



FORESTRY ANNUAL REPORT 1982-83

PRESENTED TO PARLIAMENT BY COMMAND

September 1983

The Honourable W.H. Glasson,
M.L.A.
Minister for Lands, Forestry and Police
BRISBANE Q 4000

Dear Mr Glasson

I am pleased to submit to you the
Annual Report of the Department of
Forestry for the 1982/83 financial year.

Yours faithfully

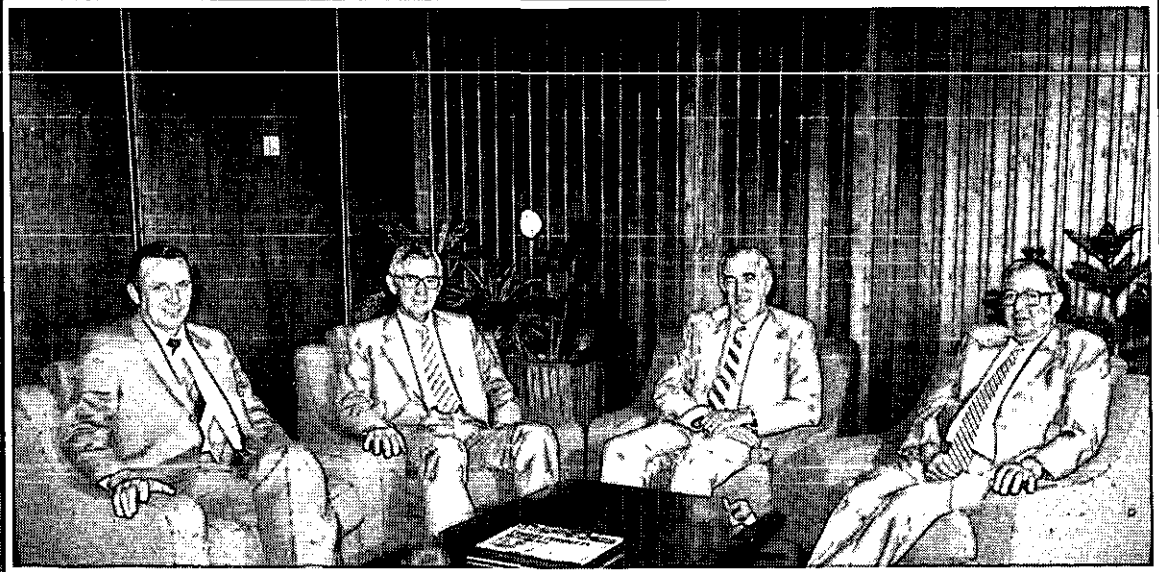
A handwritten signature in cursive script, appearing to read "J.A.J. Smart".

J.A.J. Smart

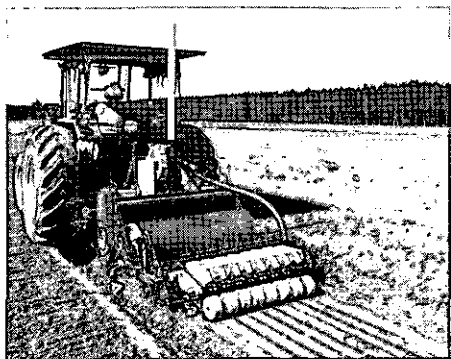
Conservator of Forests

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- Whilst the year under review was a difficult one in many respects, it was also a significant one for the Department in that a major review of the organisation and management strategy took place. This is dealt with in more detail later.
- The economy overall continued its general downward trend and because of this the level of funding made available for plantation establishment works was restricted, resulting in a reduced programme.
- The area of softwood plantations established was 4 830 hectares — the lowest for 5 years. Nevertheless, it is still a significant achievement in the stringent financial circumstances.
- The forest-based industry experienced very difficult trading conditions with the sawmilling sector particularly affected, and as a result the milling timber removals from Crown forests were the lowest for almost a decade.



- The year saw also a fire season of above average severity and it is a tribute to the efficiency and dedication of the staff that losses from fire were not more serious.
- Growing community interest in environmental matters created increasing public debate on matters of forest management generally. The Department diverted a greater proportion of its resources to such aspects as the handling of enquiries and preparation of information literature. It continued to increase its activity in such fields as advisory extension, public relations and environmental education.
- Recreational usage of State Forests continued to break all previous records in visitation numbers. Year after year increasing numbers of people turn to the State Forests for recreational enjoyment. The rate of increase in recreational usage of State Forest demonstrates the need for commitment of additional funds to the construction and maintenance of recreation facilities in forest areas.
- The third intake of students entered the Gympie Training Centre and included four women. This was the first time women students commenced the course which trains our future field supervisors. The Centre was expanded during the year with a new conference room and accommodation block to cater for its expanding sphere of training and other activity.

THE YEAR IN BRIEF

Top: L to R: Miss Forestry Lauren Kelly, Timber Queen Lizette Nichol, Director of Land Use and Information Tim Yorkston and Forestry Minister Bill Glasson inspect a cross-cut saw at Open Day.

Centre: The new vacuum drum sower in operation.

Bottom: Information Officer John Irving (left) examines the full-colour "Forests are ..." poster series printed during the year.

Facing page: Forest landscape, Conondale Range.

Insert: Conservator of Forests, Jim Smart (second from right), with (from left to right) Assistant Conservator Tom Ryan, Deputy Conservator John Kelly, and Chief Administration Officer Frank McCaul.

During the period a considerable amount of effort was devoted to furthering a comprehensive review of the Department's organisational structure and management strategy.

In a growing and developing department such periodic reviews are essential if the organisation is to keep abreast of the expanding workloads and increasing levels of technology, and be capable of meeting changing needs. The requirements of forest management are changing at an unprecedented rate here as elsewhere in response to economic, technological and community pressures.

A major outcome of the Departmental review to date has been the adoption of an organisational structure which effectively separates the line and staff functions. This has resulted in a redeployment of the Department into three major divisions:

Forest Management
Technical Services
Administration

In essence the new Division of Forest Management undertakes the state-wide field programmes of the Department and, as such, now integrates the forest operational and timber marketing aspects of the overall management of the forests. The increasing interdependence of these two aspects of forest management had made such a regrouping desirable.

In addition to the direct line responsibility of the Forest Management Division, various specialist branches of the division have a staff role to formulate policy, guidelines and prescriptions in their respective areas such as silviculture, forest engineering, fire protection, timber marketing and forest resources. While they are not responsible for actual field implementation these specialist branches also provide a service and advisory function to operational staff in these areas.

Activities in the field continue to be administered through 10 Districts located at centres throughout the State and organisationally these districts now lie within the Division of Forest Management.

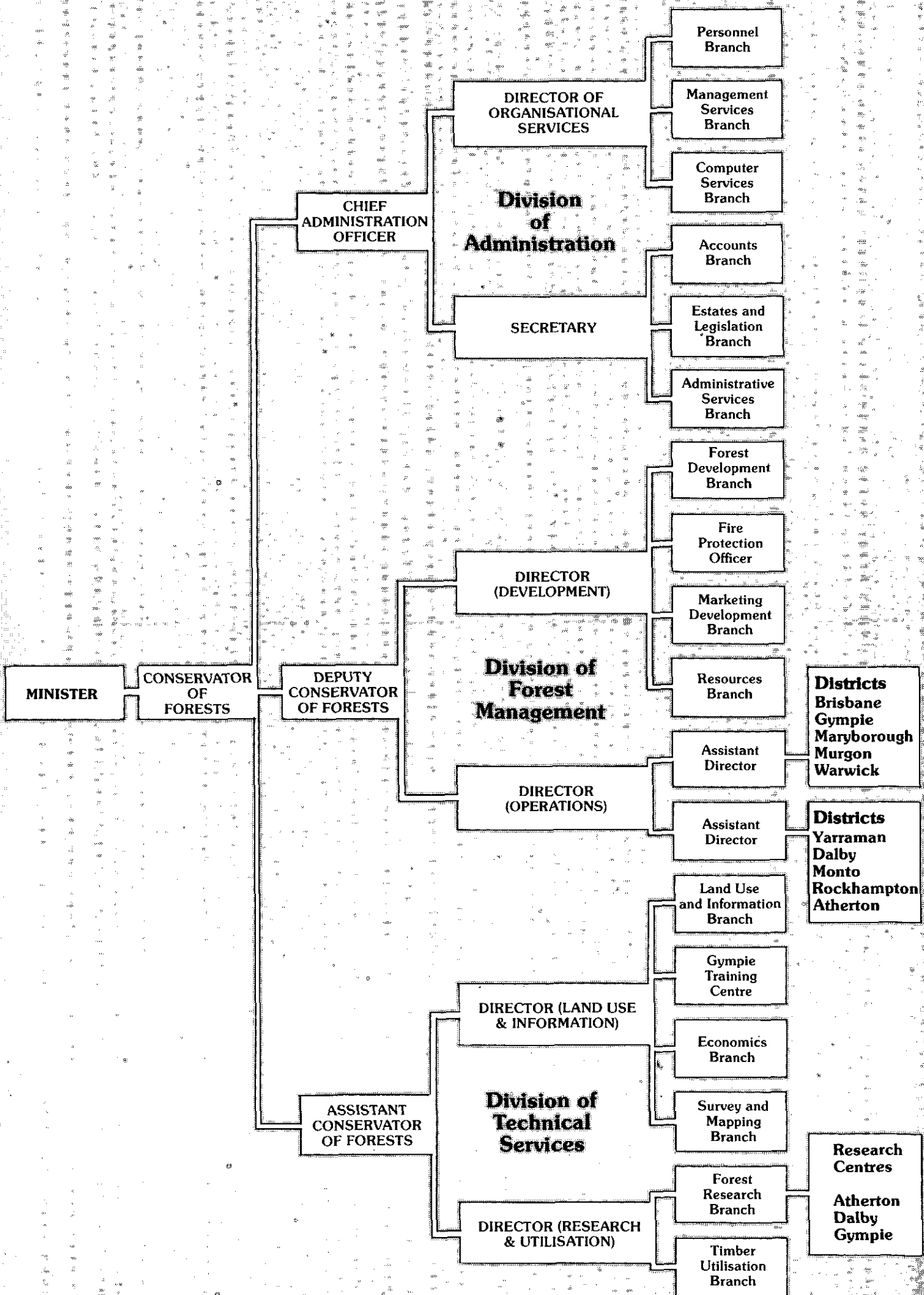
The District Forester's responsibilities cover the total operational performance of his district in conformity with Departmental policies, procedures and programmes. He has full responsibility and accountability within the district for such aspects as administration, development and implementation of forest management plans, managerial and budgetary control of field operations, and community and industry liaison.

The two service divisions are seen as providing the essential administrative and technical support to this forest management core of the Department and in this context are also thus seen to function essentially in a staff role.

The extent to which these changes were implemented during the year has already provided benefits for the Department. The new structure with its clearer determination of roles and responsibilities facilitated improved coordination and reporting relationships particularly insofar as districts are concerned. A significantly greater delegation of responsibility for decision-making to the various levels of management has also been possible. The new structure facilitates development planning and a more forward looking approach to the management of the Department's operations.

Whilst the review has progressed significantly during the year its full implementation, particularly at the branch and district levels of the Department is still to be finalised and this work is proceeding satisfactorily with wide staff involvement. The Department now faces a challenging period to develop its skills and working procedures so that the full potential of the new organisational structure can be realised.

DEPARTMENTAL ORGANISATION



MINISTER

CONSERVATOR OF FORESTS

DEPUTY CONSERVATOR OF FORESTS

ASSISTANT CONSERVATOR OF FORESTS

CHIEF ADMINISTRATION OFFICER

DIRECTOR OF ORGANISATIONAL SERVICES

Division of Administration

SECRETARY

DIRECTOR (DEVELOPMENT)

Division of Forest Management

DIRECTOR (OPERATIONS)

DIRECTOR (LAND USE & INFORMATION)

Division of Technical Services

DIRECTOR (RESEARCH & UTILISATION)

Personnel Branch

Management Services Branch

Computer Services Branch

Accounts Branch

Estates and Legislation Branch

Administrative Services Branch

Forest Development Branch

Fire Protection Officer

Marketing Development Branch

Resources Branch

Assistant Director

**Districts
Brisbane
Gympie
Maryborough
Murgon
Warwick**

Assistant Director

**Districts
Yarraman
Dalby
Monto
Rockhampton
Atherton**

Land Use and Information Branch

Gympie Training Centre

Economics Branch

Survey and Mapping Branch

Research Centres

Forest Research Branch

**Atherton
Dalby
Gympie**

Timber Utilisation Branch

The Department's objectives are:

- Develop and manage the State-owned forests in the best long-term interest of the general community.
- Manage these forests, including production forests, so that they best fulfil their multiple use role, including recreation and protection of the environment.
- Manage production forests to maintain, as far as practicable, adequate supplies of timber and other forest products to meet the community needs in perpetuity.
- Contribute to the development of effective general land use policies and practices in the State.
- Promote sound development and stability in the wood-using industry.
- Undertake research relevant to the needs of forestry and the wood-using industry.
- Undertake training in forestry and encourage the development of safe working practices in the forest.
- Encourage sound timber utilization practice in the community.
- Provide extension advice to the public and the timber industry in the fields of forestry and timber utilization.

OBJECTIVES

A clear water stream in Goldsborough State Forest, north Queensland, feeds the Mulgrave River.





	1982-83	1981-82	1980-81	1979-80	1978-79
Crown Forest Estate					
State Forest — 000s hectares	3 869	3 829	3 713	3 716	3 610
Timber Reserve — 000s hectares	571	572	584	595	589
Plantation Forest Management					
Total area — 000s hectares	143	139	133	127	119
New area established — hectares	4 414	5 939	6 437	7 775	7 775
Replanted area — hectares	416	372	205	142	
Native Forest Management					
Area treated — hectares	8 605	8 947	7 839	9 430	13 433
Nursery Stock Produced					
For Departmental use — 000s	6 048	7 235	8 000	11 308	8 802
For Amenity and Forest Plots sales — 000s	1 129	1 059	523	400	418
Hazard Reduction (Prescribed) Burning					
Native Forests — 000s hectares	100	106	159	107	58
Plantation — 000s hectares	14	12	12	8	6
Wildfires					
Number of fires	270	64	157	206	37
Area burnt — 000s hectares	197	35	67	63	3
Roads Constructed					
Kilometres.....	282	266	324	298	280
Timber Cut on Crown Lands					
Native Forest — 000s cubic metres	406	575	593	637	567
Plantations — 000s cubic metres	210	303	350	285	229
Expenditure					
Forestry Development Fund					
\$000s.....	24 835	20 480	22 687	19 265	16 411
Consolidated Revenue Fund					
\$000s.....	14 914	13 394	11 768	10 520	9 327
Loan Fund					
Recreation Facilities — Construction					
\$000s.....	123	183	339	441	342
Forestry and Lumbering Fund					
\$000s.....	12 567	12 180	9 540	8 577	7 208
Staff					
Wages.....	1 215	1 087	1 211	1 192	1 213
Salaried	645	642	631	632	633

FIVE YEAR SUMMARY

THE FOREST ESTATE

At 30 June 1983 State Forest and Timber Reserves in Queensland totalled 4 440 532 hectares, a nett increase for the year of 39 444 hectares. This increase was despite a significant revocation of 16 800 hectares of State Forest, in south-east Queensland; for addition to Cooloola National Park.

