has taken place notwithstanding the heavy work load that each of them carries in their own business.

APPENDICES

APPENDIX 1

TREND IN AREA OF KARRI FOREST CUT OVER

Year (calendar year)	Clearfelled or cut to seed trees (ha)	Removal of seed trees (ha)	Thinning regrowth forests (ha)
1976	3 521	832	-
1977	2 053	2 460	-
1978	2 656	863	-
1979	2 281	400	-
1980	2 045	743	140
1981	1 455	1 463	256
1982	1 221	1 348	262
1983	1 735	617	267
1984	2 120	945	393
1985	1 530	802	324

APPENDIX 2

TREND IN PINE PLANTINGS

Year (Calendar Year)	Radiata (ha)	Pinaster Other species (ha)	Total (ha)
1975	1 429	1 299	2 727
1976	1 792	1 139	2 931
1977	1 883	880	2 764
1978	2 254	556	2 810
1979	1 973	561	2 534
1980	1 617	978	2 595
1981	1 600	996	2 596
1982	1 548	642	2 190
1983	1 390	827	2 207
1984	1 996	537	2 534
1985	1 770	519	2 289

APPENDIX 3

TREND IN LOG PRODUCTION

Year	Crown Land (m ³)	Private Property (m ³)	Total (m ³)
Brought forward	6 821 873	15 844 520	81 469 989 *
1970	1 121 396	175 686	1 297 082
1971	1 145 161	161 990	1 307 151
1972	1 096 236	106 993	1 203 229
1973	1 060 359	102 992	1 163 351
1974	1 084 463	91 884	1 176 347
1975	1 096 356	87 957	1 184 313
1976	1 194 667	111 761	1 306 428
1977	1 429 493	106 848	1 536 341
1978	1 445 465	119 706	1 565 171
1979	1 489 515	129 665	1 619 180
1980	1 582 018	165 076	1 747 094
1981	1 593 512	161 966	1 755 478
1982	1 392 227	127 825	1 520 052
1983	1 225 798	102 942	1 328 740
1984	1 333 037	134 922	1 467 959
1985	1 515 956	187 975	1 703 931
1986	1 579 468	156 127	1 735 595

* Includes 18 783 m³ estimated cut prior to 1917.

NOTE: As in previous years this total includes log material used for reconstituted wood and chipwood. The increase since 1976 is due to the use of marri and karri by W.A. Chip and Pulp Company.

APPENDIX 4

TREND IN PINE LOG OUTPUT
(Including Particleboard Logs)

Year	Crown land (m ³)	Private Property (m ³)	Total (m ³)
1970	81 283	1 514	82 797
1971	86 246	1 594	87 840
1972	90 161	1 306	92 067
1973	100 419	1 015	101 434
1974	123 393	1 167	124 560
1975	129 086	63	129 149
1976	105 567	-	105 567
1977	120 859	335	121 194
1978	125 548	1 677	127 225
1979	176 944	6 127	183 071
1980	191 363	4 827	196 190
1981	201 552	2 988	204 540
1982	173 474	14 834	188 308
1983	176 618	5 468	182 086
1984	198 281	3 559	201 840
1985	225 945	18 042	243 787
1986	247 637	29 121	276 758

APPENDIX 5

TRENDS IN THE PRODUCTION AND USE OF SAWN TIMBER

Year Ended 30 June	Sawn Production (m ³)			Export	Local Use
	Hardwood	Softwood	Total		
1970	425 295	16 893	442 188	96 275	345 914
1971	420 777	21 595	442 372	79 437	362 935
1972	379 006	21 733	400 739	101 191	299 548
1973	375 135	23 283	398 418	111 547	286 871
1974	374 899	26 534	410 433	98 200	303 233
1975	368 844	27 086	395 930	100 127	295 803
1976	383 010	16 258	399 268	94 136	305 132
1977	369 151	16 685	385 836	77 352	308 484
1978	347 111	18 669	365 780	58 833	306 947
1979	331 135	18 145	349 280	66 420	282 860
1980	331 411	21 400	352 811	71 955	280 856
1981	330 863	22 954	353 817	65 109	288 708
1982	320 915	22 190	343 105	48 448	294 657
1983	252 124	13 216	265 340	41 789	223 551
1984	258 861	14 723	273 333	N/A	N/A
1985	291 683	21 632	313 315	N/A	N/A
1986	295 160	33 816	328 976	N/A	N/A

APPENDIX 6

TREND IN HARDWOOD CHIPLOG PRODUCTION FROM CROWN LAND

Year	Old growth forest		Other (m ³)	Regrowth forest		Total (m ³)
	Marri (m ³)	Karri (m ³)		Marri (m ³)	Karri (m ³)	
1979/80	439 666	116 975	1 476	292	3 882	562 291
1980/81	386 664	105 604	3 447	1 794	17 564	515 075
1981/82	255 069	90 734	-	1 728	21 676	369 207
1982/83	284 670	100 608	-	3 137	23 702	412 117
1983/84	339 389	78 371	-	2 961	24 293	445 014
1984/85	400 828	71 613	-	2 263	22 176	496 880
1985/86	428 514	54 448	-	555	30 918	514 435

APPENDIX 7

SUMMARY OF EXPORTS OF FOREST PRODUCE

Year	Timber		Wood Manufacture	Essential Oils and Tanning Material *
	(m ³)	Value (\$)	Value (\$)	(\$)
Brought forward	13 081 830	177 786 912	8 536 935	17 386 964
1968	84 569	4 947 595	3 016 850	280 806
1969	86 455	4 984 098	3 802 927	267 565
1970	96 275	5 661 547	3 906 699	317 553
1971	79 362	4 803 842	2 110 802	343 512
1972	101 191	6 439 732	2 369 541	348 762
1973	111 547	7 036 637	2 604 116	337 736
1974	98 200	7 366 709	3 769 461	433 627
1975	100 127	9 080 092	132 278	479 019
1976	94 136	9 823 037	993 199	214 918
1977	77 352	10 150 025	205 173	45 767
1978	58 833	8 809 324	4 625 089	41 422
1979	66 420	10 560 052	8 122 584	61 525
1980	71 955	12 265 737	591 670	255
1981	65 109	12 331 467	1 414 745	2 361
1982	48 448	9 599 222	1 671 328	Nil
1983	41 789	8 295 949	1 634 839	300
1984	19 318	5 284 658	N/A	3 138

* Tanning materials not recorded separately since 1967

APPENDIX 8

SUMMARY OF IMPORTS OF FOREST PRODUCE

Year	Timber Woodware (\$)	Tanning Materials (\$)	Essential Oils (\$)
Brought forward	63 937 163	1 344 397	4 600 226
1968	13 081 830	177 786 912	8 536 935
1969	8 731 114	109 905	206 309
1970	10 968 170	153 169	293 845
1971	6 761 806	103 857	175 331
1972	5 578 819	144 219	227 530
1973	8 326 939	225 463	366 786
1974	11 738 861	420 010	271 713
1975	14 053 751	465 884	641 859
1976	19 960 421	373 331	131 515
1977	24 857 792	603 819	39 143
1978	24 039 952	912 669	620
1979	18 200 508	614 628	48
1980	26 801 716	641 927	1 118
1981	28 691 997	512 128	126
1982	26 068 548	571 183	1 446
1983	23 738 070	341 138	1 138
1984	26 480 449	610 625	6 257

APPENDIX 9

WILDLIFE CONSERVATION ACT AND REGULATIONS

ANNUAL SUMMARY OF BREACHES

(See over)

WILDLIFE CONSERVATION ACT AND REGULATIONS

ANNUAL SUMMARY OF BREACHES

N° OF OFFENCES PER SECTION OR REGULATION	OFFENCE	LOCATION AND NUMBER OF OFFENCES	FLORA AND FAUNA SPECIES INVOLVED	RESULTS (IE PROSECUTION, WARNING, PENDING)	FINE	COSTS
					\$	\$
S16(1) x 74	Illegal taking of protected fauna	Beverley (2)	4 Grey Kangaroos	Warning (2)		
		Busselton (1)	1 Silver Gull 1 Pied Cormorant	Warning (1)		
		Byford (2)	2 Grey Kangaroos	Pending (2)		
		Derby (2)	7 Freshwater Crocodiles	Dismissed under Section 669 Criminal Code (2)	145.70	
		Dwellingup (3)	3 Grey Kangaroos	Prosecution (3)	200.00 x 3	35.70 x 3
		Geraldton (1)	3 Galahs	Pending (1)		
		Gundaring (1)	1 Black Duck	Pending (1)		
		Hamel (1)	1 Western Magpie	Pending (1)		
		Herne Hill (1)	1 Little Eagle	Prosecution (1)	200.00	90.70
		Hovea (2)	2 Wood Duck	Prosecution (2)	200.00 x 2	60.20 x 2
		Karnet (1)	1 Ring necked Parrot	Warning (1)		
		Karratha (1)	1 Black headed Python	Pending (1)		
		Koongamia (1)	1 Western Magpie	Warning (1)		

