

new south wales

public works department annual report 1978-79



APPRENTICE STONEMASON AT WORK

COVER KEY



1. WORKMEN IN KINCUMBER TUNNEL, GOSFORD SEWERAGE SCHEME
2. GUNNEDAH GOVERNMENT OFFICES
3. SUPREME COURT RESTORATION
4. PRINCE OF WALES HOSPITAL SCHOOL
5. PORT KEMBLA HARBOUR
6. BIDWILL EDUCATION CENTRE



1980

NEW SOUTH WALES

REPORT

OF THE

PUBLIC WORKS DEPARTMENT

FOR THE

Year ended 30 June, 1979

The Department was originally constituted by proclamation in the *Government Gazette* on 30th September, 1859, effective from 1st October, 1859, and is now a Department of the Crown under the Public Service Act, 1979.

D. WEST, GOVERNMENT PRINTER, NEW SOUTH WALES—1980

The Honourable L. J. Ferguson, M.P.,

Deputy Premier and Minister for Public Works and Ports.

Sir:

I have the honour to present the Annual Report of the Department of Public Works for the year ended 30th June, 1979.

W. K. PILZ,
Director of Public Works.

ANNUAL REPORT FOR THE YEAR 1978-9

Executive

Director of Public Works:

W. K. PILZ, O.B.E., B.E., M.I.E.Aust.

Chief Engineer:

W. J. HILTON, A.S.T.C.

Government Architect:

J. W. THOMSON, Dip.Arch.(Nottingham), A.R.A.I.A.

Assistant Director: (Management):

J. M. WARING, B.E.

Assistant Director:

W. W. WESTLAKE, LL.B.

Secretary:

B. D. LLOYD

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Functions of the Department

The Department of Public Works is responsible for the planning, construction and maintenance of State Government works. Conjointly, the Department exercises a role as consultant to the central government, to local government and, at times, to private enterprise within the Department's areas of responsibility in the fields of architecture and civil engineering. The Department is also responsible for the operation of certain trading undertakings. Generally speaking, the State Government works referred to are those required by the various departments and some of the statutory authorities of the Government. The Department's main clients may be identified in the following manner:

- Other departments and authorities for whom the Department undertakes construction works or acts in a consulting capacity;
- Private firms, such as coal companies or steel proprietors, for whom the Department undertakes development projects;
- Members of the public who make use of the Department's completed projects;
- Members of the public or groups and authorities which utilize the services of the Department's trading undertakings.

In addition, the Department has close relationships with consultants and contractors who undertake planning and construction on the Department's behalf, and under its supervision.

It also has close relationships with professional associations and trade groups.

As a design, construction and maintenance authority for the State Government, the Department provides—

- A technical consulting service to the New South Wales Government in respect of individual major works proposals, and in relation to the building and construction industry in general;
- A planning, co-ordination and control service for new works projects and for repair and maintenance services;
- A technical consulting service to clients to assist them in the evaluation of their own forward planning requirements;
- The technical capacity to undertake project planning, design and construction;

The foregoing includes—

- A complete service for planning and design, including feasibility studies, site investigations, preliminary planning and design, estimates of cost, development of design including the preparation of specifications and bills of quantities on which public tenders are invited;
- The invitation of tenders, the letting of contracts, and arranging the carrying out of some works by day labour;
- Site supervision, including the complete monitoring of the progress of work whether carried out by contract or by direct labour.

The Department carries out tests of materials for design and or quality control purposes at its Materials Testing and Chemical Services Laboratory and undertakes soils testing and associated works at its Geomechanics Laboratory. An investigation service associated with the flow of water and the movement of sediment is undertaken at the Manly Hydraulic Laboratory.



Beach improvements at Blacksmiths Beach.

In general, for major works, the Department's resources include expert multi-discipline teams of professional and technical staff comprising architects, engineers (including civil, structural, hydraulic, electrical, mechanical and acoustic engineers), quantity surveyors, draftsmen, land surveyors, technical officers, works supervisors, landscape and interior designers; together with competent administrative support.

Objectives

The Department encompasses a diverse group of operating entities, ranging from trading undertakings to the major construction activities performed by the civil engineering and architectural branches. This diversity of operations precludes having a single set of detailed objectives applicable to all its elements. However, the principal activities of the Department are associated with the investigation, design and construction of buildings and civil engineering projects, and the maintenance of public buildings.