An amount of \$741 408.00 was expended on land acquisition, the major outlay being a further payment in connection with the purchase of about 10 300 hectares in the Toolara area, which is being acquired for the extension of the Department's planting programme in this region. It will become available for reservation as State Forest in the early part of the next financial year.

FOREST RESOURCES

During the year the importance of the Crown timber resources in Queensland became more apparent than ever before. Demand for timber products increased in line with the State's expanding population while imports from southern states and overseas cost some \$100 million.

The conservation of natural timber producing areas and the continuation of a vigorous conifer plantation programme remained an important objective of the State in the interests of both present and future generations.

Native Forest Inventory

With the introduction of sawlog allocations in the central Queensland zone in October, all sawmills in Queensland entitled to operate

Crown native timber resources are currently covered by an equitable allocation system which takes account of purchaser performance in distributing the allowable cut.

All zones are now on five year allocation periods, with the determined allowable Crown log supply to be made available to mills set for each of the five years (forward from the review date) based on the sustainable cut from known available Crown resources.

During the year the allocations of hardwoods and scrubwoods in south-east Queensland were reviewed resulting in reduced allocations in five supply zones and small increases in two.

Evaluation of large areas of Crown Pastoral Holdings potentially suitable for State Forest reservation continued by means of aerial photo interpretation and subsequent ground inspections for verification of timber types and quality. The work is most important in adequately securing future timber resources — often in areas presently remote from harvesting operations. Preliminary investigation of the feasibility of using Landsat imagery for this purpose was also tested but results so far have been inconclusive.

Plantation forest inventory

The plantation inventory system provided data and calculations for current and projected yields of timber available from State Forest plantations. The figures were supplied on a short-term basis for day-to-day harvesting management, as well as on a long-term basis for future industry expansion and development.

Major yield calculations were conducted during the year for plantation areas at Beerwah/Beerburum and Tuan/Toolara/Wongi State Forests in the Gympie/Maryborough region.

Valuation of Timber for Conversion of Tenure

The programme of valuation of timber on leasehold lands subject to conversion of tenure continued, with 126 new applications being received mainly from central and north Queensland.

The programme's position at 30 June 1983 was:

Applications	Number	Area (ha)
Withdrawn	264	927 061
Being processed	92	388 708
Awaiting field assessment ...	66	192 676
Completed	3 091	12 452 834
	4 323	13 968 279
(As at June 30 1982	4 197	13 565 509)

TIMBER MARKETING

HARVESTING AND MARKETING

Pricing

During the year the Department endeavoured to maintain the real value of timber revenue by varying Crown log prices in accordance with movements in the Consumer Price Index, and in line with the established timing for such adjustments.

Increases deferred in the 1970s due to difficult trading conditions created a backlog in stumpage adjustments, though in 1980-81 and 1981-82 there was a substantial reduction to this accumulated backlog. In recognition of the difficult economic situation the increase in Crown log prices from 1 July 1982 was limited to the current C.P.I. increase and further reduction in the backlog was not possible.

The review of pricing systems for various species groups, aiming at simplification, and restoration of price relativity, continued throughout the year. Work on a new plantation pricing system neared completion, and development of an area pricing system for hardwoods progressed satisfactorily.

Log measurement

Cypress pine sales by weight scaling (measurement of mass for conversion to volume by a predetermined factor) also continued satisfactorily at points where public weighbridges were available.

Additionally, this method of sale was successfully introduced on a limited basis for timber from plantation thinnings.

FOREST PRODUCE AND FOREST INDUSTRIES

Timber Harvesting

The volume of timber harvested from Crown and private lands during 1982-83 is provided in the Appendices. The Total Crown Cut of milling timber and pulpwood was 645 906 cubic metres — a decrease of 29.9 per cent on the previous year's cut.

Milling timber removals for 1982-83 were below the 1981-82 levels for all species groups. Crown milling timber removals of 559 239 cubic metres from native forest and plantations were the lowest since the conversion to metric log measurement in 1974.

Log timber receipts totalled \$9 580 628 for the year which represented a drop of 14.7 per cent on the 1981-82 receipts.

Timber Industry

Unfavourable trading conditions which began in early 1982 continued and worsened through 1982-83. The major contributing factors were the continuing severe downturn in the building industry and the availability of large quantities of low-cost timber imported from interstate and overseas.

Despite this, satisfactory propositions for the utilisation of 65 000 cubic metres per annum of plantation pine from the Beerburrum area were obtained and accepted when the resource was re-advertised.

Propositions for purchasing and processing final crop plantation hoop pine from Brisbane Valley were recalled and a closure date of 30 September 1983 set. Trial sales of ply quality logs from the area were made to three major plywood manufacturers in the region for evaluation.

A call for the registration of interest in the purchase of an annual quantity of 80 000 to 100 000 cubic metres of exotic pine final crop in the Gympie-Maryborough area brought responses from eight firms. The interested organisations were invited to submit, by 1 November 1983, firm proposals for processing the timber.

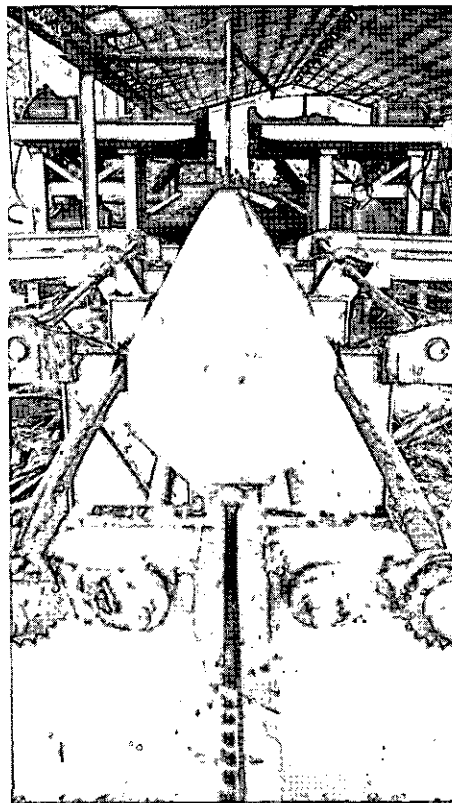
The plantation sawmilling industry suffered a major setback in November when Wilkinson Timber Industries' large Caboolture sawmill was destroyed by fire. A decision on the re-building of the mill had not been announced by the company at the close of the year.

Pulpwood Sales

Following termination of earlier unsuccessful negotiations with another party, a Finnish Company, Ekono Consulting Engineers, offered to undertake a feasibility study into a proposed pulp/paper mill, to be based on 300 000 cubic metres of pulpwood available annually from exotic pine plantations in the Gympie-Maryborough area as an adjunct to sawlog production. The company has been granted an 18 months option on this pulpwood resource, terminating in April 1984, to complete the study and finalise a proposal.

Sawmill Licensing

At the conclusion of 1982-83, there were 362 timber mills in Queensland; of these 274 were general purpose mills, 60 were restricted licence mills and 28 were portable mills.



Left: A feller-buncher undertaking pulpwood thinning in a 12-year-old slash pine plantation.

Right: A large red gum girder being dressed for Queensland Railways at Corbett Bros. Sawmill, Gympie.

PLANTATIONS

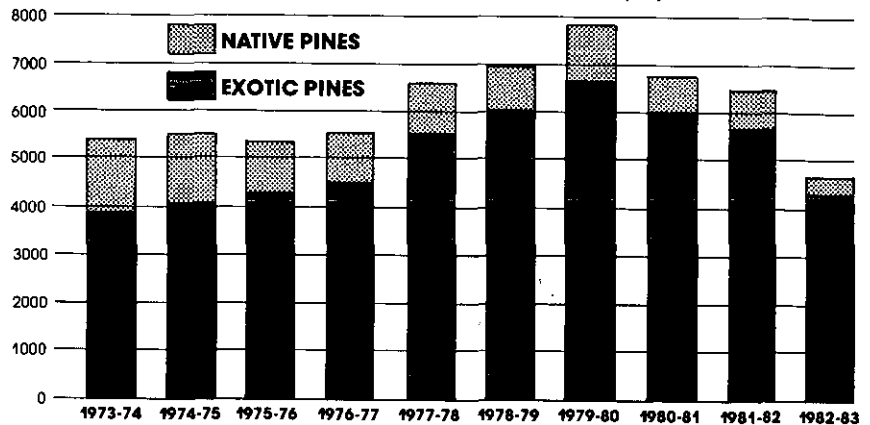
Plantation Programme

During the year 4 830 hectares of plantations were established, consisting of 4 318 hectares of exotic pines and 512 hectares of native hoop pine. The total planted estate reached 143 266 hectares.

However, the area established was down 24 per cent on the previous year.

Production of high standard planting stock from the Department's field nurseries totalled almost 6.75 million seedlings. A new vacuum drum precision sower was purchased for use at Toolara Nursery and was used successfully for the 1982 winter sowings. The machine not only bedforms and sows in one operation, but also accurately places each seed at the desired spacing. Improved stock quality and greater sowing efficiency should result from continued use of the vacuum drum sower.

PLANTATION ESTABLISHED (ha)



Nurseries

The new Salisbury Amenity Nursery was officially opened in December by the Minister for Lands and Forestry the Hon. W.H. Glasson. Built by Works Department at a cost of \$75 000, it is anticipated the nursery will sell over 80 000 plants in the 1983-84 financial year. The new nursery also complements the recently expanded Bunyaville Nursery in the supply of plants to the public for amenity and reforestation plantings.

Seed Collection and Sales

Collection of caribbean pine seed was restricted to higher quality genetically improved seed sources and totalled 457 kilograms. To meet the high overseas demand for some seed strains a major effort was directed towards the collection of particular north Queensland provenances of *Eucalyptus camaldulensis* (red river gum), *E. grandis* (rose gum), *Araucaria cunninghamii* (hoop pine), and *Acacia mangium* (brown salwood). Sales of seed realised \$103 546, of which \$91 107 was from overseas sales. This was almost double last year's receipts.

FOREST MANAGEMENT

Nutrition

To avoid the onset of phosphorus deficiency (the major growth limiting factor of exotic pines on coastal wallum soils) standard initial fertiliser applications of 60 kilograms of phosphorus per hectare were maintained at all new plantings of exotic pine.

Sampling of foliage of 10 year-old stands throughout the area indicated that adequate levels of critical nutrients still existed. Consequently, no refertilising was carried out apart from a relatively small scale programme at Elliot River where specific soil deficiencies warranted extra attention.

Weed Control

Trials continued during the year to evaluate various herbicides and to investigate cost-effective application methods, with the result that some new techniques were introduced.

Weed control in hoop pine plantations was evaluated during a special workshop where evidence presented indicated that early tree growth could be greatly increased by maintenance of low weed density in the vicinity of each tree, and that this could be achieved by spot application of residual herbicide. Phenoxyacetic herbicides generally formed the principal basis for weed control in young plantations but provided control which was periodic and confined to broad-leaved weeds. The trials indicated that application of residual herbicide in bands along rows or in circles around each tree had potential to improve some weed control situations. Further investigation of the extent to which this technique could replace the use of the phenoxyacetics will be continued.

In older hoop pine plantations lantana remained a major problem, and trials indicated that the application of herbicide by sprinkler-sprayer remained a viable technique for its control, particularly in areas of dense infestation by large plants.

In young exotic pine plantations, cultivation, pre-plant misting, and directed spray application continued to provide adequate weed control on freshly cleared forested sites. On other cleared sites, formerly developed for grazing, trials indicated that combination applications of knock-down and residual herbicides had potential for overcoming the problem of retarded tree growth due to vigorous competing regrowth of grasses.

Training of staff in techniques of weed control was continued with new intensive five-day courses for field supervisors, and the introduction of schools for field rangers.

Left: Forestry Minister Bill Glasson opening the new Salisbury amenity nursery, watched by Overseer Yvette Sullivan.

Right: Senior Forest Technician, Tim Frodsham undertaking residual herbicide application (ring fending) during hoop pine weed control experiments at Yarraman.

Pre-Commercial Thinning

Following an examination of research and other data, management prescriptions now provide for pre-commercial thinning of all young softwood plantations. The pre-commercial thinning programme aims to increase piece size and reduce the number of commercial thinnings, thereby reducing overall logging and processing costs.

This operation, involving the removal of inferior trees in young plantations to improve the growth of superior trees on each site, was extended during the year to include most plantation units, with 11 159 hectares of plantation undergoing pre-commercial thinning.

Of this area, 1 334 hectares were thinned under contract by Wilkinson's Timber Industries Pty. Ltd. following destruction by fire of their Caboolture sawmill and the allocation of special funds to the Department to provide relief work for the displaced sawmill employees. Further extension of this work to older stands was limited by the availability of funds.

From Bundaberg north, heavier thinning of exotic pine plantations between age three years and first thinning stage, to 500 stems per hectare in lieu of the previous practice of thinning to 600 stems per hectare, was commenced. In coastal plantations south of Bundaberg, thinning of three to four year-old slash pine to 750 stems per hectare was introduced. In Gympie District, hoop pine plantations ranging from an average height of three metres to first pruning stage, were thinned to 750 stems per hectare in lieu of the former 1 000 stems per hectare, bringing Gympie into line with practice previously adopted in other hoop pine areas.



Planting Espacement

As a result of thorough evaluation of research results and economic factors, a decision was made to establish future plantings of hoop pine at wider spacings of 5 metres by 2.4 metres, providing a nominal 830 stems per hectare compared with the 1 110 stems per hectare of the previous 3 metre by 3 metre spacing. Studies indicated that the lower rate of 750 effective stems per hectare involved only a minor sacrifice in production of saw-log volume and resulted in worthwhile cost savings.

Exotic species, also, became the subject of a similar espacement evaluation during the year.

Pruning

The Department maintained its policy of pruning the lower 5.4 metres of selected trees, in both exotic and native pine plantations of high site quality, to produce knot-free wood. The programme aims to produce high quality wood for furniture construction and joinery and plywood manufacturing.