WILDLIFE CONSERVATION ACT AND REGULATIONS

ANNUAL SUMMARY OF BREACHES

N ^o OF OFFENCES PER SECTION OR REGULATION	OFFENCE	LOCATION AND NUMBER OF OFFENCES	FLORA AND FAUNA SPECIES INVOLVED	RESULTS (IE PROSECUTION, WARNING, PENDING)	FINE \$	COSTS \$
Sl6(1) cont.	Illegal taking of protected fauna	Lake Dumbleyung (2)	4 Ring necked Parrots 2 Stubble Quail	Pending (2)		
		Lake Grace (1)	3 Ring necked Parrots	Prosecution (1)	50.00	50.70
		Laverton (1)	60,000 Budgerigars 11 Crows 1 Galah 1 White necked Heron 1 Whistling Kite 2 Black winged Stilt 1 Brown Falcon 2 Grey Teal 1 Magpie Lark 2 Euros	Warning (1)		
		Mount Burgess (2)	3 Grey Kangaroos 1 Red Kangaroo	Pending (2)		
		Mount Gibson (3)	43 Common Bronzewing Pigeons	Prosecution (3)	500.00 x 2 400.00 x 1	60.20 x 2 60.20 x 1
		Mount Magnet (2)	4 Crested Pigeons	Prosecution (2)	300.00 x 2	40.70 x 2
		Mount Vetler (1)	5 Galahs 2 Ring necked Parrots	Pending (1)		

WILDLIFE CONSERVATION ACT AND REGULATIONS

ANNUAL SUMMARY OF BREACHES

N° OF OFFENCES PER SECTION OR REGULATION	OFFENCE	LOCATION AND NUMBER OF OFFENCES	FLORA AND FAUNA SPECIES INVOLVED	RESULTS (IE PROSECUTION, WARNING, PENDING)	FINE	COSTS
					\$	\$
S16(1) cont.	Illegal taking of protected fauna	Murchison (18)	3 Crimson Chats 2 Variegated Wrens 1 Horsefields Bronze Cuckoo Black Honeyeaters 1 Goulds Sand Monitor	Pending (18)		
		Northam (2)	Grey Kangaroo	Pending (2)		
		Perth (1)	2 Long necked Turtles	Warning (1)		
		Perth (1)	1 Regent Parrot	Prosecution (1)	40.00	55.70
		Perth (1)	2 Ring necked Parrots	Warning (1)		
		Perth (2)	2 Long necked Turtles	Prosecution (2)	150.00 x 2	9.00 x 2
		Pithara (2)	6 Galahs	Pending (2)		
		Port Hedland (1)	1 Olive Python	Pending (1)		
		Port Hedland (1)	1 Childrens Python	Pending (1)		
		Quindalup (1)	4 Black Duck	Pending (1)		
		Rottnest Island (2)	2 Quokkas	Prosecution (2)	200.00 x 2	22.50 x 2
		Swan View (1)	14 Galahs	Pending (1)		

WILDLIFE CONSERVATION ACT AND REGULATIONS

ANNUAL SUMMARY OF BREACHES

N ^o OF OFFENCES PER SECTION OR REGULATION	OFFENCE	LOCATION AND NUMBER OF OFFENCES	FLORA AND FAUNA SPECIES INVOLVED	RESULTS (IE PROSECUTION, WARNING, PENDING)	FINE \$	COSTS \$
Sl6(1) cont.	Illegal taking of protected fauna	Wanneroo (1)	1 Red Wattle Bird	Warning (1)		
		Waroona (3)	Grey Kangaroo	Warning (3)		
		Wyndham (2)	1 Saltwater Crocodile	Pending (2)		
		Wyndham (1)	2 Shingle back Skinks 4 Blue tongue Skinks	Prosecution (1)	250.00	15.70
		Yanchep (3)	1 Grey Kangaroo	Pending (3)		
			TOTAL	Prosecution (18) Warning (12) Pending (42) Dismissed (2)	4,240.00	911.00
Sl6(2) x 3	Taking of protected fauna contrary to notice	Dalwallinu (1)	Emus	Warning (1)		
		Jandakot (2)	6 Ravens	Warning (2)		
			TOTAL	Warning (3)		

WILDLIFE CONSERVATION ACT AND REGULATIONS

ANNUAL SUMMARY OF BREACHES

N° OF OFFENCES PER SECTION OR REGULATION	OFFENCE	LOCATION AND NUMBER OF OFFENCES	FLORA AND FAUNA SPECIES INVOLVED	RESULTS (IE PROSECUTION, WARNING, PENDING)	FINE	COSTS
					\$	\$
516A(1) x 17	Unlawful possession of protected fauna	Australind (1)	2 Grey Teal	Prosecution (1)	400.00	9.00
		Byford (1)	2 Grey Kangaroos	Pending (1)		
		Dalwallinu (1)	160 Emus	Warning (1)		
		Geraldton (1)	1 Grey Kangaroo	Warning (1)		
		Katanning (1)	1 Freckled Duck	Warning (1)		
		Lake Dumbleyung (1)	1 Ring necked Parrot	Warning (1)		
		Midland (1)	2 Red eared Firetail Finches	Pending (1)		
		Perth (1)	8 Galahs	Warning (1)		
		Port Hedland (1)	2 Childrens Python	Pending (1)		
		Port Hedland (1)	1 Carpet Python 1 Childrens Python 2 Olive Pythons 2 Woma Pythons	Pending (1)		
		Thundalarra (4)	7 Red Kangaroos	Prosecution (4)	250.00 x 3 150.00	15.70 x 3 15.10

WILDLIFE CONSERVATION ACT AND REGULATIONS

ANNUAL SUMMARY OF BREACHES

N° OF OFFENCES PER SECTION OR REGULATION	OFFENCE	LOCATION AND NUMBER OF OFFENCES	FLORA AND FAUNA SPECIES INVOLVED	RESULTS (IE PROSECUTION, WARNING, PENDING)	FINES \$	COSTS \$
Sl6A(1) cont.	Unlawful possession of protected fauna	Upper Swan (3)	3 Grey Kangaroos	Pending (3)		
			TOTAL	Prosecution (5) Warning (5) Pending (7)	1,300.00	71.20
Sl6A(2) x 4	Possession of untagged fauna	Rawlinna (1)	6 Grey Kangaroos 4 Red Kangaroos	Pending (1)		
		Perth (1)	1 Red Kangaroo 1 Emu	Prosecution (1)	300.00	45.70
		Yalgoo (2)	2 Red Kangaroos	Warning (2)		
			TOTAL	Prosecution (1) Warning (2) Pending (1)	300.00	45.70
Sl7(2)(c) x 2	Illegal import of fauna	Perth Airport (1)	30 Galahs	Warning (1)		
		Perth Airport (1)	1 Sulphur Crested Cockatoo	Warning (1)		
			TOTAL	Warning (2)		

WILDLIFE CONSERVATION ACT AND REGULATIONS

ANNUAL SUMMARY OF BREACHES

N° OF OFFENCES PER SECTION OR REGULATION	OFFENCE	LOCATION AND NUMBER OF OFFENCES	FLORA AND FAUNA SPECIES INVOLVED	RESULTS (IE PROSECUTION, WARNING, PENDING)	FINE	COSTS
					\$	\$
S17(2)(e) x 3	Selling fauna or taking for purpose of sale without a licence	Albany (1)	2 Western Rosellas	Warning (1)		
		Coolgardie (1)	21 Galahs	Pending (1)		
		Swanview (1)	14 Galahs	Pending (1)		
			TOTAL	Warning (1) Pending (2)		
S17(2)(g) x 2	Processing fauna without a licence	Morawa (1)	Grey Kangaroos	Warning (1)		
		Northam (1)	Grey Kangaroos	Pending (1)		
			TOTAL	Warning (1) Pending (1)		
S17(3)(a) x 4	Using illegal devices	Dandaragan (2)	Wild Ducks	Pending (2)		
		Mundaring (2)	12 Red Browed Finches	Pending (2)		
			TOTAL	Pending (4)		

WILDLIFE CONSERVATION ACT AND REGULATIONS

ANNUAL SUMMARY OF BREACHES

N ^o OF OFFENCES PER SECTION OR REGULATION	OFFENCE	LOCATION AND NUMBER OF OFFENCES	FLORA AND FAUNA SPECIES INVOLVED	RESULTS (IE PROSECUTION, WARNING, PENDING)	FINE	COSTS
					\$	\$
S17(3)(c) x 1	Permitting the use of an illegal device	Donnybrook (1)	3 Grey Kangaroos	Warning (1)		
S17B(2)(a) x 22	Taking game species contrary to proclaimed notice	Dandaragan (2)	Wild Ducks	Warning (2)		
		Dandaragan (2)	1 Pink eared Duck 2 Black Duck	Pending (2)		
		Dandaragan (3)	1 Mountain Duck 1 Black Duck 2 Grey Teal	Pending (3)		
		Dandaragan (4)	8 Grey Teal	Warning (4)		
		Dandaragan (4)	2 Wood Duck 1 Pink eared Duck 1 Blue winged Shoveller 2 Grey Teal	Pending (4)		
		Dandaragan (6)	8 Black Duck 17 Grey Teal 1 Blue winged Shoveller 1 Pink eared Duck 1 White eyed Duck	Pending (6)		