The broad objectives of the Department may be defined as follows:

- The continuing evolution of the Department's organization to assure improved effectiveness and responsiveness to the needs of Government and the community;
- Improved relationship with clients;
- The greater utilization of departmental experience and resources in the overall co-ordination of capital works programmes;
- A more effective investigation, design and construction authority for assisting other state authorities whose primary function is not related to construction.

Introduction

The Federal Government's continuing concern over inflation and the national economy has resulted in conservative policies coupled with reduced expenditure as far as capital works in the public sector are concerned. This trend is reflected in the Department's cash flow which increased by \$44 million to \$686.3 million in 1978-9, from the figure of \$642 million in the preceding year. This increase was less than the annual inflation rate.

Nevertheless, the size of the cash flow, averaging an expenditure of more than \$13 million a week, is indicative of the magnitude of the Department's total operations.

Client departments, reacting to the more restrictive financial situation, are placing demands upon the Department for more frequent and more detailed project cost information, and more comprehensive pre-construction estimates.

Within the contemporary community climate, individual taxpayers and groups are questioning the value received in terms of taxation spent. While the Department recognizes the community as its ultimate client, it is rarely possible for individual residents to be closely involved in the planning stage of projects. Although all available avenues are explored to ascertain local feelings and views before detailed planning of projects commences, needs for the most part are established through the research processes of the clients with whom the Department is dealing. The Department, in the planning process, takes a long term view of community needs and considers aesthetic, social and environmental aspects, in addition to the immediate economic implications of the proposed projects.

The measure of the Department's effectiveness is the degree to which community requirements are anticipated and satisfied through the works programme undertaken. The measure of the Department's efficiency is the cost and time required to achieve those requirements. Within the Department's overall structure there is an emphasis upon productivity and the need to conform with government policy on staff ceilings.

The Department is constantly fostering close liaison with client departments in order to assure concurrence on needs, policies, timing and funding of projects.

Within the immediate foreseeable future, it seems certain that the public sector will continue to be under pressure to constrain expenditure, while the staff ceilings imposed under government policy will continue. The immediate trend is that allocations for major projects in progress will continue at projected levels, considerable finance will be available for special projects such as the National Herbarium and the Museum of Applied Arts and Sciences, but that limited funds will be available for new works in traditional fields such as schools and hospitals.

Bidwill Education Centre



Finance

Expenditure on works and services is summarised as follows:

Consolidated Revenue

Salaries, wages and allowances	\$ 34.5 million
Overheads, including motor vehicles, travelling and postage	\$ 5.0 million
State Telephone Services	\$ 10.5 million
Maintenance of public buildings	\$ 14.5 million
Fees to Consultants	\$ 7.2 million
Electricity and gas	\$ 15.8 million
Harbours and Rivers	\$ 2.3 million
Miscellaneous	\$ 23.5 million
Total	\$113.3 million

General Loan

Harbours and rivers works	\$ 6.4 million
Beach protection	\$ 1.0 million
Water supply and sewerage in country towns (excluding council contributions)	\$ 30.6 million
Capital grants and advance in respect of W.S. & S. projects in Water Board areas	\$ 0.9 million
New public buildings	\$ 38.9 million
Floating dock at Newcastle	\$ 4.3 million
Miscellaneous	\$ 0.4 million
Total	\$ 82.5 million

Special Deposits

Special deposits consist mainly of expenditure on behalf of the Department's clients \$266.6 million

Treasury

Expenditure for other departments through Treasury ledgers \$ 42.5 million

Trading Undertakings

State Dockyard, State Brickworks and Government Motor Garage \$ 31.3 million

Total \$536.2 million
Special deposits transfer payments.. .. \$150.1 million

Total Cash Flow \$686.3 million

Audit

The Accounts of the Department of Public Works including its Undertakings are subject to audit in terms of the Audit Act, 1902, and the State Brickworks Act, 1946.

Transactions on the Consolidated Revenue Fund, the General Loan Account and the Special Deposits Account appended to this Report as Appendix 1, include and complement information furnished in the Public Accounts prepared by the Treasurer for the financial year ended 30th June, 1979. The Public Accounts are examined by the Auditor-General and Certificates as to the correctness of the accounts included therein are furnished where required by the Audit Act, 1902.