NATIVE FORESTS

Treatment

Harvesting of native forests continued on a sustained yield basis with shortfalls in funding again limiting follow-up stand improvement. Altogether 7 736 hectares of cypress pine, and 869 hectares of hardwood forest received silvicultural treatment during the year. In both instances the treated areas were less than the previous year.



PROTECTION

Hazard Reduction (Prescribed) Burning

Plantations: Broadacre prescribed burning of young exotic plantations to reduce accumulated ground fuels continued with some 14 000 hectares of plantation burnt by low intensity fires. A helicopter was used for aerial ignition trials, and some 5 000 hectares were successfully burnt by this method.

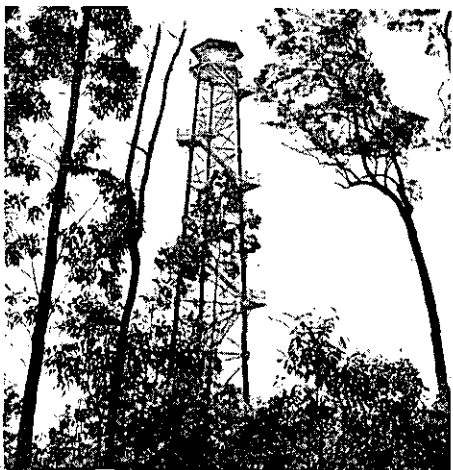
Fire Damage

The 1982-83 fire season was of above average severity. Dry conditions were experienced throughout the State due to the failure of normal spring and summer rains. Only the southern end of the Moreton region in south-east Queensland received regular storm rains and a resultant lower fire danger. Large native forest fires occurred in other areas of the State, particularly in Dalby, Monto, Rockhampton and Warwick districts.

Flood rains in March and subsequent widespread flooding in May and June ended the worst drought and fire season since 1977-78.

Fires covering some 197 000 hectares were recorded in 270 State Forests. Fourteen fires burnt through 125 hectares of pine plantations. The most serious plantation fire flared in September (on the day of the Commonwealth Games Opening Ceremony) in Tuan State Forest. In all, the fire burnt over 1 980 hectares of private native forest, and 110 hectares of the Department's exotic pine plantation — 12 hectares being completely destroyed. Direct suppression costs totalled \$51 000, whilst overall loss is expected to be in the vicinity of \$200 000.

Native Forests: Fuel reduction by prescribed burning was carried out over a total of 100 000 hectares of native forests. Aerial ignition was used in most areas.



Two new incendiary machines, based on a Victorian Forest Commission design, were constructed locally to be used in conjunction with the two older machines for annual prescribed burning.

Training and Conferences

No formal fire training courses were held in 1982-83, although Districts conducted their own field exercises on fire detection and suppression.

The Fire Protection Officer and the Fire Research Forester attended the Fire Management Research Working Group No. 6 at Bunbury in Western Australia in December. The Fire Protection Officer attended the Third Australian Conference of Rural Fire Authorities at Coolangatta in May, and the Fire Control Officer's meeting in Melbourne in June.

Communications

The 1982-83 programme was largely confined to upgrading and maintaining the existing radio communications system.

Replacement of outmoded base stations and control equipment continued with installation of nine base units and 24 remote consoles.

Replacement of radio huts was completed at Kalpowar, Benarkin, Gympie and Murgon. A programme of very high frequency (VHF) radio link control for existing and future bases progressed in 13 country areas.

District mechanics were trained in radio installation practices, and for the first time, conventional drive vehicles were delivered direct by country dealers, and radios fitted in District workshops.

Consistent with the requirements of the Construction Safety Act, all 30 existing radio masts were fitted with climbing rungs, or steps, and safety carriages and rails.



CAPITAL WORKS AND EQUIPMENT

Fire Towers

A 36 metre high wooden fire tower was completed at Wongi State Forest near Maryborough in February. It was the first tower to be constructed at Wongi (an area of young exotic pine plantations) and has already aided in the detection of threatening fires.

Also during the year major repairs were carried out on several old wooden towers in Gympie and Maryborough districts.

Roads

The year saw construction or upgrading of approximately 282 kilometres of forest roads as part of a continuing programme to provide a network of management, logging and protection roads for both plantations and native forests.

Foundation investigations were conducted and materials purchased for the Tinana Creek Bridge near Toolara. The bridge, which will provide access to new areas for planting, will have a 15 metre span and be constructed of steel piles with a pre-stressed concrete deck.

Piles were purchased and delivered to the site of a four span timber and concrete bridge which will provide access across Canoe Creek into new planting areas near Abergowrie in the Ingham Sub-District.

Buildings

Combination store, garage, and fire tank gantry structures were erected at Kuranda and Cardwell. Road gang accommodation was constructed on the Mount Windsor Tableland north-west of Mareeba.

Work commenced on the improvement of sewerage disposal systems for recreation areas on Fraser Island and at Jimna. The systems installed on Fraser Island utilise drop structures and fabric lined seepage trenches.

Upgrading of Imbil Forest Station was completed during the year, marking the first stage in a planned upgrading programme of major forest stations throughout the State.

Left: The new fire tower in Wongi State Forest.

Right: Helicopter aerial firefighting using chemically saturated water dumped from a lightweight container.

Mechanical Plant

Particulars of the Department's plant and vehicles are given in Appendix 7.

One hundred and fourteen motor vehicles, two graders, nine rubber-tyred tractors and one loader/backhoe were purchased at a cost of \$1 800 075.

The Department moved towards the purchase of dual cab vehicles to replace old single cab units in order to provide improved passenger capacity.

Three planting machines manufactured to a Departmental design were purchased during the year. Altogether five machines of this ergonomically improved design went into service and further purchases are planned.

New pumping equipment was installed to supply water to the Forest Station and township at Jimna.

FOREST RECREATION

The number of visitors to State Forests continued to increase with record levels being reached during the year. This was despite less than ideal weather during the popular holiday periods of Easter, Anzac Day weekend and Labour Day weekend, and a resultant steadying in the rate of public use (to an increase of 17 per cent on 1981-82 levels).

Many developed State Forest Parks therefore recorded use at or beyond their designed capacity. This intensified wear and tear and accelerated maintenance requirements.

One of the worst affected areas was Fraser Island, where it was necessary to impose a limit on the number of visitors on commercial tours. This should allow time for the completion of the extension of effluent treatment works, and reconstruction of access to those natural features which showed signs of environmental damage through overuse.

Managed State Forests remained well suited to the provision of nature-oriented recreation and continue to provide in a very important way for the forest oriented needs of the community.

Left: Easter camping at Booloumba Creek State Forest Park in the Conondale Range.

Right: Forest grazing.

The field of Forest Recreation is considered an important and rewarding area of the Department's operations, providing direct contact between the public and the Department. As a result greater understanding of the Department's activities is gained by visitors.

Present funding for maintenance works is, however, inadequate to meet the increased usage even of existing recreation areas and indirectly limits the provision of additional facilities.

OTHER FOREST USES

Grazing

Grazing of forest land was readily incorporated into the management of State Forests without conflict with other uses.

Most native forests suitable for grazing were under lease for that purpose during the year. The Department's activities in selective thinning of native forests improves both the forests' timber producing capacity and grazing value. Livestock grazing in young hoop pine plantations remained a valuable tool for reducing weeds and maintaining access for management purposes.

Apiculture

Throughout the year there was continued interest by apiarists in leasing areas of State Forest rich in honey and pollen producing flora. Diminishing private forested land escalated honey producers dependence on State Forest and increased the importance of this aspect of multiple-usage.

Reforestation expenditure 1982-83 under the Department's Works Programme

Item	Expenditure	% of Total
Plantations	6,457,762	31.3
Natural regeneration	617,898	3.0
Protection	999,806	4.9
Nursery expenses	471,299	2.3
New construction	379,396	1.8
Seed collection*	32,148	0.2
Surveys	110,276	0.5
Purchase and maintenance of working equipment	811,777	3.9
Research	656,817	3.2
Total direct expenditure	10,537,179	51.1
Overheads	10,063,438	48.9
Total reforestation works expenditure	20,600,617	100.0

* This refers only to seed collection expenditure incurred for the Works Programme. A further amount of \$182 102 was expended on collection of seed intended for sale.



General

Throughout the past year the Department maintained its ongoing policy of conservative multiple use management of native forests, with *timber harvesting controlled by a system of selective logging*. Through the enforcement of strict environmental guidelines Departmental officers again aimed to maintain the integrity of the forest environment as a whole.

Benefits continued to accrue from this approach, including the harvesting of mature and overmature trees, *effective thinning practices*, encouragement of forest regeneration and improvement of forest productivity. Importantly the essential character of forest areas was maintained during implementation of these processes.

In spite of the application of such environmentally sound management principles to all forest types, there *remained a continuing* conservationist campaign for restriction or even cessation of native forest logging, particularly in rainforest and the associated wet sclerophyll hardwood forest type. Rainforest in Queensland is still the best preserved major forest ecosystem, with about 64 per cent reserved as State Forest and Timber Reserve and about 23 per cent as National Park. Importantly, approximately half of the rainforest area that has been reserved as State Forest and Timber Reserve will never

be logged and will remain virgin for environmental or other reasons. Public awareness of these details and of conservative rainforest logging practices implemented by the Department was *heightened with the release during the year of several Departmental publications on rainforest management*.

The Department is firmly convinced *that a sensible balance of production and preservation can and should be achieved in forested areas, and its policies are directed towards this objective*.

For many years Forestry has set aside special management areas known as Beauty Spots, though this title has become somewhat outmoded. Attention will be given to providing new guidelines for their selection, description and management following a review of all Beauty Spots during the year. This is closely linked with plans to enhance the management of forest landscape values in Departmental operations generally.

The Department recently expressed its concern for the status of some vegetation types in the State, particularly the brigalow and softwood scrub communities. Whilst their occurrence on State Forests was noted as being fragmented, the areas could nevertheless make a major contribution to supplementing National Park representation of these types, and work was commenced to develop conservation strategies for these and other non-commercial *vegetation types on State Forests and Timber Reserves*.

Following discussions with the Archaeology Branch of the Department of Aboriginal and Island Affairs, *appropriate management advice for different types of Aboriginal relics, and their relative importance, is being prepared for Forestry field officers with a view to identifying and preserving those occurring in State Forest*.

Wildlife Management

Ongoing zoological research directed toward conservation of wildlife in State Forest continued, and was expanded with the introduction of a major fauna study.

The fauna study, which commenced in the Conondale Range to examine the effect of logging on various animals, particularly aquatic animals, had been underway for about six months at the conclusion of the 1982-83 year. Probably as a result of the recent dry weather cycle the study has not yet located the elusive gastric brooding (platypus) frog, one of the creatures being studied in this major research activity. (See Research section for more details).

LAND USE AND INFORMATION

National Conservation Strategy for Australia

In June the Department was represented in Canberra at a national conference on developing a National Conservation Strategy for Australia.

The Draft Strategy adopted represented a consensus reached after more than two years of discussion and consideration involving various levels of government and industry, as well as academic and conservation interests.

The Department considers the Draft to be a positive and useful document, and is optimistic about the Strategy's prospects of achieving its purpose in providing guidelines for living resource utilisation on a sustainable basis to meet the present and future needs and aspirations of Australians.

Information Services

In recent years a heightened public awareness of, and interest in, forest management has occurred. In some cases the Department was criticised for its actions, with the most extreme viewpoint being that production management in native forests should be discontinued altogether.

Whilst the Department considered increased public attention a healthy community interest, it was also concerned that there should be a sound public appreciation of the potential of multiple uses of forests, the projected timber demand/supply position, and the long term impact of differing management options on the community. Without this, it is considered that there can be no constructive debate.

To assist with the dissemination of information the Department published, within the limits of its available staff, a variety of documents, brochures and information sheets to provide factual and technical information to allow balanced judgements to be made, with emotive arguments and issues put into a proper perspective. The written information was supplemented by face-to-face contacts such as Open Days at Beerwah and other centres, the RNA stand and numerous

other agricultural shows throughout the State where Forestry staff met and talked with the public.

A major publication released during the year was the position paper *Rainforest Research in North Queensland* which examined the research evidence collected over many years. The paper supported the validity of selective logging as part of the multiple use management of rainforest.

In May the *Conondale Range Management Plan* was finalised. This set out the preferred multiple use management strategy for this important native forest area.

Economic Conditions

Consistent with conditions in most sectors of the economy, the year proved very difficult for forest products

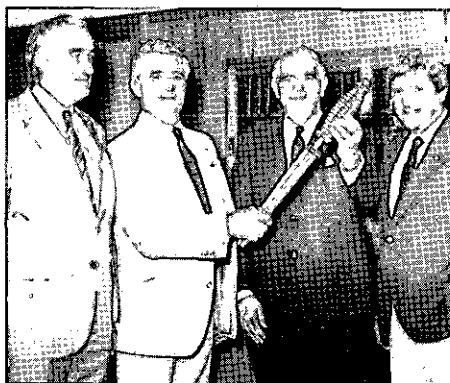
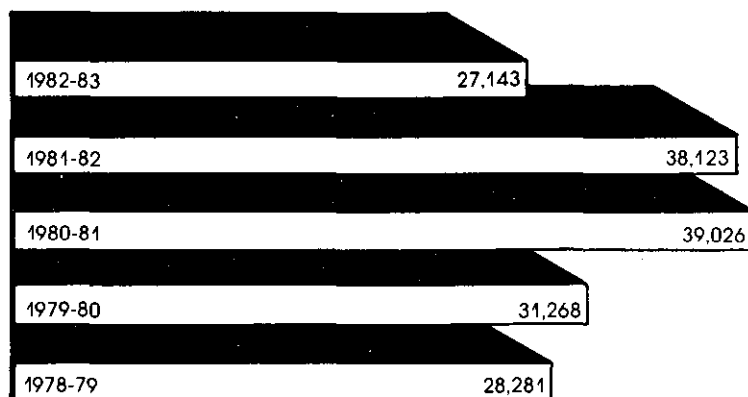
industries. The fall in building activity levels in Queensland in the second half of 1981-82 deepened considerably in 1982-83, affecting virtually all sectors of the wood producing industry.

The sawmilling sector was particularly affected by economic events being forced to compete, mainly against radiata pine imports from other states, for a place in the severely contracting local market.

The full extent of the recession was reflected in the dramatic decline in demand for new dwellings throughout the year (see graph).

Funding restrictions also forced the Department to trim expenditure on various works programmes during the year. The level of plantation establishment (4 830 hectares) was the lowest since 1967-68.