WILDLIFE CONSERVATION ACT AND REGULATIONS

ANNUAL SUMMARY OF BREACHES

N° OF OFFENCES PER SECTION OR REGULATION	OFFENCE	LOCATION AND NUMBER OF OFFENCES	FLORA AND FAUNA SPECIES INVOLVED	RESULTS (IE PROSECUTION, WARNING, PENDING)	FINE	COSTS
					\$	\$
17B(2)(a) cont.	Taking of game species contrary to proclaimed notice	Lake Dumbleyung (1)	2 Mountain Ducks 3 Pink eared Ducks 2 Grey Teal	Pending (1)		
			TOTAL	Warning (6) Pending (16)		
S17B(2)(b) x 2	Possession of game species without a licence	Dandaragan (2)	5 Pink eared Ducks 8 Grey Teal 1 Wood Duck 2 Blue winged shovellers	Pending (2)		
			TOTAL	Pending (2)		
S23B(1) x 18	Illegal taking of protected flora from Crown land	Albany (1)	27 stems Banksia coccinea	Pending (1)		

WILDLIFE CONSERVATION ACT AND REGULATIONS

ANNUAL SUMMARY OF BREACHES

N° OF OFFENCES PER SECTION OR REGULATION	OFFENCE	LOCATION AND NUMBER OF OFFENCES	FLORA AND FAUNA SPECIES INVOLVED	RESULTS (IE PROSECUTION, WARNING, PENDING)	FINE	COSTS
					\$	\$
S23B(1) cont.	Illegal taking of protected flora from Crown land	Busselton (1)	5 Bunches Boronia megastigma 1 bunch Acacia extensa 1 bunch Acacia mooreana	Warning (1)		
		Cadoux (2)	269 bunches Verticordia monadelpha	Warning (2)		
		Dandaragan (2)	131 bunches Verticordia nitens	Prosecution (2)	400.00 x 2	60.20 x 2
		Dandaragan (1)	Protected flora	Pending (1)		
		Dongara (2)	300 stems Banksia hookerana	Pending (2)		
		Lake Muir (1)	Tea Tree	Pending (1)		
		Lake Muir (1)	65 bundles Tea Tree	Pending (1)		
		Lake Muir (1)	Tea Tree	Prosecution (1)	80.00	55.70
		Lancelin (1)	Protected flora	Prosecution (1)	200.00	45.70
		Neerabup (1)	Banksia menziesii	Pending (1)		
		Perth (1)	Anigozanthos manglesii	Prosecution (1)	400.00	45.70

WILDLIFE CONSERVATION ACT AND REGULATIONS

ANNUAL SUMMARY OF BREACHES

N° OF OFFENCES PER SECTION OR REGULATION	OFFENCE	LOCATION AND NUMBER OF OFFENCES	FLORA AND FAUNA SPECIES INVOLVED	RESULTS (IE PROSECUTION, WARNING, PENDING)	FINE	COSTS
					\$	\$
S23B(1) cont.	Illegal taking of protected flora from Crown land	Pingelly (1)	Eucalyptus wandoo	Pending (1)		
		Watheroo (2)	446 bunches Verticordia brownii	Pending (2)		
			TOTAL	Prosecution (5) Warning (3) Pending (10)	1,480.00	267.50
23D(1) x 4	Illegal taking of protected flora from private property	Cadoux (2)	Verticordia species	Warning (2)		
		Perth (1)	Kunzea vestita	Prosecution (1)	100.00	40.20
		Perth (1)	Kunzea vestita	Prosecution (1)	200.00	60.20
			TOTAL	Prosecution (2) Warning (2)	300.00	100.40
23D(2)(a) x 1	Sold protected flora taken illegally from private land	Perth (1)	Kunzea vestita	Prosecution (1)	70.00	40.20

WILDLIFE CONSERVATION ACT AND REGULATIONS

ANNUAL SUMMARY OF BREACHES

N ^o OF OFFENCES PER SECTION OR REGULATION	OFFENCE	LOCATION AND NUMBER OF OFFENCES	FLORA AND FAUNA SPECIES INVOLVED	RESULTS (IE PROSECUTION, WARNING, PENDING)	FINE	COSTS
					\$	\$
23F x 1	Illegal taking of gazetted rare flora	Pingelly (1)	Pomaderris bilocularis	Pending (1)		
S25(1)(a) x 3	Wilfully misleading a Wildlife Officer	Dandaragan (2)		Warning (2)		
	Wilfully obstructing a Wildlife Officer	Dandaragan (1)		Pending (1)		
			TOTAL	Pending (1)	Warning (2)	
S25(1)(b) x 1	Possession of a document calculated to deceive	Lake Muir (1)		Pending (1)		

WILDLIFE CONSERVATION ACT AND REGULATIONS

ANNUAL SUMMARY OF BREACHES

N° OF OFFENCES PER SECTION OR REGULATION	OFFENCE	LOCATION AND NUMBER OF OFFENCES	FLORA AND FAUNA SPECIES INVOLVED	RESULTS (IE PROSECUTION) WARNING, PENDING)	FINE	COSTS
					\$	\$
R5(4) x 2	Damage license holder transporting kangaroo carcasses without tags.	Gingin (2)	Grey Kangaroos	Pending (2)		
TOTAL						
6(11) x 1	Professional shooter transporting untagged kangaroos	Boulder (1)	6 Red Kangaroos	Pending (1)		
8A(1) x 1	Register number not attached to chiller	Rawlinna		Pending (1)		
8A(7) x 1	Owner of chiller shall notify the Executive Director where he disposes of a chiller	Rawlinna (1)		Warning (1)		
R 12(2) x 1	A person shall not breed or keep avian fauna without a licence.	Perth (1)	2 Double Bar Finches 2 Pictorella Finches 2 Plum headed Finches 2 Yellow rumped Finches 2 Masked Finches	Pending (1)		

WILDLIFE CONSERVATION ACT AND REGULATIONS
ANNUAL SUMMARY OF BREACHES

N° OF OFFENCES PER SECTION OR REGULATION	OFFENCE	LOCATION AND NUMBER OF OFFENCES	FLORA AND FAUNA SPECIES INVOLVED	RESULTS (IE PROSECUTION)		COSTS
				WARNING, PENDING)	FINE	
R 12(7)(a) x6	Possession of avian fauna not applicable to licence.	Perth (2) Perth (1) Perth (1) Perth (1)	Major Mitchell Cockatoo 5 Yellow rumped Finches 2 Common Bronzewing Pigeons 2 Long billed Corellas 5 Regent Parrots 2 Yellow Rumped Finches	Warning (2) Pending (1) Warning (1) Pending (1)		\$
		Mt. Barker (1)		Pending (1)		\$
	TOTAL			Warning (3) Pending (3)		
R 12(7)(d)x1	Keeping of avian fauna at other than licenced premises.	Millendon (1)	4 Hooded Parrots 6 Northern Rosellas	Warning (1)		
R12(7)(e)x8	Disposal of avian fauna without an authority.	Darlington (1) Perth (1) Perth (1) Perth (1) Perth (1) Perth (1) Tambellup (1)	3 Elegant Parrots 1 Hooded Parrot 4 Blue Bonnet Parrots 2 Plumed Pigeons 2 Elegant Parrots 2 Major Mitchell Cockatoos 2 Little Quail 1 Hooded Parrot 3 Regent Parrots	Warning (1) Pending (1) Pending (1) Prosecution (1) Warning (1) Warning (1) Warning (1) Pending (1)	100.00 x 1 60.20 x 1	\$
	TOTAL			Prosecution (1) Warning (4) Pending (3)	100.00 x 1 60.20 x 1	\$

WILDLIFE CONSERVATION ACT AND REGULATIONS
ANNUAL SUMMARY OF BREACHES

N° OF OFFENCES PER SECTION OR REGULATION	OFFENCE	LOCATION AND NUMBER OF OFFENCES	FLORA AND FAUNA SPECIES INVOLVED	RESULTS (1/3 PROSECUTION)		COSTS
				WARNING, PENDING)	FINE	
					\$	\$
R12(7)(f) x 3	Disposal of fauna to unlicensed persons	Millendon (1) Perth (1) Perth (1)	4 Hooded Parrots 6 Northern Rosellas 2 Major Mitchell Cockatoos 1 Major Mitchell Cockatoo	Warning (1) Warning (1)		
		TOTAL		Warning (3)		
R13(6) x 1	Purchase by bird dealer from person not licenced	Albany (1)		Warning (1)		
R21(5) x 4	Failure to carry a licence	Dandaragan (4)		Pending (4) Pending (4)		
		TOTAL		Pending (8)		
R21(5)(a) x 2	Failure to complete all particulars for licence	Dandaragan (2)		Pending (2)		
		TOTAL		Pending (2)		
R21(5)(b) x 2	Failure to carry licence when shooting	Dandaragan (2)		Pending (2)		
		TOTAL		Pending (2)		