Highlights of 1978-9

Coastal Protection Act

The Coastal Protection Act, 1979, has as its principal effect the strengthening of the role of the Department in giving advice to public authorities, mainly councils, in areas subject to coastal processes.

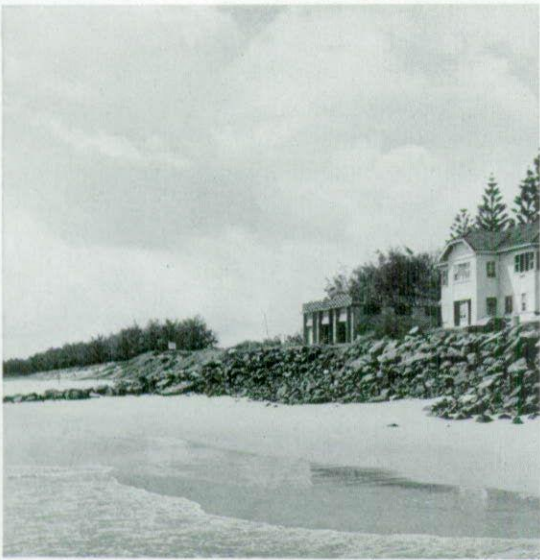
Experience has shown conclusively that our beaches and coastline cannot be taken for granted, and that careless development and misuse can endanger a fragile, natural system.

Nature is constantly launching attacks upon the beaches. Recent heavy seas at Wamberal caused houses to fall into the ocean, while at Collaroy and Narrabeen, high rise dwellings stand under grave threat because they were built too close to the shoreline.

There is not the slightest doubt that the State of New South Wales is faced with very real and urgent problems in the development of the coastal zone. Homes and industries within the zone are exposed to substantial risk from the forces of nature.

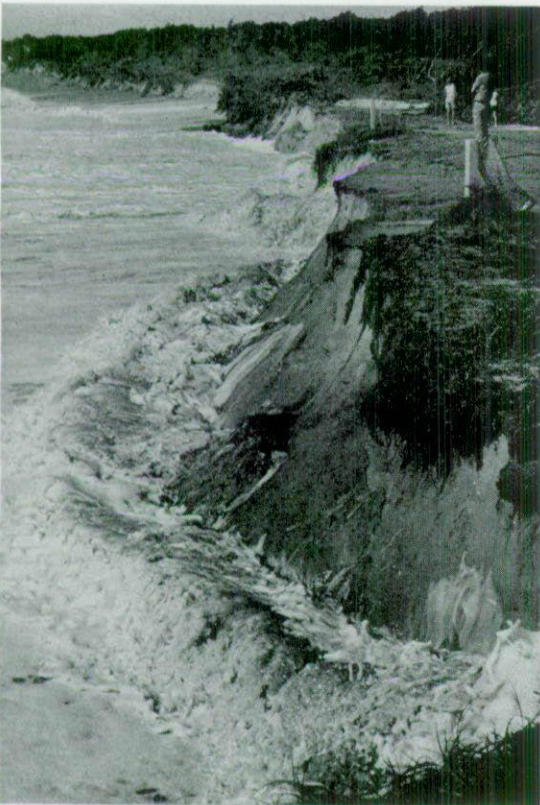
The new act has two main objectives. The first is to set up a Coastal Council to advise the Minister for Planning and Environment on a wide range of matters affecting the coastal region.

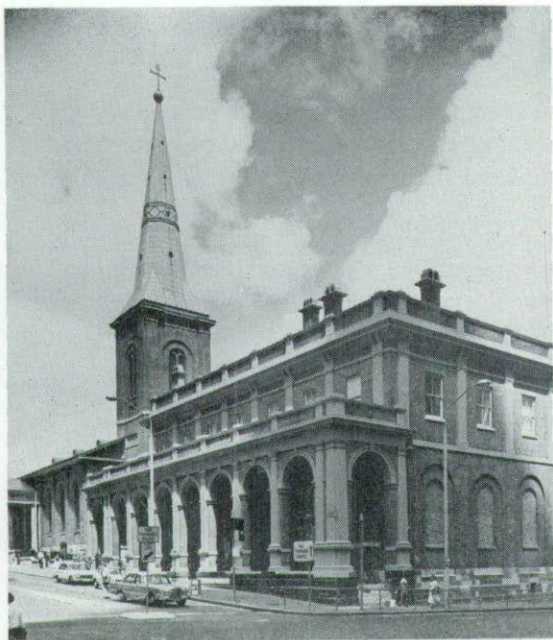
The second objective gives the Minister for Public Works certain powers and duties within a defined coastal zone. These powers cover, firstly, the authorization of works necessary for the protection, preservation, maintenance, restoration or improvement of the coastal zone. Secondly, they involve the oversight of any development, use or occupation of the coastal zone that may adversely affect, or be adversely affected by, the coast or river systems. In brief, the Minister for Public Works is given statutory authority in the area of coastal engineering.