NEW DWELLING APPROVALS - QUEENSLAND (SEASONALLY ADJUSTED)



Top left: Conservator Jim Smart and Forestry Minister Bill Glasson receive ceremonial Commonwealth Games baton from Commonwealth Games Foundation Chairman Sir Edward Williams, and General Manager Dan Whitehead. The baton was recognition of Forestry's contribution in procuring timbers for the baton.

Bottom left: Final touches are added to a restored bullock wagon by wage pause employee Karen Tramacchi. The wagon now sits in the new Forestry museum at Gympie.

Top right: Camphor Laurels frame the new Forestry Museum, Gympie.

Bottom right: Forestry's brochures, information and free advice sheets, and other informative publications were in high demand during the year.



FOREST RESEARCH

Conondale Range Fauna Study

In 1982-83 a major research programme was commenced in the Conondale Range to measure the impact of logging on stream water quality, arboreal mammals, birds, and stream fauna — particularly the gastric brooding frog, the southern day frog and the giant spiny lobster.

Two catchment areas were selected for the hydrology and stream fauna studies and following an initial calibration period for assessment purposes, one catchment will be logged, then the effects of logging assessed by measuring differences between the catchments. Five sampling sites were established to measure stream sediment loads, stream chemical composition and temperature fluctuations.

The stream fauna study commenced assessing population densities of target species in the paired catchments, as well as establishing both their environmental and geographic range throughout the Conondales, and some aspects of the micro-habitat and ecology of the species. Several species of crayfish were found in Conondale streams, and the study also commenced examining their habitat requirements and distributions.

The studies of birds and arboreal mammals should establish the densities of all species occurring in the region and enable determination of population differences between logged areas and unlogged mature forest.

The fauna study will be conducted over a three to five year period in co-operation with the Queensland Museum and the National Parks and Wildlife Service. Members of the conservation movement participated in a search for the gastric brooding frog in April. Similar searches will be undertaken again in November 1983 with the onset of warmer weather.

Tree Decline in Rural Areas

A preliminary report on dieback surveys conducted in Queensland was presented to the Inter-departmental Committee on Tree Decline in Rural Areas in November. More than 200 property owners in 56 Shires of southern Queensland and northern New South Wales were interviewed in the survey. The survey revealed several main points:

- Dieback occurrence remained widespread with a large range of tree species affected. Species most at risk were river oak, narrow-leaved red ironbark, grey ironbark, red bloodwood, spotted gum, silver-leaved ironbark, yellow box and forest red gum. All age classes of trees were affected.
- Dieback was most severe in the Fitzroy, Wide Bay-Burnett, Moreton and Brisbane regions, and in parts of the Darling Downs.
- Property owners were aware of the widespread occurrence of dieback and the vast majority regarded it as a serious problem. Although most considered dieback to be caused by natural agencies such as insect attack, approximately 20 per cent of respondents to the survey thought that land management practices possibly contributed to the problem. About one third of the landholders surveyed had planted trees on their properties, generally for stock or pasture shelter and homestead beautification.
- Of serious concern was the number of landholders reporting some form of salinity of their properties. The survey indicated that salting became an increasing problem in 11 Shires of southern Queensland and 10 of these were areas of widespread dieback.

Detailed studies of river oak dieback in the Mary River catchment showed that a leaf eating chrysomelid beetle was a major contributing factor in *Casuarina* decline. However, there appeared to be a link between streamwater salinity and dieback. Significantly, mapping of dieback occurrences showed better water quality and less severe dieback along streams rising in the more heavily

RESEARCH

forested sections of the catchments. The effect of other factors such as soil borne pathogens, climate and land management practices continued to be investigated throughout the year.

Ips grandicollis

In November the exotic bark beetle, *Ips grandicollis*, commonly known as the southern pine engraver, was discovered in *Pinus* plantations in southern Queensland. The insect is native to North America where it continues to be a serious pest in slash pine and loblolly pine. It was accidentally introduced into South Australia (1943) and Western Australia (1950) via importation of pine timber with bark, from the United States. The insect was recently discovered in Victoria and is believed to have entered Queensland in unbarked pine logs from South Australia.

The insect prefers to attack recently felled trees and logging debris but can also infest and kill standing trees where beetle populations are high. The beetle carries with it a timber staining fungus which may aid in killing trees and can also degrade mill logs. It is capable of attacking all species of Pinaceae.

The insect became established in south-east Queensland and quarantine measures were instituted to check its rapid spread to other pine plantations in the State. *Ips grandicollis* was proclaimed a notifiable disease under the Diseases in Timber Act and the area from NSW/ Queensland border, north to Yandina and inland to Warwick was designated an infected area. The removal of logs or timber of *Pinus* species, with bark attached, or of *Pinus* species bark material, from this infected area without the approval of the Conservator of Forests is prohibited. Research on the behaviour and pest potential of the insect in Queensland commenced and arrangements were made for the importation and release of predators and parasites of *Ips* in Forestry plantations to assist in reducing the pest's populations.

Left: Conondale Range Fauna Study zoological assistant Christopher Corben checking for evidence of giant spiny lobsters in Booloolumba Creek.

Right: Controlled pollination of caribbean pine at Byfield State Forest. Overseer Ritchie Robinson attaches plastic bags assisted by Michael Howard.

Modelling Tree Growth

An accurate model for predicting growth in softwood plantations, developed by a Departmental researcher, was included in *Innovation in Australian Technology, 1981-1982*, published by the Australian Academy of Technological Sciences. The model, which was applied to all the major plantation softwood species grown in Queensland, provides estimates of growth and yield for assessing different management regimes.

Routine-Research Conference

A Departmental conference held in August enabled researchers and managers to discuss problems in native forest management. With changes in the resource base towards a greater availability of plantation softwoods, the management of native forests will evolve to meet varying community interests as well as supplying timber needs.

Rainforest Research in North Queensland

The Department issued a Position Paper, *Rainforest Research in North Queensland*, in which research was reviewed in areas of natural and artificial regeneration, silvicultural treatment, growth and yield, logging damage, species composition and dynamics, hydrology, fauna and conservation. It was concluded that selective logging for a sustained yield is compatible with other multiple use management objectives.



TIMBER UTILISATION RESEARCH

Clear Exterior Timber Finishes

A trial was established at Beerburum in early 1983 to survey the range of commercially available clear varnishes to test the validity of assumptions that clear timber finishes were not suited to the climate of Queensland. This was the first such test ever conducted locally.

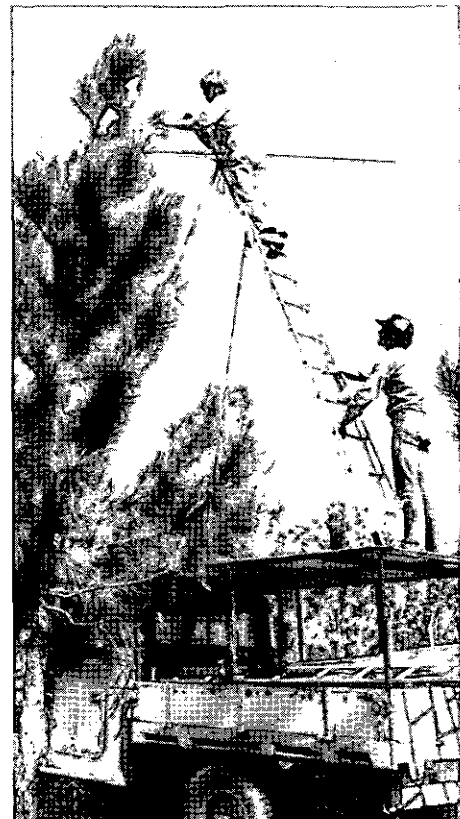
During the year testing of four products commenced. Finishes were applied to 10 sample board groups comprising six timber species, some of which were treated with copper chrome arsenic preservative or light organic solvent preservative. The species represent those often coated with clear finishes: hoop pine, slash pine, radiata pine, cypress pine, spotted gum and western red cedar.

To date, preliminary results do not allow for performance ratings but the survey will continue, and include new finishes as they appear on the market.

Experimental Kiln

The experimental timber drying kiln became fully operational in August 1982 and three research projects were completed:

1. Kiln heat loss. Kiln heat losses in reaching and maintaining a given temperature for one hour were established. This will permit the full economics of the drying of different timber species to be determined.



2. Thermocouple testing.

Thermocouples provide the most practical method for monitoring internal temperatures of timber specimens during drying, but they must be properly insulated. Otherwise heat transfer along the wire affects the measured temperature and the reading is not accurate. The project established the minimum wire insulation required, and the technique and proper procedure to be followed for correct readings to be obtained. The results were published in Queensland Department of Forestry Research Note No. 38, *Heat transfer along thermocouple wires*.

3. Drying end point determination.

During the year the relationship between measured internal specimen temperature and moisture content of timber was established, graphs produced, and commercial techniques developed. Simple temperature readings can now be used to indicate the moisture content of the charge. The electrical output of the measuring thermocouples can be used to stop the kiln when the required moisture content of the charge is reached. Full automation of high temperature drying is therefore now possible.

As the relationship is physical rather than biological and follows physical laws in a very uniform pattern, the procedure can be used to establish the drying end point for any softwood suitable for high temperature drying.

The report of the experimental kiln research, its control and monitoring systems has been published by the Australian Academy of Technological Sciences, in *Innovation in Australian Technology, 1981-1982*.



Right: Technical Assistant Don Barnes on a Forestry road in the Conondales during fauna study operations.

Insert:
Hoop pine seedlings being examined by researcher Ross Chestmaster at Gympie.

General

The review of the Department's organization during the year resulted in several changes in the operation of the Division.

A position of Chief Administration Officer was created and as divisional head, the officer is a member of the Executive which includes the Conservator, Deputy Conservator and Assistant Conservator.

The position of Director of Administration and Secretary to Conservator of Forests was abolished.

Two new positions at director level, Director of Organisational Services and Secretary, are now each responsible for three Branches of the Division which commenced operating under the new structure from 11 April. The expected improvement in efficiency has already become evident. Increased delegation of responsibility and authority contributed significantly towards goals, emphasising the need for senior officers to concentrate on policy, planning and major decisions.

Day to day operations and transactions are now kept at Branch level and the final stage of setting up the Branch structures is expected to be completed within a few months.

Administrative Services Branch

Administrative Services Branch as set up under the Departmental reorganisation includes Records, Typing, Stores and General Administration Sections. The important functions of co-ordinating the Departmental submissions for both the capital works programme, for forest development, and the Department of Works capital works — for buildings and housing requirements — were also added to the branch responsibilities.

Stores Section

The Department's purchasing procedures were modified during the year to enable selected country workshops to order replacement mechanical parts direct from suppliers rather than through the centralised Head Office purchasing system.

This modification which is being phased in progressively is presently functioning in the Department's larger workshops situated at Gympie, Maryborough, Beerburrum and Dalby. Other workshop centres will be introduced to the new system where practicable.

Experience in the larger centres demonstrated that the system improved efficiency, including reduction in the down time of machines under repair.

Direct ordering of catalogued items on State Stores Board by District Offices was facilitated during the year by the introduction by the Board of a computerised system. The effectiveness of the new system from the Department's viewpoint is still being monitored.

Accounting

During 1982-83, a new Kalamazoo cash receipting system for District Offices was developed and implemented. This system, designed to minimise the transcription of information and facilitate remittance of revenue to Head Office, proved to be very efficient.

The processing of all Departmental receipts and expenditure continued to be carried out in the Branch. There was a considerable increase in this activity over the last three years due to the centralising of processing procedures.

A need to update both systems and machinery to process data in relation to the Department's expenditure accounting has been identified. In addition, management information which the present system is not capable of providing without a high degree of manual intervention is a priority need. It has been recognised that computerisation of systems will be required to handle the volume of transactions.

ADMINISTRATION

MANAGEMENT SERVICES

Management Services officers were involved full time during the year as part of the team reviewing the Department's organisation.

As a result, there were significant changes to functional role responsibilities while restructuring to provide for three Departmental divisions took place.

The Review has been in three stages:

Stage One:	Executive level
Stage Two:	Branch Head level
Stage Three:	Below Branch Head level.

The three stages cover the total Departmental organisation, including Districts.

It is envisaged the Review will conclude in 1983 and that training and development associated with the Review will then commence.

AUTOMATED DATA PROCESSING

The computer system that produces stumpage accounts for south Queensland natural grown timber was modified in October to accommodate the invoicing of timber extracted by contractors to the Department and sold as logs to qualifying sawmills.

A further development of the computer system for sundry debtors for log timber and other forest products to produce statements of account and management reports near finalisation at the close of the year.

The management accounting system for the Department's mechanical plant and vehicle fleet also progressed to its final stage. Reports now becoming available are sufficiently comprehensive to be a valuable aid to management in the making of decisions relating to matters such as the setting of plant hire rates and in the selection of the most appropriate machines for specific operations, in addition to providing hire charges for usage of plant and vehicles.

A student from Mansfield State High School undertook work experience in computing with the Department. During his stay he was taught basic programming and was exposed to day to day computer operations.

LEGISLATION AND LEGAL

The Forestry Act was substantially amended during the year in conjunction with amendments to other Acts relative to National Parks and mining.

The *National Parks and Wildlife Act and Another Act Amendment Act 1982* allowed the Forestry Act to be divested of all provisions relating to National Parks which have been administered by the National Parks and Wildlife Service since 1975. The Forestry Act now deals exclusively with forestry matters.

The *Mining Act and Other Acts Amendment Act 1982* provided for the Conservator of Forests to grant to the holders of Miners Rights, Permits to Search for and Collect Minerals on certain State Forests or parts thereof which are to be declared by Order in Council as being available for such purposes. Such permits will be restricted to recreational fossicking.

Drafting is well advanced on further proposed amendments to the Forestry Act and on new legislation designed to update the provisions of the Timber Users' Protection Act. It is anticipated that both Bills will be presented to Parliament in 1984.

During the year, 100 incidents involving alleged breaches of the Forestry Act and two involving alleged breaches of the Sawmills Licensing Act were reported. Following investigation of these reports prosecution proceedings were assessed as warranted in 15 cases. Convictions were recorded in eight cases brought to hearing, six being related to incidents reported during 1981-82. In instances where prosecution was not considered warranted, letters of warning and/or demands for the recovery of

SUPPORT SERVICES

stumpage value and costs of investigation were placed on the offenders. An amount totalling \$9 460.62 was recovered as a result.

SURVEY AND MAPPING BRANCH

To help meet the Department's extensive surveying requirements, a licensed surveyor was seconded from the Department of Mapping and Surveying. The surveyor will act in an advisory capacity and also undertake cadastral surveys requiring registration.

Survey establishment methods were modernised further by the purchase of two additional electronic distance measuring units.