WILDLIFE CONSERVATION ACT AND REGULATIONS
ANNUAL SUMMARY OF BREACHES

N° OF OFFENCES PER SECTION OR REGULATION	OFFENCE	LOCATION AND NUMBER OF OFFENCES	FLORA AND FAUNA SPECIES INVOLVED	RESULTS (IE PROSECUTION) WARNING, PENDING)	FINE \$	COSTS \$
R21(5)(c) x 2	Failure to produce licence when demanded	Dandaragan (2)		Pending (2)		
		TOTAL		Pending (2)		
R28(1) x 3	Keeping protected fauna without a licence	Port Hedland (1) Greenmount (1) Wyndham (1)	Pythons 2 Redeared Firetail Finches 19 Yellow rumped Finches 4 Gouldian Finches	Pending (1) Pending (1) Pending (1)		
		TOTAL		Pending (3)		
44(1) x 1	Dumping of rubbish on a nature reserve	Capel (1)		Warning (1)		
44(2)(a) x 1	Camping on a nature reserve	Lancelin (2)		Warning (2)		
46(a) x 2	Disturbing soil etc. on a nature reserve	Dandaragan (1) Pingelly (1)		Pending (1) Pending (1)		
		TOTAL		Pending (2)		

WILDLIFE CONSERVATION ACT AND REGULATIONS

ANNUAL SUMMARY OF BREACHES

N° OF OFFENCES PER SECTION OR REGULATION	OFFENCE	LOCATION AND NUMBER OF OFFENCES	FLORA AND FAUNA SPECIES INVOLVED	RESULTS (IE PROSECUTION)		COSTS
				WARNING, PENDING)	FINE	
46(b) x 1	Taking of flora from a nature reserve	Pingelly (1)		Pending (1)		\$
46(g) x 2	Operating a vehicle on a nature reserve	Lancelin (2)		Warning (2)		
		TOTAL		Warning (2)		\$
46(i) x 2	Disturbing fauna on a nature reserve	Dandaragan (1) Pingelly (1)		Pending (1) Pending (1)		
		TOTAL		Pending (2)		
46(j) x 3	Discharging of a firearm on a nature reserve	Kulin Shire (3)		Pending (3)		
		TOTAL		Pending (3)		
46(k) x 3	Taking dogs onto a nature reserve	Lancelin (2) Kulin Shire (1)		Warning (2) Pending (1)		
		TOTAL		Warning (2) Pending (1)		

WILDLIFE CONSERVATION ACT AND REGULATIONS

ANNUAL SUMMARY OF BREACHES

N ^o OF OFFENCES PER SECTION OR REGULATION	OFFENCE	LOCATION AND NUMBER OF OFFENCES	FLORA AND FAUNA SPECIES INVOLVED	RESULTS (IE PROSECUTION)		COSTS
				WARNING, PENDING)	FINE	
						\$
46(1) x 2	Cut or construct a track on a nature reserve	Dandaragan (1) Pingelly (1)		Pending (1) Pending (1)		\$
		TOTAL		Pending (2)		
49(5)(b) x 1	Shoot at bird unidentified as game bird	Lake Dumbleyung (1)		Warning (1)		
49(5)(i) x 1	Lighting a fire on a game reserve	Geraldton (1)		Warning (1)		
50(8)(c) x 1	Shifting a chiller without prior approval	Mardathuna(1)		Warning (1)		

CONTROL OF VEHICLES (OFF-ROAD AREAS) ACT 1978

ANNUAL SUMMARY OF BREACHES

N° OF OFFENCES PER SECTION OR REGULATION	OFFENCE	LOCATION AND NUMBER OF OFFENCES	FLORA AND FAUNA SPECIES INVOLVED	RESULTS (IE PROSECUTION) WARNING, PENDING)	FINE	COSTS
Section 6(1) x 4	A person shall not drive an off-road vehicle onto a nature reserve	Lake Muir (1) Lake Muir (1) Wongamine (2)		Pending (1) Pending (1) Prosecution (2)	75.00 x 2	35.70 x 2
TOTAL				Prosecution (2) Pending (2)	150.00	71.40

\$

\$

\$

APPENDIX 10

A LIST OF RESEARCH PUBLICATIONS

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APPENDIX 11

AREA OF PRESCRIBED BURNING

Indigenous Vegetation - hand burning (ha)

State forests	
Hand burns	29 690
Slash and regeneration	6 278
Indigenous areas within pine plantations zones	534
Clearing burns for pine establishment	494
National parks	2 468 *
Nature reserves	223
Other Crown lands and private property	954
<hr/>	
Total	43 641
<hr/>	

* includes 84 km buffer

Indigenous Vegetation - aerial ignition (ha)

State Forest Hardwood	205 612
National Parks	788
Other Crown lands and private property	12 489
<hr/>	
Total	218 889
<hr/>	

State Forest Softwoods (ha)

Winter burning under pines	6 421
<hr/>	
Total	6 421
<hr/>	

APPENDIX 12

FIRE FIGHTING EQUIPMENT IN REGIONS

	Heavy duty	Gang truck	Light patrol	Portable pump	Hygiene* unit
Northern Forest	22	26	21	18	2
Central Forest	30	30	6	20	2
Southern Forest	17	17	3	8	3
South Coastal	6	0	21	1	3
Wheatbelt	0	2	5	1	1
Greenough	3	0	7	0	0
Goldfields	1	1	0	0	0
Kimberley	0	3	0	0	0
	79	79	63	48	11

* These units are used for dieback disease management but can be used for fire fighting duties.

Heavy duty - pump and carries 3700 litres of water.

Gang truck - pump and 1900 litres of water.

Light patrol - pump and 450 litres of water.

Hygiene unit - high pressure pump and 300 litres of water.

APPENDIX 13

WILDFIRES

Number of wildfires and areas by land categories:

	Number	Area Burnt (ha)
State forest hardwood	158	8 063
State forest softwood	26	16
National parks	36	2 300
Nature reserves	17	10 097
Other Crown lands	55	32 135
Private property	74	20 043
Total	366	72 654

Causes

	Number	Per cent
Deliberately and illegally lit	147	40
Escaped from Departmental prescribed burns	59	16
Escaped from other burning off	41	11
Accidental by timber industry	3	1
Accidental by other industries	16	4
Accidental by recreational visitors	29	8
Lightning	25	7
Unknown	28	8
Other causes	18	5
Total	366	100

APPENDIX 14

FAUNA DECLARED AS RARE OR OTHERWISE IN NEED OF SPECIAL PROTECTION

<u>Scientific Name</u>	<u>Common Name</u>	<u>Government Gazette</u>
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Amphibians

Arenophyrne rotunda	Sandhill Frog	22/11/85
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Birds

Accipiter radiatus	Red Goshawk	22/11/85
Amytornis textilis	Thick-billed Grass-wren	"
Anous tenuirostris	Lesser Noddy	"
Atrichornis clamosus	Noisy Scrub-bird	"
Aviceda subcristata	Crested Hawk	"
Cereopsis novaehollandiae grisea	Cape Barren Goose	"
Cacatua leadbeateri	Major Mitchell's Cockatoo	"
Chalcophaps indica	Green-winged Pigeon	"

Scientific Name

Common Name

Government Gazette

Birds

Coracina tenuirostris	Cicadabird	22/11/85
Dasyornis brachypterus	Brown Bristle-bird	"
Dasyornis broadbenti	Rufous Bristle-bird	"
Emblema oculatum	Red-eared Firetail	"
Falco hypoleucos	Grey Falcon	"
Falco peregrinus	Peregrine Falcon	"
Falcunculus frontatus	Crested Shrike-tit	"
Geophaps smithii	Partridge Pigeon	"
Geopsittacus occidentalis	Night Parrot	"
Halcyon chloris	Mangrove Kingfisher	"
Jacana gallinacea	Comb-crested Jacana	"
Lonchura flaviprymna	Yellow-rumped Mannikin	"
Malurus coronatus	Purple-crowned Fairy-wren	"
Malurus leucopterus edouardi	Black and White Fairy-wren (Barrow Is)	"
Malurus leucopterus leucopterus	Black and White Fairy-wren (Dirk Hartog Is)	"
Megapodius reinwardt	Scrub Fowl	"
Microeca flavigaster	Lemon-breasted Flycatcher	"
Microeca tormenti	Brown-tailed Flycatcher	"
Ninox rufa	Rufous Owl	"
Pezoporus wallicus	Ground Parrot	"
Phaethon rubricauda	Red-tailed Tropic bird	"
Pitta iris	Rainbow Pitta	"
Platycercus haematogaster narethae	Naretha Bluebonnet	"
Poecilodryas superciliosa	White-browed Robin	"
Polytelis alexandrae	Alexandra (Princess) Parrot	"
Psophodes nigrogularis	Western Whip-bird	"
Ptilinopus regina	Red-crowned Pigeon	"
Rallus pectoralis clelandi	Lewin's Water Rail	"
Rhipidura rufifrons	Rufous Fantail	"
Stictonetta naevosa	Freckled Duck	"
Tadorna radjah	Burdekin Duck	"
Tyto capensis	Grass Owl	"

Australia-Japan Agreement

Birds required to be given special protective measures under Article III of the Agreement between the Government of Australia and the Government of Japan for the Protection of Migratory Birds and Birds in Danger of Extinction and Their Environment.