Above: Erosion at Byron Bay.

Below: Erosion at Park Beach, Coffs Harbour.





Supreme Court, King Street facade.

Old Supreme Court Restored

Wood-panelled courtrooms in the old Supreme Court in King Street are in use again after the completion of an 18 month restoration project. The historic complex, originally designed 150 years ago by the convict architect, Francis Greenway, has been fully restored and renovated by the Department at a cost of \$2 million.

The seven courts within the building have been faithfully returned to their original condition in almost every respect. A team of specialist tradesmen including stonemasons, joiners, french polishers, decorative painters and carpenters worked on the restoration, some employing the traditional methods used by craftsmen in the early days of the colony.

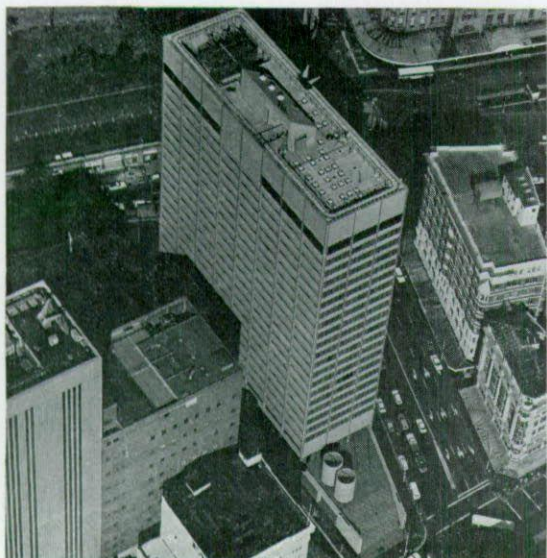
The restoration of the Supreme Court forms part of an overall renewal programme in the Queen's Square precinct, including the Hyde Park Barracks and the old Mint Building.



Walgett Court House after restoration.

Historic Buildings

With the increasing public interest and awareness in the restoration and preservation of public buildings, the Historic Buildings Group of the Government Architect's Branch has developed its store of information to the point where it has become the best repository of definitive historical knowledge and information in Australia. This is a comparatively new sphere of architectural application in this country, being concentrated principally in New South Wales which, by reason of its first settlement, is the location of the great bulk of Australian historic buildings.



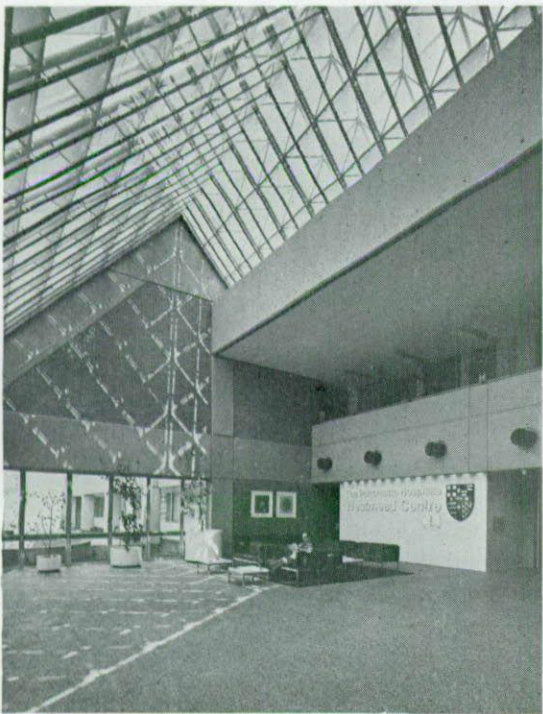
McKell Building, Rawson Place.

Government Office Blocks

Three major State office buildings completed during the year will further strengthen the State's administrative processes.