Low level aerial survey equipment was also improved. The Department's communications staff constructed a camera intervalometer and an inter-cockpit communication system for each of the four aerial survey units. This new equipment greatly assisted in capturing 70 millimetre aerial photographs of forested areas.

Research commenced into the use of satellite imagery to assist in the identification of forest vegetation types throughout the State. Results though inconclusive, were encouraging and it is proposed to monitor developments in this field.

Mapping of the forest estate at various scales was continued and details of maps completed during the year are provided in Appendix 16. Details of all maps published by the Department appear in the *Pictorial Index of Survey and Mapping Activities* prepared and published by the Department of Mapping and Surveying.

Forestry maps continued to be popular with users, particularly for recreation purposes. In a new initiative, the Department agreed to extend the marketing of its maps to "SUNMAP" centres and various other

agents. During the year Forestry maps valued at \$20 169 were sold to the public or to government authorities.

A Xerox 2080 plan printer was rented by the Department and provided an economical map and plan copying facility used extensively by numerous Government Departments.

Equipment used for the preparation of Forestry publications was updated. The Department purchased a Xerox 860 information processing system and rented a Xerox 9500 duplicating system. This equipment established a flexible in-house system which continues to satisfy most publication needs.

A revised computer-based register of the Department's plantation estate was completed, providing a wide flexibility of report format.

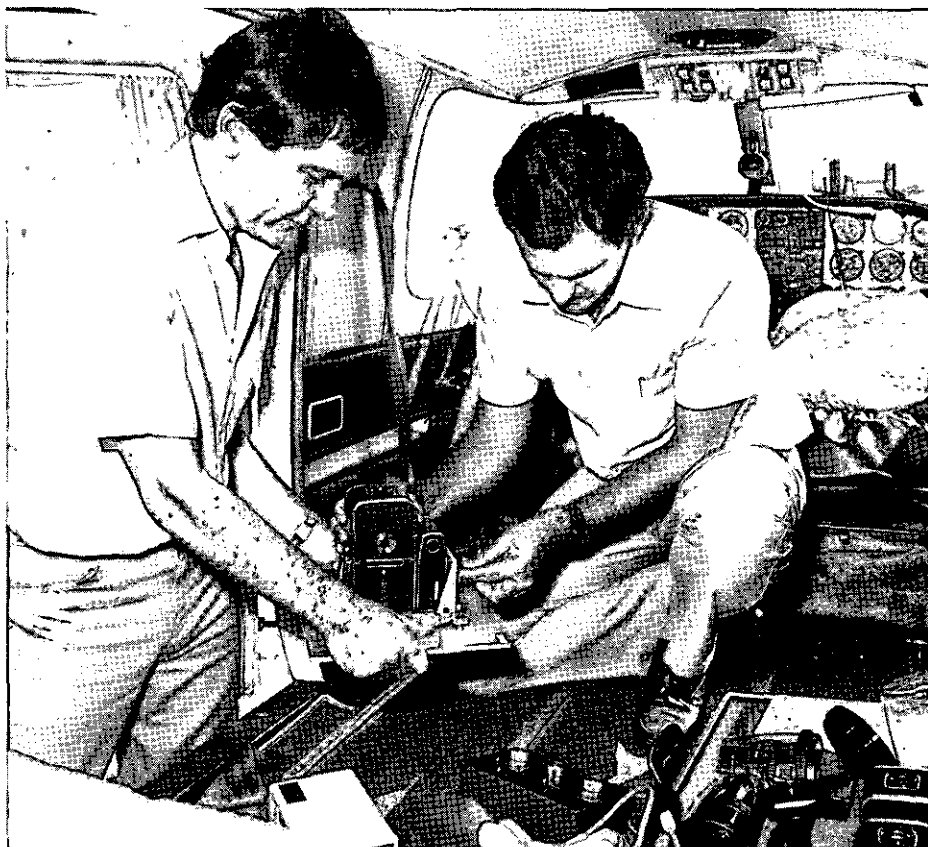


LIBRARY

Use of the Library remained high throughout the year with staff borrowing 7 247 items of which 753 items were inter-library loans. Library staff answered 1 840 reference inquiries and issued six bibliographies.

Gympie Library continued to develop, helped by an increase in working hours for the part-time Librarian. There, loans to staff in 1982-83 totalled 1 613 items of which 408 items were inter-library loans. Additionally 620 research articles were indexed into the library reprint collection. This collection has become a very useful reference tool for Gympie staff.

Plans for the Technical Services Library to be built at Indooroopilly were also finalised during the year.



Top left: Librarian Cathy Hunt with Administration Officer Graham Bryce at Forestry's Gympie Library.

Top right: From left to right: Janelle Long, Frances Flynn and Lauren Kelly at two of the terminals in Forestry's data processing section in Mineral House.

Right: Murray Willson and Lindsay Redlich from Survey and Mapping Branch prepare equipment for aerial photography of state forest areas.

PUBLIC RELATIONS

The Department continued to communicate actively with the public throughout the year. In a period when there has been a degree of uninformed criticism of the management of State Forests, the dissemination of accurate management information by the Department has sought to foster rational, rather than emotional debate.

Public relations efforts continued to elicit favourable responses from the public at large and helped create a greater awareness and understanding of Forestry's activities.

Forest recreation information remained an important facet of the public relations function. Explanation of forest management objectives and practices is also a continuing need.

EDUCATION (THE FORED PROJECT)

ForEd, a unique approach to the development of forestry-related educational resources for schools, commenced during the year with the appointment of a seconded teacher as co-ordinator.

The first phase of the project was the development of a rationale and framework for forestry education. Review of the draft framework was sought from teachers and interested sections of the community to ensure that the project presented a balanced perspective on forests. To enable this balanced approach to be reflected in the resources, two independent evaluation teams monitored materials development.

The teams consisted of practising teachers, and staff from Griffith University's School of Australian Environmental Studies.

The framework was revised in the light of the teams' comments and the final outline completed in March.

The second phase was the formation of groups of teachers involved in the subject areas of science, geography and manual arts. These teachers analysed the framework and translated it into the school curriculum by developing teaching strategies with supporting resources for each subject area.

The third phase will involve the production of these materials as developed by the teacher groups.

Finally, the project will be completed with a comprehensive programme of information dissemination and in-service application.

ForEd will eventually result in a number of subject Sourcebooks which will include a variety of teaching activities with references to the supporting resource materials.

During the year negotiations commenced to extend the ForEd concept nationally, with review and development committees established in other states.

OPEN DAYS AND DISPLAYS

Departmental participation in shows, displays and open days has become an increasingly important facet of liaison with the general public.

During the year, the RNA display had the theme, The Year of the Tree, while at the Forest Industries Fair the topic was Management of Forests in Queensland.

Open Day, held at Beerwah, attracted several thousand visitors and the increased emphasis on the work conducted by the various sections within the Department appeared to be greatly appreciated by them.

Involvement in country shows increased to 11 displays and several were jointly conducted with the Department of Primary Industries. This important cooperative initiative with the Soil Conservation Branch featured the growing of trees for soil conservation, shade, windbreak, and timber purposes. It is planned to foster such joint displays in the future.

The Department also participated in Festival '82 and compiled informative displays for a number of Career Markets.

EXTENSION SERVICES

SILVICULTURE

Throughout the year concessional schemes were continued for landholders who wished to purchase seedlings for forest plot, rehabilitation and windbreak purposes.

Silvicultural advice on all aspects of tree care again continued to be offered to the public free of charge and was well utilised.

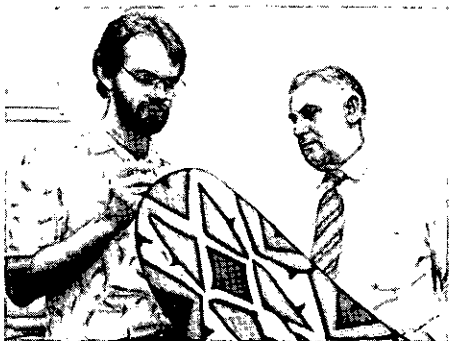
AMENITY NURSERIES

Almost one quarter of a million plants were sold from amenity nurseries in Brisbane and Dalby. In addition, a full range of information sheets and booklets covering all aspects of Forestry activities were available. Increased awareness of the usefulness of trees to the environment was generated by the National Tree Program and the Year of the Tree, and was reflected in increased utilisation of the nurseries.

THE TIMBER USERS' PROTECTION ACT (T.U.P.A.)

The number of complaints lodged with the Department under this Act during the year decreased. The main reasons for this were:

- More contact with the industry — stimulated by meetings prior to reviewing the provisions of the Timber Users' Protection Act.
- Inspections of the treatment plants at least every three months.
- Producers of timber from other states and overseas were more aware of the Act.
- The presence of officers in north Queensland, central Queensland and south Queensland effectively servicing the industry in the areas of utilisation and preservation, and the T.U.P.A. In short, there was very little trouble with Queensland producers. Timber imports from overseas and interstate were the main offenders, and these imports



also resulted in a lesser use of local hardwoods in home building.

As mentioned previously action is in hand to update provisions of the Act.

BIOLOGY

High demand for information on pests and diseases of trees, timber and other forest products by government, industry and consumers, illustrated the valuable extension role performed by the Biology Section. Through extension services the Section created awareness of problem areas and provided appropriate consumer and user education.

Progress was also made on publication of literature dealing with the most common pests and diseases.

Most enquiries concerned insect pests and were equally divided between forest products and tree problems. The Section was also involved in areas such as timber and plant quarantine and the decline of native trees on rural lands.

Growing demand for the service is indicated by the following figures:

Year	Enquiries Received
1978-79	628
1979-80	1 634
1980-81	2 097
1981-82	2 560
1982-83	2 832

The West Indian drywood termite eradication project continued throughout the year. A total of 5 096 enquiries relating specifically to the project have been received, processed, and where appropriate, fumigation of infested premises arranged. For the first time a publicity campaign on the subject was conducted in north Queensland and stimulated over 40 responses.

The provision of technical information for the preparation of responses on biological issues raised by conservation groups became a new and expanding area of involvement.



WOOD STRUCTURE

Extension work undertaken by the laboratory was for both government departments and the public. Generally queries concerned the identification of wood and tree root samples, while advice was also provided to the wood conversion industry on technical aspects of wood structure.

Three advisory leaflets dealing with tree roots in household drains, tree and timber identification services, and timber hand samples sold by the Department were published during the year.

TIMBER PRESERVATION

The laboratory continued to provide advice to the public on matters relating to the preservation of timber, and in particular, the range of treatment processes and chemicals currently in use.

One area of concern was the corrosion of metal in contact with wood. A survey of corrosion problems with copper chrome arsenic (CCA) treatment provided the basis for an advisory leaflet on the subject which detailed correct methods of nailing, bolting, or otherwise fastening preservative treated timber. The research findings were also presented in a scientific paper.

A course for preservative treatment plant operators was conducted in conjunction with the Timber Industry Training Committee with a view to maintaining high quality control standards.

TIMBER UTILISATION

The number of public and governmental inquiries received on timber utilisation continued to be high throughout the year and is expected to continue to increase with further use of timber in a wider range of applications.

The timber utilisation extension service began recording both the number and types of enquiries so that new publications could cater to high demand areas. Timber Notes and Advisory Leaflets were published on subjects most commonly raised. This work will continue as a integral part of the extension service.

The demand for identification of both sawn and finished timber increased, largely due to increased imports of both timber types from other countries.

Left: Forestry timber technician Myron Cause identifies the wood type used to make an aboriginal shield while Queensland Museum Curator of Ethnography Roger Hartley looks on.

Right: ForEd seminar participants discuss preparation of materials for schools.

General

The Personnel Branch was further consolidated during 1982-83. This involved the continuation of review of current personnel policies and practices, and the undertaking of a number of new projects. An investigation was begun into the feasibility of using in-house computing facilities to improve and streamline the personnel function. This facility would be designed to complement the Public Service Board "MANPOWER System" terminal which is expected to be installed in 1984. These two facilities will replace the present manual card system of maintaining personal records, and should provide aggregate data for future manpower planning and management decision making.

A major undertaking during the year was the review of the roles, duties, responsibilities and classifications of Forest Rangers. A team, co-ordinated by Personnel Branch, undertook a State-wide review, the results of which will become evident early in 1983-84.

Smaller projects included a clerical relief programme for administrative staff in Head Office, involving a system of grading unclassified clerical positions for the purpose of facilitating staff development through job rotation and improved procedures for staff selection panels.

Staff Establishment

In keeping with the Government's policy of zero growth, salaried staff remained at 645. Wages staff as at 30 June 1983 totalled 1 215, compared with 1 087 employees at 30 June 1982. Appendix 15 details the staff distribution at 30 June 1983.

PERSONNEL

A total of 54 salaried officers left the Department during the year, including 19 officers who transferred to other government departments and 11 officers who retired after long and meritorious service.

Overseas Travel

Under the auspices of the Public Service Overseas Travel Program, a number of officers visited other countries to attend work related conferences or to provide expertise in forestry techniques to developing countries.

The Department continued to be involved as managing agent for the Australian Development Assistance Bureau's China-Australia Forestry Project at the Dongmen State Forest Farm in China and also provided three resident advisors to the project.

During the year the following officers made visits under the Overseas Travel Program:

- Mr G. M. Shea — attended a Forest Research Director's Workshop in Hawaii, and inspected the Honduras Caribbean Pine Project of the Fiji Pine Commission.
- Dr D. G. Nikles — provided consultancy services to the Fiji Pine Commission on tree breeding, and attended a meeting in New Zealand of the International Union of Forest Research Organisations Working Party on Radiata Pine Breeding.
- Dr L. Leightley — attended the 1983 Symposium on Wood Preservation in Pretoria, South Africa, and inspected timber preservation plants and field exposure sites and held discussions with the National Timber Research Institute Laboratory in South Africa.

In addition, Mr J. A. Simpson, Forest Research Centre, Gympie, visited New Zealand under the Australia-New Zealand Forestry Officers Exchange Scheme.

Special Academic Awards

Two special academic awards were received by staff during the year. Forester P. J. Kanowski (Jnr) was announced a Rhodes Scholarship winner in February. Mr Kanowski will undertake three years PhD study at the Commonwealth Forestry Institute, Oxford, commencing October 1983.

Full-time assistance was provided to Forester J. Vanclay to enable him to accept the 1982 Russell Grimwade Prize. Mr Vanclay commenced his year-long Master of Science studies at the Commonwealth Forestry Institute, Oxford, in September.

Staff Education and Counselling

The past year again saw continuing and encouraging willingness on the part of staff to develop both their personal and professional skills through part-time studies.