<u>Scientific Name</u>	<u>Common Name</u>	<u>Government Gazette</u>
Amytornis dorotheae	Dorothy's Grass-wren	22/11/85
Cyanoramphus novaezelandiae cookii	Norfolk Island Parrot	"
Cyclopsitta diopthalma coxeni	Coxens Fig Parrot	"
Drymodes superciliaris colcloughi	Northern Scrub Robin	"
Fregata andrewsi	Christmas Island Frigatebird	"
Lichenostomus melanops cassidix	Helmeted Honeyeater	"
Manorina flavigula melanotis	Black-eared Miner	"
Neophema chrysogaster	Orange-bellied Parrot	"
Ninox novaeseelandiae rayana	Norfolk Island Boobook Owl	"
Ninox squamipila natalis	Christmas Island Boobook Owl	"
Pardalotus quadragintus	Forty-spotted Pardalote	"
Pedionomus torquatus	Plains Wanderer	"
Podargus ocellatus plumiferus	Plumed Frogmouth	"
Psephotus chrysopterygius	Golden-shouldered Parrot	"
Psephotus dissimilis	Hooded Parrot	"
Psephotus pulcherrimus	Paradise Parrot	"
Pterodroma leucoptera leucoptera	Goulds Petrel	"
Pterodroma solandri	Providence Petrel	"
Strepera graculina crissalis	Lord Howe Island Currawong	"
Sula abbotti	Abbott's Booby	"
Tricholimnas sylvestris	Lord Howe Island Woodhen	"
Zosterops albogularis	Norfolk Island Silvereye	"

Scientific NameCommon NameGovernment
GazetteMammals

<i>Antechinus apicalis</i>	Dibbler	22/11/85
<i>Arctocephalus forsteri</i>	New Zealand Fur Seal	"
<i>Balaenoptera musculus</i>	Blue Whale	"
<i>Bettongia lesueur</i>	Boodie	"
<i>Bettongia penicillata</i>	Woylie	"
<i>Chaeropus ecaudatus</i>	Pig-footed Bandicoot	"
<i>Dasycercus cristicauda</i>	Mulgara	"
<i>Dasyurus goeffroii</i>	Western Native-Cat	"
<i>Dugong dugon</i>	Dugong	"
<i>Eubalaena australis</i>	Southern Right Whale	"
<i>Isoodon auratus</i>	Golden Bandicoot	"
<i>Lagorchestes conspicillatus</i>	Spectacled Hare-Wallaby	"
<i>Lagorchestes hirsutus</i>	Western Hare-Wallaby	"
<i>Lagostrophus fasciatus</i>	Banded Hare-Wallaby	"
<i>Leporillus apicalis</i>	White-tipped Stick-nest Rat	"
<i>Leporillus conditor</i>	Stick-nest Rat	"
<i>Macropus eugenii</i>	Tammar	"
<i>Macropus robustus</i>		
<i>isabellinus</i>	Barrow Island Euro	"
<i>Macrotis lagotis</i>	Dalgyte	"
<i>Megaptera novaeangliae</i>	Humpback Whale	"
<i>Mesembriomys gouldii</i>	Black-footed Tree Rat	"
<i>Myrmecobius fasciatus</i>	Numbat	"
<i>Notomys fuscus</i>	Dusky Hopping-Mouse	"
<i>Notomys longicaudatus</i>	Long-tailed Hopping Mouse	"
<i>Notomys macrotis</i>	Big-eared Hopping Mouse	"
<i>Onychogalea lunata</i>	Crescent Nail-tailed Wallaby	"
<i>Perameles bougainville</i>	Barred Bandicoot	"
<i>Perameles eremiana</i>	Orange or Desert Bandicoot	"
<i>Petrogale burbidgei</i>	Warabi	"
<i>Petrogale lateralis</i>	Brush-tailed Rock-Wallaby	"
<i>Phascogale calura</i>	Red-tailed Wambenger	"
<i>Potorous platyops</i>	Broad-faced Potoroo	"
<i>Potorous tridactylus</i>		
<i>gilberti</i>	Gilbert's Potoroo	"
<i>Pseudocheirus dahli</i>	Rock-hunting Ringtail Possum	"
<i>Pseudocheirus peregrinus</i>		
<i>occidentalis</i>	Western Ringtail Possum	"
<i>Pseudomys chapmani</i>	Pebble-mound Mouse	"
<i>Pseudomys gouldii</i>	Gould's Native Mouse	"
<i>Pseudomys occidentalis</i>	Western Mouse	"
<i>Pseudomys praeconis</i>	Shark Bay Mouse	"
<i>Pseudomys shortridgei</i>	Shortridge's Native Mouse	"
<i>Sminthopsis butleri</i>	Carpentarian Dunnart	"
<i>Sminthopsis longicaudata</i>	Long-tailed Dunnart	"
<i>Sminthopsis psammophila</i>	Sandhill Dunnart	"
<i>Wyulda squamicaudata</i>	Scaly-tailed Possum	"

<u>Scientific Name</u>	<u>Common Name</u>	<u>Government Gazette</u>
<u>Reptiles</u>		
Aspidites ramsayi	Woma	22/11/85
Brachyaspis atriceps		"
Crocodylus johnstoni	Fresh-water Crocodile	"
Crocodylus porosus	Salt-water Crocodile	"
Ctenophorus yinnietharra		"
Ctenotus delli		"
Ctenotus lancelini	Lancelin Island Skink	"
Ctenotus youngsoni		"
Denisonia atriceps		"
Dermochelys coriacea	Leathery Turtle	"
Egernia stokesii	Spiny-tailed Skink	
aethiops	(Baudin Is)	"
Egernia stokesii	Spiny-tailed Skink	
stokesii	(Houtman Abrolhos Is.)	"
Lerista christinae		"
Lerista humphriesi		"
Lerista lineata	Lined Skink	"
Liasis olivaceus barroni	Pilbara Olive Python	"
Menetia amaura		"
Pseudemydrua umbrina	Western Swamp (Short-necked) Tortoise	"
Python carinatus		
Python spilotus	Carpet Snake	"
Vermicella calonotis		"

APPENDIX 15

OPEN SEASONS DECLARED IN 1985/86

	<u>Government Gazette</u>
Finch Trapping Season 1 September to 15 November 1985	12/7/85
Waterfowl Hunting Season (Kimberley, North West and Eastern Land Divisions) 1 January 1986 to 31 December 1986	13/12/85
Waterfowl Hunting Season (South West and Eucla Land Divisions) 12 January 1986 to 9 February 1986	13/12/85
Waterfowl Population Management (South West and Eucla Land Divisions)(Mountain Duck) 1 January 1986 to 11 January 1986 and 10 February 1986 to 31 December 1986	13/12/85
Sulphur-crested cockatoo - Open Season (South West Land Division)	28/2/86

APPENDIX 16

LICENCES ISSUED IN 1985/86

<u>Fauna Licences</u>		<u>Licences Issued</u>	
1.	<u>Scientific</u>		128
2.	<u>Education and Public (to take)</u> (Reg 15)		30
	Purpose		
	Care of derelect fauna	3	
	Collection and study	5	
	Display and study	9	
	Education	1	
	Miscellaneous	2	
	Photography	10	
3.	<u>Education and Public (to hold)</u> (Reg 16)		52
4.	<u>Avian Fauna</u>		5,040
	Purpose		
	Keep and breed in captivity (Reg 12)	4,948	
	Deal (Reg 13)	81	
	Trap (Reg 11)	11	
	Species Trapped: Parrots		
	Western Rosella	1,307	
	Western King Parrot	1,249	
	Twenty Eight Parrot	3,094	
	White-tailed Black Cockatoo	43	
	Galah	35	
	Little Corella	1	
	Species Trapped: Finches		
	Long-tailed (Black heart)	11,568	
	Masked	5,367	
	Star	4,677	
	Crimson (Blood)	1,246	
	Double-barred Mannikin	2,335	
	Chestnut-breasted Mannikin	4,529	
	Pictorella Mannikin	4,069	
5.	<u>Fauna</u>		
	Purpose		
	Keep in captivity (Reg 12A)		132
6.	<u>Game</u>		4,552
	Duck	4,416	
	Quail	136	

Fauna Licences

Licences Issued7. Kangaroos

Purpose:

Take kangaroos for sale	124
Deal in carcasses	21
Deal in skins	10
Process	19

8. Exports

Interstate

Birds:

Finches:

Crimson (Blood)	603
Chestnut-breasted	837
Double-barred	700
Gouldian	20
Long-tailed (Black-heart)	4,394
Masked	1,748
Pictorella	1,495
Star	1,759
Blue Faced	3

Parrots:

Ringneck (Twenty eight)	2,367
Western Rosella	888
Red-capped (W.A. King)	831
Red-collared Lorikeet	2
Purple-crowned Lorikeet	40
Elegant	29
Mulga	7
Northern Rosella	4
Regent	40
Alexandra's (Princess)	2
Superb	5
Cockatiel (Weero)	36
Red-tailed Black Cockatoo	1
White-tailed Black Cockatoo	24
Galah	28
Little Corella	3
Long-billed Corella	2
Sulphur-crested Cockatoo	8
Rainbow Lorikeet	3
Red-rumped Parrot	2
Rock Parrot	14
Bourke Parrot	15
Pale Faced Rosella	6
Crimson Rosella	2
Eastern Rosella	6
Scaly-breasted Lorikeet	1
Hooded	10
Turquoise	4
Scarlet Chested	2

Other Species:	
White-browed Scrub-wren	2
Brown Thornbill	3
Western Thornbill	3
Red-winged Fairy Wren	2
Splendid Fairy Wren	1
Magpie	1
Southern Skua	4
Sooty Oystercatcher	1
Splendid Wren	1
Spinifex Pigeon	6
Diamond Dove	4
Mammals:	
Short-nosed Bandicoot	7
Pilbara Ningui	2
Ooldea Dunnart	2
Hairy-footed Dunnart	1
White tailed Dunnart	1
Quokka	1
Euro	1
Western Grey Kangaroo	1
Red-tailed Phascogale	2
Kowari	1
Pretty-face Wallaby	1
Reptiles:	
Bynoe's Gecko	10
Small-scaled Snake	2
Brown Snake	2
Taipan	2
Tiger Snake	2
Peninsula Tiger Snake	2
Western Tiger Snake	6
Chappell Island Tiger Snake	2
Death Adder	2
Northern Death Adder	2
Gwadar	3
Mulga Snake	2
Carpet Python	2
Centralian Carpet Python	2
Olive Python	2
Burrowing Frog	5
Water Python	2
Childrens Python	2
Woma	2
Black Headed Python	2
Diamond Python	2
Other:	
Dugong tusks	9
Emu eggs	6
Red Kangaroo skins	11,215
Western Grey Kangaroo skins	11,707
Red Kangaroo meat	38.20 tonne

Overseas	
Birds:	
Galah	16
Emu	1
Sulphur-crested Cockatoo	2
Little Corrella	1
Swamp Hen	2
Barn Owl	1
Mammals:	
Brush-tail Phascogale	1
Pygmy Possum	1
Bat	1
Honey Possum	2
Euro	2
Reptiles:	
Ctenophorus inermis	4
Ctenophorus candicinctus	4
Ctenophorus isolepis	4
Egernia depressa	1
Varanus acanthurus	1
Gehyra punctata	1
Others:	
Red Kangaroo skins	203,107
Western Grey Kangaroo skins	46,433
Emu skins	5
Emu eggs	19
Quokka skull	3
Euro skull	1
Red Kangaroo skull	10
Western Grey Kangaroo skull	1
Red Kangaroo meat	24.75 tonne

9. Imports

Interstate

Birds:

Finches:

Gouldian	285
Blue-faced	11
Star	14
Painted	237
Masked	12
Blackheart	7
Double-barred	2
Plum-headed	5

Parrots:	
Blue-winged	11
Princess	35
Blue-bonnet	17
Weero	80
Eastern King	46
Regent	7
Ringneck	7
Red-rumped	39
Adelaide Rosella	35
Crimson Rosella	152
Eastern Rosella	83
Pale-headed Rosella	22
Turquoise	27
Yellow Rosella	29
Gang Gang	6
Eclectus	17
Scaly-breasted Lorikeet	35
Scarlet-chested	88
Swift	5
Rock	12
Palm Cockatoo	2
Long-billed Corella	22
Northern Rosella	8
Golden-winged	1
Mulga	2
Western Rosella	2
Hooded	15
Superb	15
Musk Lorikeet	36
Bourke	156
Rainbow Lorikeet	59
Little Corella	447
Galah	1,025
Sulphur-crested Cockatoo	21
Major Mitchell	14
Little Lorikeet	16
Golden-shouldered	14
Red-winged	37
Green Rosella	13
Yellow-tailed Black Cockatoo	10
Red-tailed Black Cockatoo	2
Twenty Eight	7

Other Species:	
Diamond Dove	20
Brown Quail	26
Bar-shouldered Dove	6
Flock Pigeon	1
Peaceful Dove	39
Stubble Quail	1
Wonga Pigeon	8
Painted Quail	3
Crested Pigeon	16
Brown Pigeon	7
Regent Bower Bird	4
Red-chested Quail	7
Brush Turkey	6
Satin Bower Bird	6
Green Cat Bird	5
Southern Fig Bird	4
Banded Plover	5
Bronzewing Pigeon	23
Pied Stilt	6
Noisy Pitta	4
Radjah Shelduck	4
Plumed Whistling Duck	6
Chestnut Teal Duck	4
Black-breasted Quail	2
Red-breasted Quail	3
White-headed Pigeon	13
Plumed Pigeon	6
Spur Winged Plover	2
Diamond Firetail	2
Red-crowned Pigeon	4
Green-wing Pigeon	6
Spotted Bower Bird	2
Banded Stilt	3
Blue-faced Honeyeater	3
Sacred Kingfisher	3
Whipbird (Eastern)	4
Exotics:	
Melba Finch	120
Cordon Bleu Finch	95
Aurora Finch	90
Orange-breasted Waxbill	134
Cuban Finch	2
Jacarini	47
Hooded Siskin	12
Alexandrine Parakeet	13
Masked Dove	7
Peach-faced Lovebird	31
Masked Lovebird	21
Cutthroat Finch	32
Siskin	10
Orange-cheeked Waxbill	2
Nyassa Lovebird	3
Red-chested Cardinal	2

Ring-neck Pheasant	3
White-breasted Ground Dove	46
Egyptian Goose	6
Mandarin Goose	4
Blue & Gold Macaw	8
Bleeding Heart Pigeon	11
Fischers Lovebird	20
Slatey-headed Parrot	6
Plum-headed Parrot	10
Nanday Conure	10
Sun Conure	3
Red-fronted Kakariki	14
Yellow-fronted Kakariki	12
Scarlet Macaw	1
Monk Parakeet	10
Mandarin Ducks	2
Golden-breasted Waxbills	4
White-throated Munia	8
White-headed Munia	8
Red-headed Finch	10
Ruddy Ground Doves	4
Red-faced Parrot Finch	16
Mammals:	
Yellow-footed Rock Wallaby	2
Short-nosed Bandicoot	3
Koala	10
Grey Kangaroo	2
Yellow-footed Antechinus	10
Tammar Wallaby	1
Common Planigale	12
Brown Bandicoot	6
Reptiles:	
Common Taipan	2
Tiger Snake	2
Brown Snake	2
Chappell Island Tiger Snake	2
Death Adder	2
Northern Death Adder	2
Western Brown Snake	2
Dugite	2
Mulga Snake	2
Carpet Python	2
Centralian Carpet Python	2
Olive Python	2
Childrens Python	2
Water Python	2
Woma	2
Cane Toad	2
Black-headed Python	250
Diamond Python	2
Rosenbergs Goanna	4
Gwarda	2
Peninsula Tiger Snake	2
Small-scaled Snake	2
Exotic Animals:	
White-Toothed Shrew	2
Dorcopsis Wallaby	4
Leaf-eating Monkey	2