Construction of the \$23 million McKell Building in Rawson Place has proved a welcome development for the up-town area of the city of Sydney. This is the third major State Office Building constructed in the central city over the last decade or so.

In line with the policy of the State Government of bringing Government departments in country towns together under the one roof, major State Government office buildings were constructed at Broken Hill and Gunnedah.



Entrance foyer, Westmead Centre.

Westmead Centre

The success of the planning, design and construction of the Westmead Centre is attributable primarily to a combination of factors, the most important of which were:

- fast-tracking
- cost control
- time programming
- rapid decision making
- team work

Construction of the \$175 million hospital continues on target. While some phases are still under construction, the project is under partial occupation and is functioning as the most modern hospital complex in Australia.

Expenditure during the year totalled \$47.1 million, or an average of almost \$1 million a week.

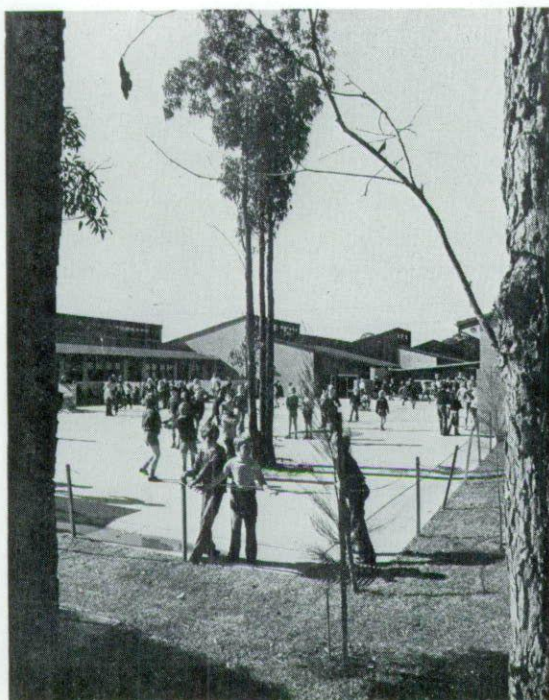


Magistrate's Court, Mark Foy's Building.

Court Complex

The whole of the fourth floor of the Mark Foy's Building on the corner of Elizabeth and Liverpool Streets, Sydney has been transformed into the largest single grouping of magistrates courts in the Southern Hemisphere. An imaginative architectural approach was adopted in a \$1.2 million project undertaken within a record 8 months construction time, with the aim of relieving overcrowding at the congested Phillip Street and Central Courts of Petty Sessions.

Seven courts were built side by side over the whole floor, with a large and attractive waiting area capable of accommodating up to 200 people.



Bonnet Bay Primary School.

Schools

The results of new briefs for both high schools and primary schools are now appearing in a variety of completed projects throughout the State.

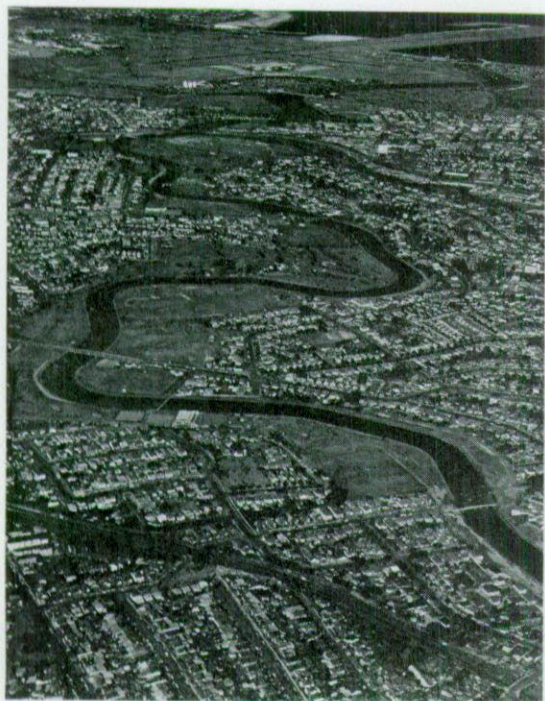
The new briefs, which re-define the requirements for schools, were jointly produced by the Department of Public Works and the Department of Education. Within fixed cost limits, architects engaged in the school building programme were able to produce a variety of solutions evolved out of the constraints relating to individual sites.