The year also saw the introduction of a Departmental scheme to provide assistance to wages employees undertaking relevant part-time studies from the commencement of the 1983 academic year.

At 30 June 1983, there were 51 officers and three wages employees undertaking part-time educational courses under the various schemes, including 20 staff members who commenced courses in 1983.

The year saw the first full 12 months of operation of the counselling service under the Employee Assistance Scheme. This scheme provided professional and confidential counselling on staff personal problems, with referral to external agencies where appropriate. Career advice and information on available educational courses was also offered to interested staff.

Officer Inter-change Program

Interchanges were undertaken during the year by the following officers:

- Mr M. DeBaar — to C.S.I.R.O. Australian National Insect Collection, Canberra during November-December to study procedures to improve this Department's curation techniques, and to gain increased knowledge of several insect groups.
- Mr P. G. Foster — to Department of Primary Industries, Maryborough during February-April, to obtain knowledge and experience of soil conservation techniques, to be applied to exotic pine plantation establishments and logging operations.

Industrial

The Senior Personnel Officer responsible for industrial relations continued to visit Districts during the year, and obtained a greater appreciation of the working conditions and the problems being experienced by staff. There have been improvements in remuneration and conditions of employees generally, including:

- new arrangements for the issue of protective clothing and safety footwear to officers and employees;
- improved sick leave provisions for employees under the Forestry Employees' Award — State Government.

Discussions continued on new arrangements for officers performing additional duties during the fire season, and for employees engaged in fire detention.

As a result of discussions with managers, supervisors, employees and union representatives in relation to existing working conditions and any problems being experienced, a more harmonious relationship has been achieved.

The more proactive approach taken on industrial matters resulted in initiation of new policies, or changes to existing policies, with a view to improving employee conditions. This approach also minimised industrial action.

The officers who retired are:

Name	Position	Headquarters	Years of Service
Mr R. J. Arnold	Road Engineer	Atherton	31
Mr R. C. Barling	Administration Officer	Murgon	43
Mr A. A. Campbell	Forest Ranger Division II (Surveys)	Atherton	24
Mr R. J. Connell	Temporary Clerk	Brisbane	24
Mr K. J. Durham	Senior Forest Technician	Gympie	43
Mr A. W. Gardner	Officer-in-Charge Timber Utilisation Branch	Brisbane	42
Mr P. J. Hickey	Senior Forest Ranger	Rockhampton	32
Mr S. L. Laffey	Plant Inspector	Brisbane	36
Mr E. G. McLachlan	Forest Ranger Division II	Brooweena	36
Mr R. W. Schefe	Forest Ranger Division II	Toolara	31
Mr W. Smith	Senior Timber Technologist	Brisbane	35

It is with deep regret that the deaths are recorded of the following officers:

Name	Position	Headquarters	Years of Service
Mr P. J. Hawkins	Deputy Conservator of Forests	Brisbane	36
Mr D. S. L. Nolan	Administration Officer	Brisbane	41



Top left: Mark Dredge from the Gympie workshop was the first employee to participate in the S.A.W.S. scheme — he is currently undertaking a Diploma of Mechanical Engineering by external study.

Bottom left: Presentation of Special Achievement Award to Maryborough District Workshop. L to R: Foreman Bob Scott, Deputy Conservator John Kelly, Mechanic Peter Strazzabosco and District Forester Peter Tweedy.



Right: Safety Officer Barry Paterson uses a sight screener to test Overseer Scott Kleinschmidt's vision as part of the ongoing eye and ear testing conducted by the Department.



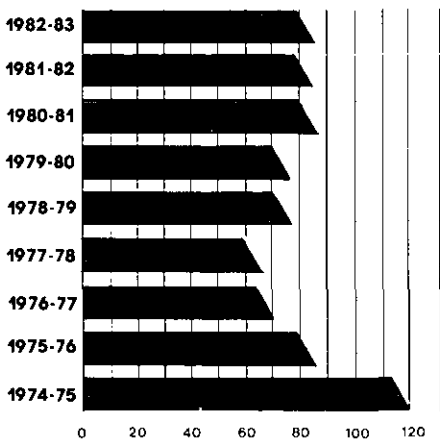
Safety

During the year, a hearing conservation and sight screening programme was introduced. The Safety Officer conducted audiometric (hearing) tests and sight screening at each District, with a total of 921 employees tested.

Safety training sessions for 210 employees, including the new forest trainees who received basic introduction to safety during their first week with the Department, were held by the Safety Officer. Seventy-nine supervisory staff completed accident prevention courses and 326 field staff attended general safety training sessions. The Department also utilised the training assistance provided by the Division of Occupational Safety.

The frequency of visits to all work areas of the Department by the Safety Officer and the level of safety training enabled the Department to maintain its safety record, despite the hazardous conditions to which many employees are exposed. Other safety initiatives resulted in improved respiratory protection for those employees engaged in spraying chemical solutions, fire fighting and groundworks.

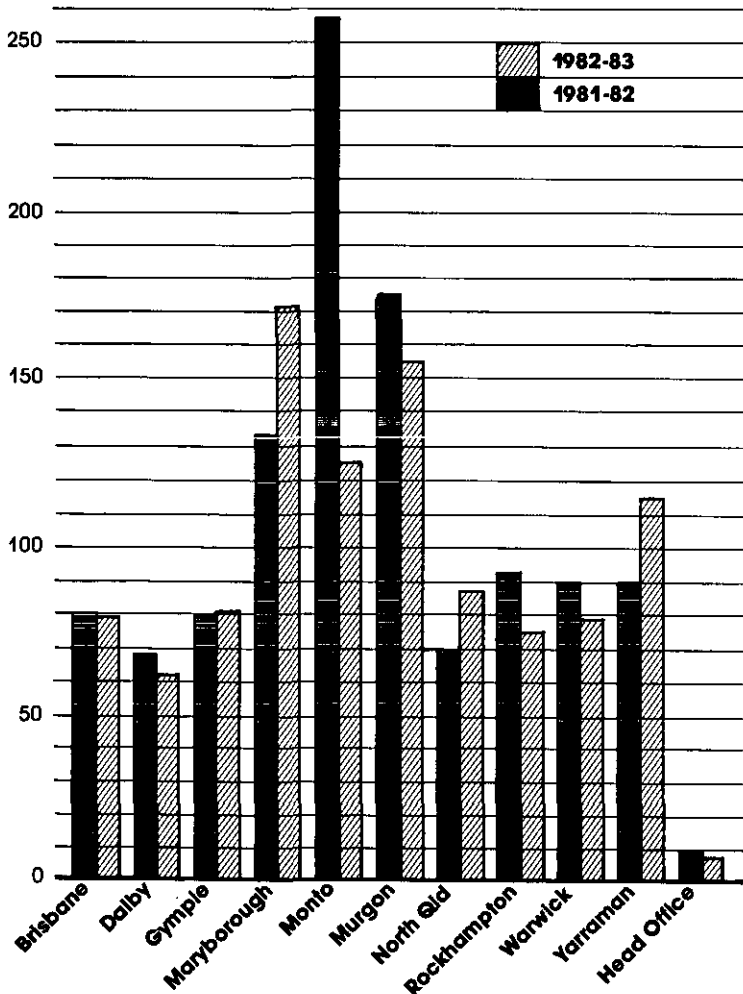
Lost time injury frequency rate since 1974-75



Maryborough District workshop staff received a Special Achievement Award for working in excess of 100 000 man-hours without a lost-time injury.

Dalby District won the annual Minister's Safety Shield Award for the lowest accident frequency rate. Monto District was awarded the Conservator's Safety Shield for the most improved accident-free record.

Lost Time Injury Frequency Rate by Districts



Employment of Disabled Persons

Three disabled persons were engaged on administrative duties during the year, following the introduction in 1981-82 of this scheme throughout the Public Service. The Department will continue to contribute to this important and worthwhile scheme whenever possible.

FORESTRY TRAINING CENTRE

A major advance during the year was the completion of the new conference room and an additional accommodation block at the Centre to meet its developing needs.

Both were designed in keeping with the original architecture and have been unobtrusively integrated with other buildings on the site. The Training Centre can now host a conference for up to 100 delegates, and provide single accommodation for up to 60 people. With the recent remodelling of the laboratory there are now four large training/conference rooms available, which allows up to three separate courses to use the centre at one time with minimal effect upon each other.

During the year, graduating trainees were presented with their Fellowship Certificates by the Conservator following completion of their two-year course. The graduation ceremony was attended by the families and friends of the trainees. To date 37 overseers have graduated since courses commenced in 1979 and the field performance of the graduates has been very satisfactory.

The third intake of 25 students selected during January, included four women. These were the first women trainees to be employed by the Department. A later addition to the group was three Fijian forestry employees who are undertaking the course by arrangement between the Department and its counterpart organisation in Fiji.

Graduates from the Gympie Training Centre.





APPENDICES

APPENDIX I

STATE FORESTS AND TIMBER RESERVES LISTED BY DISTRICTS AND SUB-DISTRICTS AT 30 JUNE 1983

District	Sub-District	No. of Reservations	State Forest Areas (hectares)	No. of Reservations	Timber Reserve Areas (hectares)
Brisbane	Beerburum	24	58 905.2080	2	256.5180
	Brisbane	25	48 385.2391	5	4 567.5211
	Total	49	107 290.4471	7	4 824.0391
Dalby	Chinchilla-	18	455 943.1920	1	5 768.0000
	Barakula	12	224 782.3250	2	150.2033
	Dalby	40	338 913.1430	1	19 652.9600
	Roma				
Total	70	1 019 638.6600	4	25 571.1633	
Gympie	Gympie	25	34 097.8680	—	—
	Imbil	8	51 100.0000	1	0.2094
	Toolara	6	52 376.8020	—	—
	Total	39	137 574.6700	1	0.2094
Maryborough	Bundaberg	17	116 060.7970	12	18 242.7860
	Maryborough	24	230 352.6260	7	9 427.6000
	Tuan	6	61 735.3000	1	2099
	Total	47	408 148.7230	20	27 670.5959
Monto	Kalpowar	9	28 780.4530	10	18 609.7609
	Monto	41	306 104.2790	7	7 466.8520
	Total	50	334 884.7320	17	26 076.6129
Murgon	Jimna	4	46 076.0000	1	1 860.0000
	Murgon	21	93 871.9110	6	3 981.4983
	Total	25	139 947.9110	7	5 841.4983
North Queensland	Atherton	30	363 840.9297	24	302 597.7807
	Ingham	18	288 209.1890	2	798.4000
	Total	48	652 050.1187	26	303 396.1807
Rockhampton	Emerald	15	135 210.7220	8	117 847.1000
	Mackay	23	115 539.5080	11	27 724.7008
	Rockhampton	35	487 201.1400	7	29 417.8990
	Total	73	737 951.3700	26	174 956.6998
Warwick	Inglewood	30	213 479.6470	—	—
	Warwick	18	38 109.7400	—	—
	Total	48	251 589.3870	—	—
Yarraman	Benarkin	14	48 395.8520	4	2 756.8240
	Yarraman	11	34 958.9428	2	7.4130
	Total	25	80 354.7948	6	2 764.2370
State Total		474	3 869 430.8136	114	571 101.2364

APPENDIX 2

RESERVATION FIGURES FOR THE YEAR ENDING 30 JUNE 1983

	No. of Reservations	Area (hectares)
STATE FORESTS		
Figures as at 1 July, 1982	472	3 829 067.2830
Declared	+	5 386.3620
Declared and added to existing State Forests	+	54 805.4379
Timber Reserves declared State Forest Timber Reserves declared State Forest and Amalgamated with existing State Forests Reservations Revoked	+	305.3000
Reservations partially Revoked		- 17 892.9400
Areas Released		- 102.5123
Recomputation of Boundaries		- 2 138.1170
Amalgamation of existing State Forests Parts of State Forest taken for Amalgamation with existing State Forest	-	5
Parts of State Forest Amalgamated with existing State Forest		- 15 020.4000
		+ 15 020.4000
Total as at 30 June 1983	474	3 869 430.8136
TIMBER RESERVES		
Figures as at 1 July, 1982	118	572 020.3556
Timber Reserves declared		
Timber Reserves declared State Forest Timber Reserves declared and added to existing Timber Reserves	-	2 305.3000
Amalgamation of existing Timber Reserves Timber Reserves declared State Forest and Amalgamated with existing State Forest		
Timber Reserves Revoked	-	2 253.3000
Timber Reserves partially Revoked		360.1000
Recomputation of Boundaries		
Areas released4192
Total as at 30 June, 1983	114	571 101.2364

APPENDIX 3

NET AREA OF SOFTWOOD PLANTATION ESTABLISHED

1st APRIL 1982 TO 31st MARCH 1983

— hectares—

District	Native Conifers			Exotic Conifers						Total Conifers	Total Conifers 1981-82	
	Hoop Pine	Total Native		Slash Pine		Caribbean Pine		Other Exotic Conifers				Total Exotic
				New Areas	Others	New Areas	Others	New Areas	Others			
Brisbane	—	—	—	—	—	256	—	—	—	256	256	382
Gympie	75	—	75	684	—	519	40	—	—	1 243	1 318	1 150
Maryborough	—	—	—	426	—	1 239	266	—	—	1 931	1 931	3 301
Monto	73	—	73	—	—	—	—	—	—	—	73	72
Murgon	149	—	149	—	—	—	—	—	—	—	149	197
North Old	—	2	2	—	—	699	7	17	—	723	725	553
Rockhampton	—	—	—	—	—	134	2	—	—	136	136	203
Warwick	—	—	—	—	4	—	—	—	25	29	29	128
Yarraman	143	70	213	—	—	—	—	—	—	—	213	325
Total	440	72	512	1 110	4	2 847	315	17	25	4 318	4 830	6 311
Total 1981-82	586	90	676	1 391	19	3 906	183	56	80	5 635	6 311	

APPENDIX 4

*NET AREA OF EFFECTIVE SOFTWOOD PLANTATION AS AT 31st MARCH, 1983

— hectares—

District	Native Conifers				Exotic Conifers				Total Conifers	Total 1981-82
	Hoop Pine	Bunya Pine	Other Native Conifers	Total Native	Slash Pine	Caribbean Pine	Other Exotic Conifers	Total Exotic		
Brisbane	1 420	7	4	1 431	13 444	1 751	1 952	17 147	18 578	18 335
Gympie	12 036	224	36	12 296	24 214	2 930	591	27 735	40 034	38 954
Maryborough	1 481	3	29	1 513	27 041	9 635	148	36 824	38 337	36 428
Monto	2 891	1	1	2 893	22	3	13	38	2 931	2 858
Murgon	8 346	126	1	8 473	—	—	47	47	8 520	8 376
North Old	1 022	1	107	1 130	4	5 306	223	5 533	6 663	5 972
Rockhampton	261	—	1	262	1 008	5 108	66	6 182	6 444	6 306
Warwick	13	1	1	15	348	—	2 282	2 630	2 645	2 678
Yarraman	14 643	117	4	14 764	511	401	1 690	2 602	17 366	17 203
Total	42 113	480	184	42 777	66 592	25 134	7 012	98 738	141 515	137 110
Total 1981-82	41 632	476	184	42 292	65 768	22 004	7 046	94 818	137 110	

* The net effective area as at 31.3.83 consists of the net effective area as at 31.3.82 plus the net area established during 1982-83 less corrections for write-offs, replantings, boundary recomputations and re-checks.