APPENDIX 20

STAFF CHANGES 1985/86

Public Service Act

GILLEN K J	DISTRICT MANAGER	PERMANENT APPOINTMENT
SHARP J R	SCIENTIFIC ADVISER	PERMANENT APPOINTMENT
STEWART S	PUBLICATIONS OFFICER	PERMANENT APPOINTMENT
BLYTH J D	SCIENTIFIC ADVISER	PERMANENT APPOINTMENT
MERCER G W	REGIONAL MANAGER	PERMANENT APPOINTMENT
McNAMARA K J	SCIENTIFIC ADVISER	PERMANENT APPOINTMENT
PEET G B	REGIONAL MANAGER	PROMOTION
DONE C C	REGIONAL MANAGER	PROMOTION
HAMMOND L F	MANAGER POLICY COUNCILS	PROMOTION
KEENE D J	MANAGER TIMBER PRODUCTION	PROMOTION
WATSON J R	REGIONAL MANAGER	PROMOTION
WALLACE K J	REGIONAL MANAGER	PROMOTION
START A N	REGIONAL MANAGER	PROMOTION
SCHMIDT W G	MANAGER RECREATION & LANDSCAPE	PROMOTION
IRELAND W J	ASSISTANT ADMIN OFFICER	PROMOTION
CHRISTENSEN P E S	PRINCIPAL RESEARCH OFFICER	PROMOTION
JONES P M	SCIENTIFIC ADVISER	PROMOTION
EDWARDS C J	MANAGER PERSONNEL	PROMOTION
DARRAGH I R	MANAGER ENGINEERING	PROMOTION
HAMPTON D R	MANAGER WILDLIFE & LAND ADMINISTRATION	PROMOTION
BURBIDGE A A	PRINCIPAL RESERVES OFFICER	PROMOTION
WILLIAMSON A J	PRINCIPAL PLANNING OFFICER	PROMOTION
SPRIGGINS D	REGIONAL MANAGER	PROMOTION
SIEMON G R	SENIOR RESEARCH OFFICER	PROMOTION
WALKER A W	REGIONAL MANAGER	PROMOTION
MALAJCZUK G	PRINCIPAL ECONOMICS OFFICER	PROMOTION
EDWARDS D M	MANAGER MAPPING SERVICES	PROMOTION
SMART J K	MANAGER FIRE PROTECTION	PROMOTION
FRITZ S	DISTRICT MANAGER EXMOUTH	PROMOTION
JOHNSTON D B	MANAGER POLICY DIRECTORATE	PROMOTION
BATINI F E	MANAGER ENVIRONMENTAL PROTECTION	PROMOTION
GALLAGHER S F	MECHANICAL SUPERVISOR	RECLASSIFIED
MARSHALL L J	SENIOR MECHANICAL SUPERVISOR	RECLASSIFIED
REYNOLDS J	SENIOR MECHANICAL SUPERVISOR	RECLASSIFIED
TREVORROW R	MECHANICAL SUPERVISOR	RECLASSIFIED
KRAVAINIS H	MECHANICAL SUPERVISOR	RECLASSIFIED
GRENFELL S R	MECHANICAL SUPERVISOR	RECLASSIFIED
HILDER D L	DISTRICT MANAGER	RECLASSIFIED
MUIR B G	PLANNING OFFICER	RECLASSIFIED
MAY R F	PLANNING OFFICER	RECLASSIFIED
URQUHART G R	SENIOR BUDGET OFFICER	RECLASSIFIED
ATKINS K R	DISTRICT MANAGER	RECLASSIFIED
TAYLOR N H	PARKS & RESERVES OFFICER	RECLASSIFIED
HODGE B J	ACCOUNTANT	RECLASSIFIED
FRAME I J	SUB ACCOUNTANT	RECLASSIFIED
GORRINGE H R	ADMINISTRATION OFFICER	RETIRED
QUAIN S J	DIVISIONAL MANAGER OPERATIONS	RETIRED
HAVEL J J	DIRECTOR RESEARCH & PLANNING	RETIRED
GRACE D	MANAGER FIRE PROTECTION	RETIRED
VAN NOORT A C	CHIEF OF DIVISION	RETIRED
COX D E	ASSISTANT CHIEF DRAFTSMAN	RETIRED
FIELD G	INTERPRETATION OFFICER	APPOINTMENT

10. Emus
Process:
Emu eggshells

APPENDIX 17

STAFF BY DIVISION*, BRANCH AND REGION

DIVISION/BRANCH/ REGION	PUBLIC SERVICE ACT			CALM ACT		TOTAL
	Administrative & Professional	Clerical & General	Temporary/ Contract	Field and Clerical Staff	Wages Employees	
SENIOR MANAGERS AND SUPPORT STAFF	16	14	1	3	-	34
RESEARCH AND PLANNING	43	27	5	50	24	149
Wildlife Research (inc Library)	16	21	1	2	6	46
Production and Protection Research	20	-	4	48	18	90
Economics	2	1	-	-	-	3
Planning	5	5	-	-	-	10
ADMINISTRATION & FINANCE	8	76	9	7	28	128
Engineering	2	7	-	4	27	40
Finance	2	25	5	-	-	31
Internal Audit	-	4	-	-	-	4
Records	-	13	2	-	1	16
Wildlife & Land	1	21	2	-	-	24
Personnel	4	6	-	3	-	13
SERVICES	39	24	-	37	3	103
Computing	1	5	-	1	2	9
Environmental Protection	1	-	-	1	-	2
Fire Protection	3	1	-	14	-	18
Information	4	4	-	14	1	23
Inventory	3	-	-	2	-	5
Mapping	20	13	-	-	-	33
Recreation and Landscape	2	-	-	1	-	3
Timber Production	4	1	-	4	-	9
Silviculture	1	-	-	-	-	1

* Divisional staff located in the regions are counted in this Table as operations staff.

DIVISION/BRANCH/ REGION	PUBLIC SERVICE ACT			CALM ACT		TOTAL
	Administrative & Professional	Clerical & General	Temporary/ Contract	Field and Clerical Staff	Wages Employees	
OPERATIONS	67	44	-	267	624	1002
Wildlife Prot.	-	31	-	-	-	31
Central Forest	22	3	-	110	240	375
Gascoyne	1	-	-	-	1	2
Goldfields	2	2	-	3	13	20
Greenough	3	1	-	-	6	10
Kimberley	1	-	-	2	2	5
Metropolitan	4	-	-	-	10	14
Northern Forest	14	2	-	70	183	269
Pilbara	2	-	-	2	3	7
South Coast	1	1	-	3	12	17
Southern Forest	15	2	-	69	147	233
Wheatbelt	2	2	-	8	7	19
TOTAL	173	185	15	364	679	1416
Vacancies	20	29	-	5	10	64
Cadets University	5	-	-	-	-	5
Field	-	-	-	24	-	24
Trainees	-	-	-	-	-	112
CEP Employees	-	-	-	-	20	20

APPENDIX 18

SUMMARY OF REGIONAL PERSONNEL

Region/District	Professional	Administrative and Clerical	Field Staff	National Park Rangers	Forest & Reserve Employees	Total
CENTRAL FOREST	21	23	94	5	235	378
Busselton	2	4	16	-	48	70
Collie	1	3	12	-	34	50
Harvey	2	3	13	-	47	65
Kirup	1	2	10	-	46	59
Nannup	2	3	10	-	56	71
GASCOYNE	1	-	1	1	-	3
GOLDFIELDS	2	1	4	-	13	20
GREENOUGH	2	1	4	6	-	13
Moora	1	-	4	-	-	3
KIMBERLEY	-	1	3	2	-	6
Kununurra	-	1	1	-	-	2
Broome	-	-	1	-	-	1
METROPOLITAN	4	-	-	6	4	14
NORTHERN FOREST	13	13	63	28	155	272
Dwellingup	3	2	20	-	42	67
Jarrahdale	1	2	9	-	24	36
Mundaring	1	2	7	-	20	30
Wanneroo	2	3	10	-	58	73
PILBARA	1	1	3	3	-	8
SOUTH COAST	-	1	8	12	-	21
Albany	-	1	5	-	-	6
Esperance	-	-	3	-	-	3

Region/District	Professional	Administrative and Clerical	Field Staff	National Park Rangers	Forest & Reserve Employees	Total
SOUTHERN FOREST	14	11	62	5	142	234
Manjimup	11	6	41	-	59	117
Pemberton	2	3	11	-	39	55
Walpole	1	2	9	-	44	56
WHEATBELT	1	3	10	-	7	21
Katanning	-	2	2	-	-	4
Narrogin	-	1	5	-	7	13
Total	59	55	252	68	556	990
Mobile Rangers	-	-	-	17	-	17
Grand total	59	55	252	85	556	1007

NOTES:

* Only major districts are listed.

* Mobile Rangers are identified separately due to their seasonally-based deployment.

APPENDIX 19

STAFF BY LEVEL AND GENDER

	PS ACT		CALM ACT	
	Male	Female	Male	Female
Executive Director	1	-	-	-
General Manager	1	-	-	-
Level 9	6	-	-	-
8	22	-	-	-
7	18	-	-	-
6	42	2	1	-
5	38	1	37	1
4	64	7	56	3
3	37	4	89	5
2	27	9	109	9
1	48	46	1	53
Sub Totals	304	69	293	71
Totals	373		364	
<u>Grand Total</u>	737			

APPENDIX 20

STAFF CHANGES 1985/86

Public Service Act

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MERCER G W	REGIONAL MANAGER	PERMANENT APPOINTMENT
McNAMARA K J	SCIENTIFIC ADVISER	PERMANENT APPOINTMENT
PEET G B	REGIONAL MANAGER	PROMOTION
DONE C C	REGIONAL MANAGER	PROMOTION
HAMMOND L F	MANAGER POLICY COUNCILS	PROMOTION
KEENE D J	MANAGER TIMBER PRODUCTION	PROMOTION
WATSON J R	REGIONAL MANAGER	PROMOTION
WALLACE K J	REGIONAL MANAGER	PROMOTION
START A N	REGIONAL MANAGER	PROMOTION
SCHMIDT W G	MANAGER RECREATION & LANDSCAPE	PROMOTION
IRELAND W J	ASSISTANT ADMIN OFFICER	PROMOTION
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WALKER A W	REGIONAL MANAGER	PROMOTION
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FRITZ S	DISTRICT MANAGER EXMOUTH	PROMOTION
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GRENFELL S R	MECHANICAL SUPERVISOR	RECLASSIFIED
HILDER D L	DISTRICT MANAGER	RECLASSIFIED
MUIR B G	PLANNING OFFICER	RECLASSIFIED
MAY R F	PLANNING OFFICER	RECLASSIFIED
URQUHART G R	SENIOR BUDGET OFFICER	RECLASSIFIED
ATKINS K R	DISTRICT MANAGER	RECLASSIFIED
TAYLOR N H	PARKS & RESERVES OFFICER	RECLASSIFIED
HODGE B J	ACCOUNTANT	RECLASSIFIED
FRAME I J	SUB ACCOUNTANT	RECLASSIFIED
GORRINGE H R	ADMINISTRATION OFFICER	RETIRED
QUAIN S J	DIVISIONAL MANAGER OPERATIONS	RETIRED
HAVEL J J	DIRECTOR RESEARCH & PLANNING	RETIRED
GRACE D	MANAGER FIRE PROTECTION	RETIRED
VAN NOORT A C	CHIEF OF DIVISION	RETIRED
COX D E	ASSISTANT CHIEF DRAFTSMAN	RETIRED
FIELD G	INTERPRETATION OFFICER	APPOINTMENT