A number of primary schools were completed which convincingly illustrate the flexible approach to planning. The flexible spaces within the school allow a variety of groups of differing sizes to work together. Hampden Public School, the first completed to the new brief, has attracted considerable interest from educationists, architects and the media.

The second, Bonnet Bay Public School was officially opened by Her Royal Highness, Princess Anne during her visit to Australia earlier this year.

Kelso and Bathurst West Primary Schools are to further examples of new primary school construction.

New high schools are nearing completion at Colo, Sawtell and a number of other centres throughout the State.

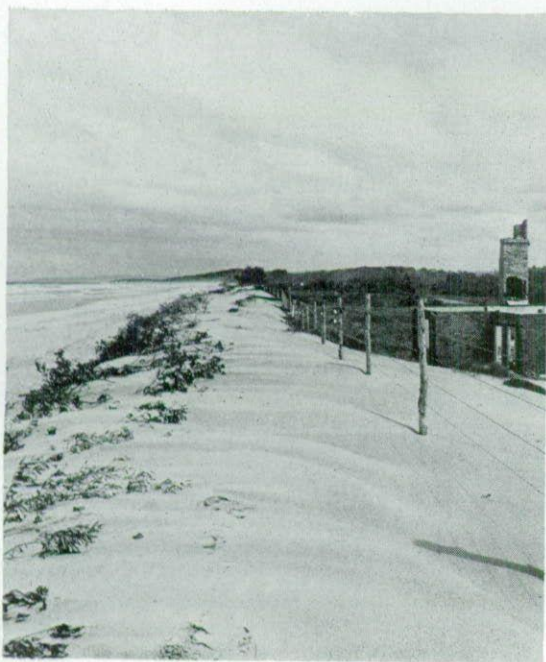


Cooks River.

Cooks River

In its capacity as engineering consultant to the State Government, the Department had a strong association in the preparation of a major report on the Cooks River which recommended a \$20 million programme aimed at restoring the river as a recreational amenity.

The drainage basin of the river contains a population of 380 000 people, of whom about 40 per cent live in flats or home units. This factor is a pointer to the need for park lands and recreational development. The first phase of the works recommended in the report is expected to be implemented in the financial year 1979-80.



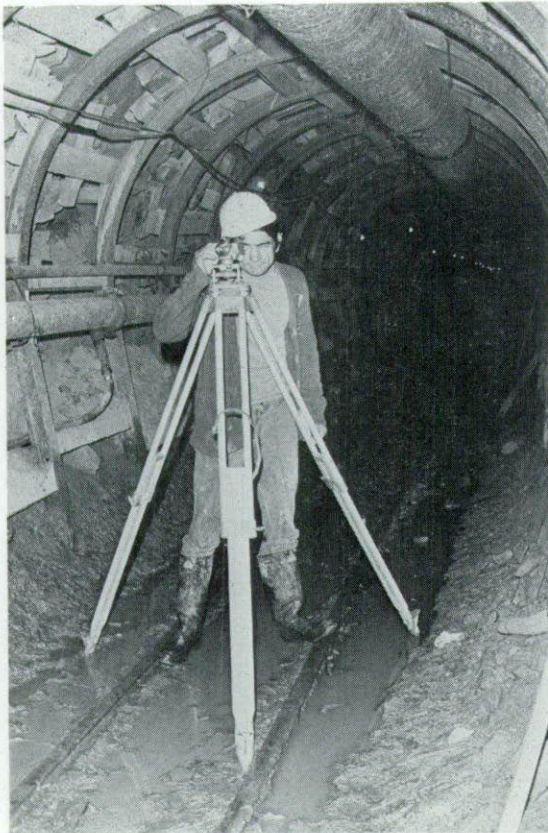
Erosion at New Brighton.

Byron Bay/Hastings Point Erosion

The last ten years have seen a dramatic increase in coastal erosion problems over the entire length of the New South Wales coastline where erosion is seriously threatening both private and public assets, as well as causing personal hardship and endangering the local economy in some areas.

The Byron Bay/Hastings Point region was selected for an intensive study of the coastal processes responsible for this erosion because it encompasses the most pressing of the problems being faced in the northern part of the State.

The study revealed that about \$14 million worth of public and private assets could be lost to the ocean over the next 50 years as the result of the forces of erosion. The study represents two years of intensive work by a team of coastal engineering experts who succeeded in identifying the causes of the erosion, and outlined a range of options for combating the problem.