APPENDIX 5

*NET AREA OF EFFECTIVE BROADLEAVED PLANTATION AS AT 31st MARCH, 1983

— hectares—

District	Native Forest Hardwoods					Other Broadleaved Species	Miscellaneous Species	Total	Total 1981-82
	Rose Gum and Sydney Blue Gum	Grey Iron-bark	Black-buff	Other Native Forest Hardwoods	Total Native Forest Hardwoods				
Brisbane	130	84	91	42	347	1	16	364	372
Gympie	385	107	111	157	760	89	6	855	1016
Maryborough	—	—	48	1	49	2	26	77	96
Murgon	8	6	3	—	17	9	—	26	27
Rockhampton	—	—	—	—	—	1	3	4	5
North Old	1	12	—	13	26	142	13	181	183
Warwick	—	—	—	—	—	1	4	5	10
Yarraman	43	128	—	4	175	43	21	239	256
Total	567	337	253	217	1 374	288	89	1 751	1 965
Total 1981-82	668	387	254	223	1 532	286	147	1 965	

* Previous figures have been adjusted for write-offs, replantings, boundary recomputations and re-checks.

APPENDIX 6

AREAS OF NATURAL FOREST TREATED 1982-83

— hectares —

District	Eucalyptus Forests	Cypress Pine Forests	Total	Total 1981-82
Brisbane	297	—	297	110
Dalby	—	6 374	6 374	6 387
Gympie	32	—	32	747
Maryborough	106	—	106	25
Monto	279	—	279	67
Murgon	145	—	145	25
Rockhampton	—	—	—	—
Warwick	—	1 362	1 362	1 556
Yarraman	10	—	10	30
Total	869	7 736	8 605	8 947
Total 1981-82	1 004	7 943	8 947	

APPENDIX 7

OPERATIONAL STATISTICS

1981-82		1982-83
6 314	Softwood Plantation Establishment (hectares)	4 830
	Nursery Stock* Departmental Use —	
692 100	Hoop Pine —	
	Container	726 100
465 000	Caribbean Pine —	
4 342 800	Container	436 300
	Open Root	3 888 100
1 526 800	Slash Pine —	
	Open Root	1 558 500
120 200	Radiata Pine —	
	Open Root	37 200
Nil	Loblolly Pine —	
12 800	Open Root	24 200
	Container	Nil
4 700	Caribbean/Slash Hybrid —	
	Open Root	950
70 500	Eucalypts — Others —	
	Container	102 568
	Nursery Stock, Sales —	
725 250	Forest Plots	686 800
334 052	Amenity Stock	442 300
\$286 214	Total value of seedlings sold	\$245 974
	Seed Sold —	
\$62 630	Value	\$103 546
	Weed Control —	
12 909	Native Pine Plantation (hectares)	12 816
9 333	Exotic Pine Plantation (hectares)	11 084
	Fertilizing —	
4 239	New Areas Fertilized (hectares)	3 955
680	Old Areas Refertilized (hectares)	192
	Pruning —	
3 428	First (hectares)	3 771
2 208	Final (hectares)	2 871
	Operative Plant as at 30th June —	
462	Motor Vehicles and Trucks	465
20	Graders	20
91	Rubber-tired Tractors and Loaders	91
41	Crawler Dozers	41

* All Departmental use information refers to the 12 month period 1 April to 31 March.

APPENDIX 8

MILLING TIMBER REMOVALS UNDER HAULAGE CONTRACT

The table shows the quantities hauled and payments made for the haulage of milling timber by contractors to the Department.

— cubic metres gross measure —

	South Queensland							North Queensland		Total	
	Hoop Pine	Forest Hardwoods	Rainforest Structural Timbers	Prime Cabinet-woods	Misc. Cabinet-woods	Total Volume	Payments Made (\$)	Prime Cabinet-woods	Payments Made (\$)	Volume	Payments Made
1982-83	6 254	20	—	10	52	6 336	231 523	21	792	6 357	232 315
1981-82	13 775	17	66	21	41	13 920	361 962	175	4 619	14 095	366 581

APPENDIX 9

MILLING TIMBER REMOVALS FROM CROWN LAND

— cubic metres gross measure —

NATIVE FORESTS

District	Forest Hardwoods	Rainforest Structural Timbers	Prime Cabinet Woods	Misc. Cabinet Woods	Hoop, Bunya, Kauri, Pines	Cypress Pine	Other Pines	Total	Total 1981-82
Brisbane	17 702	63	—	220	302	116	—	18 403	24 568
Dalby	16 784	—	—	—	—	56 221	—	73 005	134 810
Gympie	20 518	179	6	533	1 583	—	—	22 819	31 229
Maryborough	33 865	10	10	7	9 273	—	—	43 165	62 107
Monto	26 212	—	—	—	2 943	—	—	29 155	48 116
Murgon	30 565	165	13	227	1 654	—	—	32 624	28 991
North Qld	10 910	42 598	24 375	38 491	3 216	—	343	119 903	155 573
Rockhampton	34 453	3 963	96	1 277	610	805	—	41 204	52 152
Warwick	1 960	1 155	—	—	576	15 476	—	19 167	30 404
Yarraman	4 866	208	1	58	1 676	—	20	6 829	7 310
Total	197 835	48 341	24 501	40 813	21 833	72 618	333	406 274	575 260

Total 1981-82	254 241	67 869	29 516	52 291	36 347	134 685	311	575 260
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PLANTATIONS

District	Native Conifers	Exotic Conifers	Non-Conifers	Total	Total 1981-82
Brisbane	2 032	38 362	300	40 694	57 420
Gympie	20 163	11 969	—	32 132	44 426
Maryborough	944	14 992	—	15 936	16 944
Monto	5 286	417	—	5 703	8 460
Murgon	6 544	—	—	6 544	10 165
North Qld	1 508	—	—	1 508	5 828
Rockhampton	—	7 410	—	7 410	10 024
Warwick	—	9 870	—	9 870	12 847
Yarraman	27 596	5 388	187	33 171	57 233
Total	64 070	88 408	487	152 965	223 347

Total 1981-82	95 927	126 035	1 385	223 347
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APPENDIX 10

PULPWOOD REMOVALS FROM CROWN LAND

— cubic metre gross measure —

Forest	Species	District					Total	Total 1981-82
		Brisbane	Gympie	Maryborough	Murgon	Yarraman		
Plantation	Native Conifers	—	976	—	2 894	—	3 870	11 538
Plantation	Exotic Conifers	21 444	16 766	6 480	75	5 873	50 638	68 288
Native Forest	Non Conifers	—	—	—	—	2 159	2 159	—
Total		21 444	17 742	6 480	2 969	8 032	56 667	79 826

Total 1981-82	32 223	21 810	16 174	2 920	6 699	79 826
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APPENDIX 11

MISCELLANEOUS REMOVALS FROM CROWN LANDS

1981-82	Product	1982-83	Unit
	Miscellaneous Timber Products		
	Sleepers —		
1 801	1.2 metres	—	pieces
411 075	1.5 metres	55 657	pieces
—	1.8 metres	—	pieces
6 052	2.0 metres	2 478	pieces
3 361	2.1 metres	2 589	pieces
213 472	2.15 metres	278 089	pieces
19 817	2.45 metres	1 316	pieces
	Transoms, Headstocks		
7 440	Crossings, etc.	1 003	cubic metres
508	Turnout Timbers	780	cubic metres
464	Bridge Timbers	184	cubic metres
20 459	Girders, Corbels, Piles and Sills	28 975	metres
192 511	Poles	78 089	metres
124 031	Fencing Material — Round	173 928	metres
258 489	Fencing Material — Split	250 143	pieces
84 713	Mining Timber — Round	96 388	metres
438	Mining Timber — Sawn	706	cubic metres
1 408	Mining Timber — Others	1 873	pieces
113 647	Round Timber	88 539	metres
94	Head and Limb Logs	234	cubic metres
1	House Blocks	24	metres
535	Offcuts	743	cubic metres
1 122	Offcuts	2 359	pieces
7 323	Stakes	5 291	pieces
—	Stumps	8	cubic metres
15	Boat knees	19	pieces
—	Black Waffle	10	pieces
182	Chopping Blocks	288	metres
4 141	Fuelwood	3 815	tonnes
82 502	Landscape Timber	33 053	pieces
—	Landscape Timber	737	cubic metres
—	Leaf Mould	2	bags
11	Charcoal	75	tonnes
—	Mulga Wood	1	tonnes
5	Pine Cones	4	cubic metres
—	Flitches	27	cubic metres
—	Thinnings	120	tonnes
8	Ironbark Bark	—	bags
8	Tea Tree Bark	—	cubic metres
18	Other Bark	6	tonnes
—	Fibre	1	cubic metres
	Non-timber Products		
1	Beehives	7	number
8 493	Flora	8 280	pieces
28	Lawyer Cane	58	tonnes
44	Peat	32	tonnes
1 475 420	Quarry Material	2 055 092	cubic metres
3	Slate	63	cubic metres

APPENDIX 12

MILLING TIMBER PROCESSED FROM PRIVATE LANDS 1982-83

— cubic metres gross measure —

Species	North Qld	Brisbane	Dalby	Gympie	Maryborough	Monto	Murgon	Rockhampton	Warwick	Yarraman	Total 1982-83	Total 1981-82*
Hoop, Bunya and Kauri Pines	55	1 175		202	1 184	29	854	772	382	642	5 295	6 480
Cypress Pine	8	14	27 075		37			363	9 181	117	36 795	60 977
Other Pines		368	200					73	369	164	1 174	904
Forest Hardwoods	3 094	61 409	13 556	17 829	64 968	26 629	8 398	46 538	6 351	17 743	266 515	345 398
Rainforest Structural Timbers	8 797	115		71	186			581	63		9 813	11 297
Prime Cabinetwoods	1 638	14			10			101			1 763	2 012
Miscellaneous Cabinetwoods	6 629	311		590	4			879		10	8 423	6 043
Plantations — Native Conifers	23	464							112	32	631	673
Plantations — Exotic Conifers	223	1 663			2				330	116	2 334	6 638
Imported		4 788						3	2 025		6 816	4 120
Total	20 467	70 321	40 831	18 692	66 391	26 658	9 252	49 310	18 813	18 824	339 559	441 542

* B. Volumes shown in the above table have been estimated due to incomplete statistics being available at time of compilation.
Corrected Figures.

FOREST PRODUCE AND FOREST INDUSTRIES

PULPWOOD PROCESSED FROM PRIVATE LANDS 1982-83

— cubic metres gross measure —

Species	Brisbane	Total 1982-83	Total* 1981-82
Forest Hardwoods	56 401	56 401	65 870
Plantations — Exotic Conifers	4 158	4 158	20 578
Total	60 559	60 559	86 448

* Corrected Figures.

APPENDIX 13

COMPARATIVE STATEMENT OF RECEIPTS FOR THE YEARS 1981-82 AND 1982-83

Receipts Previous Year	Particulars of Receipts	Estimate	Receipts	Receipts Compared with Estimates	
				Greater	Less
\$	CONSOLIDATED REVENUE FUND	\$	\$	\$	\$
84 443	Miscellaneous Receipts—				
5 571	Expenditure Recovered	27 250	67 526	40 276	
9 805	Dongmen Forest Farm Project	1 750	1 482		268
Nil	Other	5 000	5 540	540	
	Sale of Government Property	Nil	28 900	28 900	
80 819	Totals	34 000	103 448	69 716	268
\$	LOAN FUND	\$	\$	\$	\$
326 704	Sale of Vehicles and Plant	500 000	296 453		203 547
5 474	Excess Plant Hire	36 300	9 096		27 204
244 768	Miscellaneous	Nil	38 737	38 737	
576 946	Totals	536 300	344 286	38 737	230 751
\$	FORESTRY AND LUMBERING FUND	\$	\$	\$	\$
12 433 765	Timber Revenue	12 050 000	11 490 445		559 555
4 605 018	Plant Hire	5 070 700	5 214 032	143 332	
786 018	Miscellaneous	1 138 000	845 843		292 157
69 127	Flood Relief	68 300	39 876		28 424
5 750	Aboriginal Advancement Grant	4 500	4 500		
Nil	Other	Nil	53 269	53 269	
365 673	TRADAC	315 000	264 796		50 204
1 227 200	Dongmen Project	638 300	645 000	6 700	
19 492 551	Totals	19 284 800	18 557 761	203 301	930 340
\$	FORESTRY DEVELOPMENT FUND	\$	\$	\$	\$
15 430 000	Loan Fund	17 115 000	17 115 000		
4 000 000	Special Projects Fund	5 000 000	7 347 499	2 347 499	
783 757	Softwood Agreement Act	70 000	261 337	191 337	
224 059	Aboriginal Advancement Grant	110 500	110 500		
5 100	Other	Nil	64 015	64 015	
20 442 966	Totals	22 295 500	24 898 351	2 602 851	

Statement of the transactions of the Forestry Development Fund of the Trust and Special Funds administered by the Department of Forestry during the year ended 30 June 1983

Previous Year 1981-82		1982-83
\$		\$
37 472	Balance of the Fund at 1 July 1982	35
20 442 966	Add Receipts (as per statement appended to Departmental appropriation account)	24 898 351
20 480 403	Less Expenditure (as per Departmental appropriation account)	24 835 284
Nil	Net increase or decrease in Investments	Nil
35	Balance of the Fund at 30 June 1983	63 102

Statement of Transactions of the Forestry and Lumbering Fund of the Trust and Special Funds administered by the Department of Forestry during the year ended 30 June 1983

Previous Year 1981-82		1982-83
\$		\$
158 603	Balance of the Fund at 1 July 1982	152 553
19 492 551	Add Receipts (as per statement appended to Departmental appropriation account)	18 557 761
19 498 601	Less Expenditure (as per Departmental appropriation account)	18 587 289
Nil	Net increase or decrease in Investments	Nil
152 553	Balance of the Fund at 30 June 1983	123 025