Conservation and Land Management Act

YOUNG G C	DISTRICT FORESTER (OPS)	PROMOTION
PHILLIPS-JONES K A	DISTRICT FORESTER (OPS)	PROMOTION
MEAD R D	DISTRICT FORESTER	PROMOTION
GORTON S C	DISTRICT FORESTER	RECLASSIFIED
KITSON R A	SENIOR FORESTER	RECLASSIFIED
WOOD T	DISTRICT FORESTER	RECLASSIFIED
PHELPS N	SENIOR FORESTER	RECLASSIFIED
DONNELLY D J	CHIEF UTILISATION OFFICER	RECLASSIFIED
STYLES H G	REGIONAL FORESTER	RECLASSIFIED
RICHMOND P J C	REGIONAL FORESTER	RETIRED

APPENDIX 21

DEPARTMENT'S SAFETY RECORD FOR THE LAST 25 YEARS

Year	Man-hours worked	No. of accidents			Frequency rate			Days Lost
		Lost time accid.	Medical treat. accid.	Total	Lost time accid.	Medical treat. accid.	Both	
1960/61		188			140			3 015
1961/62		188			142			2 516
1962/63		200			154			2 763
1963/64		172			135			2 498
1964/65		181			153			3 700
1965/66		179			144			2 455
1966/67		185			100			3 244
1967/68	1 895 000	124	312	436	65	164	230	1 701
1968/69	2 019 568	96	155	251	48	76	124	1 738
1969/70	1 901 020	70	129	199	37	67	104	721
1970/71	1 808 406	48	158	206	27	76	110	458
1971/72	1 759 888	40	128	168	23	72	95	275
1972/73	1 728 577	45	112	157	26	64	90	414
1973/74	1 651 621	45	119	164	27	72	99	359
1974/75	1 748 219	55	127	182	31	72	104	634
1975/76	1 762 693	31	113	144	17.5	64	82	383
1976/77	1 707 635	32	157	189	19	92	111	620
1977/78	1 764 519	26	151	177	15	86	100	731
1978/79	1 835 917	44	143	187	24	76	100	810
1979/80	1 826 452	32	125	157	17.5	68	86	983
1980/81	1 897 463	24	135	159	13	71	84	490
1981/82	1 915 684	19	141	160	10	74	84	459
1982/83	1 931 192	27	134	161	14	69	83	849
1983/84	2 144 995	43	198	241	20	92	112	819
1984/85	2 093 453	30	189	219	14	90	105	776
1985/86	2 649 390	41	204	245	15	77	92	1 477 *

* Of the 1 477 days lost, 489 were carried over from 7 accidents sustained during the previous year.

APPENDIX 22

PUBLICATIONS PRODUCED IN 1985/86

Annual Reports

Department of Conservation and Land Management 1985
Forests Department 1984/85
National Parks Authority 1984/85

Landscape

- Volume 1 No. 2 Yanchep National Park
Dieback and the Fragile South Coast
Searching for Numbats
Historic Trees of W.A.
- Volume 1 No. 3 Selling Australia's Heritage
The Tenuous Tuart
Devonian Reef - A Photo Essay
New Timber from a New Forest
False Pretences: Wily Wildflowers
- Volume 1 No. 4 Marmion Marine Park
Aboriginal Plant Usage
Migratory Waders
A Town like Nanga
Islands in the Sun
Pine Sharefarming
- Volume 2 No. 1 Planning for the Shannon/D'Entrecasteaux
Maurice Coleman Davis: Timber Tycoon
Wheatbelt Wildflowers: A Rich Heritage
Greening the Wheatbelt
Managing Kangaroos - Striking a Balance

CALM News

Monthly staff newspaper.

Recreation, Advisory and Education Guides

Dieback on the South Coast
Trees for shade, shelter and conservation - Narrogin, Hamel, Wanneroo and Nannup
Birds of Cape Range National Park and adjacent Ningaloo Reef area
Birds of Cape Arid National Park
The Shannon Park and D'Entrecasteaux National Park - Future Management
Yanchep National Park General Brochure
Hamersley Range National Park - General Brochure
Greening Urban Parks and Gardens for Wildlife
Exploring Granite Outcrops
National Parks and Forests - Recreation Guide
Shannon Forest Western Australia
Fauna of the Shannon - Pamphlet 3

Timber Getter Trails 1985
Dwellingup Forest Recreation Guide 1985
Bush Walks in the State forests
Forest Recreation - Mundaring District
Bush Walks in Mundaring districts
Care of young kangaroo's 1985
Take care in crocodile areas
Honey Locust (*Gleditsia triacanthos*) (Information Sheet No. 48) A J Hart
Softwood Sharefarming - South West
Duck Shooters Guide 1986
Cubic Contents of Hardwood Logs

Posters

Geike Gorge National Park
Arbor Day - Day of Trees 1986
State Emblems of Western Australia
This is Nosoticta Pilbara, Guardian of the Millstream Wetlands
Take home a little Shannon magic - Birds
- Fauna
- Flora

Directories and Manuals

Department of Conservation and Land Management Regional and District
Offices
1985 : Officer Training
Report of the Review into Operations of the Conservation and Land
Management Act 1985

Management Programs

The Noisy Scrub Bird (Wildlife Management Programme No 2). A A Burbidge, G
L Folley and G T Smith
Kangaroo Management in Western Australia (Wildlife Managmeent Programme No
3). K J McNamara and R I T Prince

Management Plans

No 1 Mooradung Nature Reserve Summary of public submissions October 1985.
No 1 Mooradung Nature Reserve Management Plan 1985-1995. K J Wallace and
S A Moore.
No 1 Avon Valley Nature Reserve (Audit of public submissions). I G Crook.
No 2 Nature Reserves of the Shire of Wyalkatchem. (Draft) S A Moore and A
A E Williams.
No 2 Nature Reserves of the Shire of Wyalkatchem Summary of public
submissions December 1985. S A Moore and K J Wallace.
No 2 Nature Reserves of the Shire of Wyalkatchem Management Plan
1985-1995. S A Moore and A A E Williams.

- No 3 Forrestdale Lake Nature Reserve (Draft) March 1986. J Bartle, G Graham, J Lane and S Moore.
- No 4 Nature Reserves of the Shires of York and Northam (Draft) March 1986.
- Shannon Park and D'Entrecasteaux National park (Draft) April 1986. A Walker.
 - Lane-Poole Reserve (Draft) Volume 1 April 1986. O Nichols, B Muir, D Haswell and J Sharp.
 - Lane-Poole Reserve (Draft) Volume 2 Public Input April 1986.
 - Lane-Poole Reserve (Draft) Volume 3 Resource Document April 1986.

Technical Reports

- 1 Silviculture guidelines for the treatment of even-aged regrowth and two-tiered karri rorests. November 1985. F J Bradshaw.
- 2 Forest entomology research in Western Australia. December 1985. Dr I Abbott.
- 3 A eucalyptus study tour of south-western Australia. January 1986. T E H Aplin, R J Edmiston and I Abbott.
- 4 Silviculture guidelines for virgin southern jarrah rorest. January 1986. F J Bradshaw.
- 5 Farmers' attitudes towards pine afforestation on farms in the Manjimup area of Western Australia. February 1986. G N Soutar and Y M Wallis.
- 6 The integration of trees and farming in New Zealand. March 1986. R Moore.
- 7 Dugong in northern waters of Western Australia. March 1986. R I T Prince.
- 8 Parrot damage in apple orchards in south-western Australia - A review. S A Halse.
- 9 Behaviour and short term effects of two fires in regenerated karri forest. M L McCaw.

Landnote

- 1/86 A data source booklet on Western Australian members of the Rosaceae and Chrysoblanaceae. G Keighery.
- 2/86 Pampas grass in Western Australia. G J Keighery and J J Alford.
- 3/86 Garden escapes on Rottneest Island - An annotated checklist. G Keighery.
- 4/86 The Pepper tree, Schinus Molle (Anacardiaceae) : A possible problem woody weed in pine plantations. G Keighery.
- 5/86 Updating your records on the flora of Western Australia. G Keighery.