APPENDIX 14

DEPARTMENTAL APPROPRIATION ACCOUNT FOR 1982-83

1981-82 Expenditure	Note Ref. No.	Headings of Expenditure	Appropriations	Subdivisional Transfers	Appropriations as adjusted by Subdivisional Transfers	Total Expenditure	Unforeseen Expenditure -- Amount to be Appropriated	Lapsed Appropriations
\$			\$	\$	\$	\$	\$	\$
		CONSOLIDATED REVENUE FUND --						
		Supply Services and Unforeseen Expenditure --						
11 356 780		Salaries	12 416 000	—	12 416 000	12 404 889	—	11 111
63 809		Termite Eradication	45 000	8 800	36 200	35 838	—	362
88 093		Fores, Printing, Stores &c	108 674	—	108 674	98 673	—	10 001
1 430 629		Travelling Expenses and Incidentals	1 725 734	8 800	1 734 534	1 783 545	49 012	—
298 096	1	Recreation Facilities -- Maintenance	317 942	—	317 942	373 585	55 643	—
146 473	2	Cash Equivalent of Long Service Leave	160 000	—	160 000	217 403	57 403	—
43 393 580		Total -- Consolidated Revenue Fund	44 773 350	—	44 773 350	14 913 633	161 758	21 474
		LOAN FUND --						
		Supply Services and Unforeseen Expenditure --						
		Forestry --						
115 431	3	Recreation Facilities -- Construction	85 000	—	85 000	123 150	38 451	—
15 430 000		Amount credited to Forestry Development Fund	47 115 000	—	47 115 000	47 115 000	—	—
15 545 431		Total -- Loan Fund	47 200 000	—	47 200 000	47 238 150	38 451	—
		TRUST AND SPECIAL FUNDS --						
		Supply Services and Unforeseen Expenditure --						
		Forestry and Lumbering Fund --						
7 319 267		Interest and Redemption on Loans	6 275 770	—	6 275 770	6 020 038	—	255 732
1 499 847		Contract Timber Supplies	1 700 000	—	1 700 000	1 660 687	—	39 313
3 616 806		Marketing	4 289 840	—	4 289 840	3 764 839	—	525 001
899 982		Roads -- Maintenance and Subsidies	1 026 000	—	1 026 000	1 031 602	5 602	—
4 143 969		Maintenance of Plant	4 560 000	—	4 560 000	4 691 719	131 720	—
410 998		Maintenance of Capital Improvements	480 000	—	480 000	479 000	—	1 000
1 227 066		Dangmen Project	638 434	—	638 434	645 133	6 699	—
371 659	9	Amount transferred to TRADAC	436 000	—	436 000	294 271	—	141 729
19 498 601		Total -- Trust and Special Funds	19 406 044	—	19 406 044	18 587 289	144 021	982 775
		Forestry Development Fund --						
17 471 226	3	Reforestation	18 395 535	—	18 395 535	20 600 617	2 205 083	—
770 286		Land Acquisition	800 000	—	800 000	741 403	—	58 592
1 149 898		Purchase of Plant	1 800 000	—	1 800 000	1 800 075	75	—
1 088 993	3	Roads Construction	1 300 000	—	1 300 000	1 693 184	393 185	—
20 480 403		Total -- Forestry Development Fund	22 295 535	—	22 295 535	24 836 264	2 598 343	68 592
39 979 004		Total -- Trust and Special Funds	41 701 579	—	41 701 579	43 422 572	2 742 364	1 021 367
68 918 015		TOTAL -- ALL FUNDS	73 674 929	—	73 674 929	75 574 356	2 942 273	1 042 841

Notes to Appropriation Account

Explanation of the causes of variation between expenditure and appropriation

- Note Ref. No.
1. The additional expenditure of \$55 643 was incurred due to an increase in the rate of visitation to State Forests resulting in a need to provide new services to maintain facilities at a reasonable standard.
 2. Procedure requires that this appropriation be based on known resignations and retirements. Unexpected resignations have resulted in excess expenditure.
 3. A special allocation of additional funds for employment creating projects through the State Government's special works programme made possible additional expenditure during the 1982-83 financial year.
 4. Expenditure was reduced by \$525 001 due to the following reasons:—
 - (a) a significant shortfall in anticipated sales of plants resulted in reduced production costs associated with the raising of plants for sale. Reduced expenditure in this area amounted to \$207 000.
 - (b) the downturn in the demand for plantation milling timbers resulted in reduced marketing costs.
 5. Expenditure was substantially reduced due to a corresponding shortfall in revenue received by TRADAC on account of royalty from crown timber sales. The reduction in expenditure was mainly due to (a) the deferment of planned projects and replacement of motor vehicles, and (b) the cancellation of planned market surveys and new technical field services.

Losses

Losses of or deficiencies in public moneys or other moneys —		
Losses by stealing or any other offence (1 case)		\$27
Losses of or deficiencies in public property or other property —		\$
Losses by stealing or any other offence (25 cases)	4 698	
Losses due to destruction or damage caused by incidents beyond the control of any responsible person (2 cases)	186	
Stocktaking and property inventory check deficiencies where there is suspicion of fraud, theft or the like (5 cases)	1 005	
Other losses (1 case)	11	
		\$5 900
Gifts of Property Made (1 case)		\$7 200
Loan Indebtedness		\$250 536 787

Certificate of Accountable Officer

I certify that, in my opinion —

- (a) the foregoing appropriation account and appended notes are in accordance with the accounts and records of the Department and have been properly drawn up to show a true and fair view of transactions for the financial year ended 30th June, 1983 on a basis consistent with that applied in respect of the financial year last preceding;
- (b) expenditure indicated in the account has been correctly charged in accordance with section 27 of the *Financial Administration and Audit Act 1977-1981* and is fairly set out to show the disposal of moneys issued out of the public accounts by the Treasurer for the use of the Department.

16th September, 1983

J. A. J. SMART,
Conservator of Forests.

Certificate of the Auditor-General

I have examined the accounts of the Department of Forestry for the financial year ended 30th June, 1983 as required by the *Financial Administration and Audit Act 1977-1981* and certify as follows:—

- (i) I have received all information and explanations which I have required;
- (ii) sums issued out of the public accounts by the Treasurer in pursuance of sections 30 and 31 of the aforementioned Act for the use of the Department have, in my opinion, been properly accounted for; and
- (iii) the foregoing departmental appropriation account and notes thereto are in agreement with the accounts and records of the Department required by law to be kept and, in my opinion, have been properly drawn up so as to present a true and fair view of transactions for the financial year ended 30th June, 1983 on a basis consistent with that applied in respect of the financial year last preceding.

22nd September 1983.

P. N. CRAVEN,
Auditor-General of Queensland.

APPENDIX 15

STAFF DISTRIBUTION – 30th JUNE, 1983

	Head Office	District	Total	Total 1981-82
*Salaried Officers –				
Graduate	95	65	160	140
Technical	76	36	112	111
Field Supervisory	6	101	107	111
Administrative/Clerical	133	124	257	265
Miscellaneous	8	1	9	15
Sub-total	318	327	645	642
Wages Employees –				
Reforestation	14	871	885	776
Marketing and Resources	22	113	135	130
Road Construction and Maintenance	—	47	47	51
Maintenance of Plant and Capital Improvements	7	103	110	113
Recreational Facilities – Construction and Maintenance	—	28	28	11
Miscellaneous	—	10	10	6
Sub-total	43	1 172	1 215	1 087
Total	361	1 499	1 860	1 729
Total 1981-82	331	1 398	1 729	

* Figures in this category are based on Public Service Board Establishment and not on actual staff numbers as in previous years.

APPENDIX 16

PUBLICATIONS — GENERAL

INFORMATION SHEETS

- 17. IPS Grandcollis in Queensland Pine Plantations
- 18. Native Tree Dieback
- 19. Rainforest

Posters

- | | |
|---|--|
| Forest Type Series
(All full colour) | No. 2. Dry Sclerophyll forest
No. 3. Rainforest
No. 4. Cypress pine forest
No. 5. Hoop pine forest
No. 6. Exotic pine forest |
|---|--|

Year of the Tree Poster set of four

Brochures

- Forest Management Conondale Range — full colour booklet
- Rainforest — full colour booklet

- Four Wheel Drives and State Forests
- Four Wheel Drives in State Forests in the Brisbane Area
- Orienteering in State Forests in the Brisbane Area
- Camper Registration — State Forest Parks 1983

Periodicals

- "Between the Leaves" (Departmental Newsletter)

PUBLICATIONS — MAPS

Scale 1:15 000

Reference Map Name	Edition	District
Beerburum West State Forest (Sheet 2)	1	Brisbane
Byfield State Forest (Sheet 2)	3	Rockhampton
Cooran State Forest	2	Gympie
Geham State Forest	2	Yarraman
Imbil State Forest (North Sheet)	5	Gympie
Kalpawar State Forest	2	Monto
Kentilworth State Forest	5	Gympie
Palen State Forest	2	Brisbane
Ringtail State Forest	2	Gympie
Toolara State Forest (Sheet 2)	5	Gympie
Toolara State Forest (Sheet 3)	3	Gympie
Toolara State Forest (Sheet 4)	3	Gympie
Toolara State Forest (Sheet 11)	4	Gympie
Toolara State Forest (Sheet 12)	4	Gympie

Scale 1:25 000

7964-21 Kambul	1	North Queensland
8061-21 Mount Macalister	2	North Queensland
8061-22 Abergowrie	2	North Queensland
8061-23 Mount Echo	2	North Queensland
8061-24 Mount Thorn	2	North Queensland
8062-41 Mount Father Clancy	1	North Queensland
8062-42 Karang Garee Falls	1	North Queensland
8062-43 Mount Koolmoon	1	North Queensland
8064-33 Clohesy	1	North Queensland
8064-34 Kowrowa	1	North Queensland
8064-42 Buchan Point	1	North Queensland
8064-43 Wangeffi	1	North Queensland
8556-12 Birds Nest Creek	1	Rockhampton
8556-13 Mount Campbell	1	Rockhampton
8556-21 Mount Crompton	1	Rockhampton
8556-22 Ernest Creek	1	Rockhampton
8556-23 Urannah	1	Rockhampton
8556-24 Starvation Creek	1	Rockhampton

Bauple State Forest	1	Gympie and Maryborough
Bulburin State Forest	1	Maryborough and Monto
Deer Reserve State Forest	1	Brisbane
Deongwar State Forest	1	Yarraman
Main Range	4	Warwick

Scale 1:50 000

Reference Map Name	Edition	District(s)
8746-4 Belington Hut	1	Dalby
8747-2 Glenhaughton	1	Dalby, Rockhampton
8945-1 Warranna	1	Dalby
8945-2 Wongongera	1	Dalby
9045-1 Cadarga	1	Dalby, Monto
9045-2 Durah	1	Dalby
9045-3 Barakula	1	Dalby
9045-4 Coondarra	1	Dalby
9145-1 Boondooma	1	Monto, Murgon
9145-3 Durang	1	Dalby, Monto
9145-4 Manogorilby	1	Dalby, Monto
9343-2 Mount Hallen	2	Yarraman
9347-1 Childers	2	Maryborough
9347-2 Duckinwillia Creek	2	Maryborough
9443-2 Samford	3	Brisbane
9444-2 Woodford	3	Brisbane, Gympie
9445-1 Wolvi	3	Gympie
9446-4 Maryborough	3	Maryborough
Toolara State Forest & Surrounds	1	Gympie
Tuan State Forest & Surrounds	2	Maryborough

Scale 1:100 000

Fraser Island	1	Maryborough
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Scale 1:500 000

South West Queensland	2	—
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APPENDIX 16—continued

PUBLICATIONS — RESEARCH

POSITION PAPER

Rainforest Research in North Queensland, 52 pp.

RESEARCH REPORT

Report of Research Activities for 1980, 1981, Division of Technical Services, 87 pp.

RESEARCH NOTES

- No. 35 Vanclay, J. K. (1982). Optimum sampling of sample trees for volume equations. 15 pp.
- No. 36 Vanclay, J. K. (1982). Volume to any utilization standard for plantation conifers in Queensland. 8 pp.
- No. 37 Huth, J. R. (1983). *Pinus radiata* var. *binata* trial plantings in south east Queensland. 8 pp.
- No. 38 Nester, M. R. and Panow, S. B. (1983). Heat transfer along thermocouple wires inserted in timber. 8 pp.

TECHNICAL PAPERS

- No. 30 Porter, J. W. (1983). Terrestrial birds of the coastal lowlands of south east Queensland. 24 pp.
- No. 31 Wylie, F. R. (1982). Studies of larval populations of *Miltonia isodoxa* Prout (Lepidoptera: Geometridae) in hoop pine plantations. 10 pp.
- No. 32 Gieve, D. M. (1983). Performance of precut low durability timbers in south east Queensland house construction. 17 pp.
- No. 34 Vanclay, J. K. (1983). Stem form and volume of slash pine thinnings in south east Queensland. 17 pp.
- No. 35 Vanclay, J. K. and Shepherd, P. J. (1983). Compendium of volume equations for plantation species used by the Queensland Department of Forestry. 21 pp.

ADVISORY LEAFLETS

- No. 18 Peters, B. C. (1982). Drywood termites in Queensland. 6 pp.
- No. 19 Kynaston, W. T. (1983). Timber use in adventure playground equipment. 4 pp.

UNPUBLISHED REPORTS

- No. 7 Keys, M. G. and Nicholson, D. I. (1982). Underplanting of silviculturally treated rainforest in north Queensland. 23 pp.
- No. 8 Anderson, T. M. and Harvey, A. M. (1983). Managing cyclone-damaged *Pinus caribaea* stands. 18 pp.
- No. 9 Anderson, M. W. (1983). Growth of eucalypts planted on the coastal lowlands of southern Queensland. 13 pp.
- No. 10 Bolland, L. (1983). Sapstain of timber: a review of literature and comment on the Queensland situation. 9 pp.

TIMBER NOTES

- No. 1 Eccles, D. B. (1982). Tree roots in drains: but which tree is it. 2 pp.
- No. 2 Davis, R. I. (1982). Corrosion of metal in contact with wood. 2 pp.
- No. 3 Bolland, L. and Drew, I. K. (1982). Minimizing biological degrade in landscaping timbers. 3 pp.
- No. 4 Hughes, G. H. A. (1982). Preparing samples for tree and timber identification. 4 pp.
- No. 5 Felt, S. F. (1982). Timber hand samples. 4 pp.
- No. 6 Drew, I. K. (1983). Borers and the householder in Queensland. 4 pp.
- No. 8 Mc Donald, G. J. (1983). Lyctus susceptible species under the *Timber Users' Protection Act*. 2 pp.

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