Surveying in the Kincumber Tunnel, Gosford Sewerage.

Gosford Regional Sewerage

An intensive construction phase has now been reached in the \$100 million regional scheme to provide sewerage to Gosford, Terrigal, Wamberal, Avoca, Umina, Woy Woy, Ettalong and other centres in the area.

Tenders were invited for the key element of the scheme, the Kincumber Sewerage Treatment Plant. The plant will treat all domestic and industrial waste water collected within the Shire under a process recognized throughout the world as both efficient and effective in treating sewerage to environmentally acceptable standards. Initially, the plant will have a treatment capacity for up to 40 000 people, and will be brought on line within two years. Subsequently, the works will be expanded to provide treatment capacity for 80 000 residents with later expansion to cater for 100 000 people. Further progressive expansion is possible to cater for a regional population of 500 000.



Port Kembla.

Port Kembla Coal Loader

The end of the financial year 1978-9 saw the culmination of several years of investigation and pre-planning with documents completed in readiness for the invitation of the first of a series of contracts for the construction of the Port Kembla Coal Loader.

The market in coal exports is steadily expanding and there is now an urgent need to increase port capacity to allow New South Wales coal exporters to participate more effectively in the world coal trade.

The new facility is being designed and constructed to a three year programme at an estimated cost of \$105 million for the first stage which covers the loader itself, stockpiles a new berth and associated rail terminal works.

Administration

Management Services

With impending changes as a result of the introduction of the new Public Service Act, a programme of internal appraisal was initiated to further monitor efficiency and effectiveness. For the purpose of undertaking the necessary reviews, the Management Services Section was re-structured to incorporate two management analysts.

Staff ceilings imposed as a result of government policy have increased the importance of automatic data processing as a means of meeting increased demands for information and service. The installation of visual record computers has enhanced the overall efficiency of the Department's accounting operations, while the provision of a word processor has resulted in considerable saving of time in the preparation of manuals, reports and repetitive correspondence.

The implementation of the Public Service Act, 1979, will mean a significant involvement by the Department in recruitment, promotions, permanent appointments and other matters specified in the Act. To this end, a great deal of forward planning was completed so as to prepare the way for participation in areas that formerly had been within the province of the Public Service Board.

A Staffing, Planning and Co-ordination Unit was established to monitor and ensure that the Department's establishment is strictly adhered to, is accurate, and reflects the current position at any one point in time. Guidelines were outlined to branches of the Department for use when requests are made for increases in establishments. In this connection, a manpower profile is being established for each branch, division or undertaking within the Department so as to ensure a corporate approach to any requests and to enable an objective decision to be made where several requests are submitted by different sections of the Department.

Staff Development

A survey was carried out into training and development needs within the Department and the findings published in the form of a "Training and Development Needs Analysis Survey".

The results were significant and two important developments flowed from the survey. The first was the introduction of residential conferences for middle managers. It was evident that more development opportunities were required for officers in the middle management bracket. Previously, such conferences had been provided for senior management only, and the first for middle managers was conducted in February, 1979. The reports from participants reinforced the decision to hold them at this level, and further conferences have been planned for 1979-80.

The second development was a training and development programme designed in modular form. Greater emphasis has been placed on programmes for supervisors and managers, and the courses were offered so that officers could select areas appropriate to their own requirements and time availability.

A document entitled "Report of a Study into the Roles of Women in the Department" was published in March, 1979. It provided an over-view on the roles and requirements of women within the Department and outlined initiatives for the conduct of career development workshops for women. The first workshop was conducted in June, 1979, and others are planned for 1979-80.

Engineering Resources

The Engineering Resources Group continued to provide management services to the Engineering Board and the Engineering Division as a whole in the areas of staffing, organization development, corporate planning and automatic data processing.

Continuous review is being undertaken to ensure that the Division's organization, structure and management practices take into account changes in society and in the behaviour of the work force while, at the same time, meeting the changing demands of clients, the public and the Government.

With a view to directing increased attention to the areas of corporate planning and organization development, the positions of Strategic Planning Officer and Assistant Strategic Planning Officer were created. In advertising these positions, it was specified that they were not necessarily restricted to persons with engineering qualifications, but required tertiary qualifications such as Master of Business Administration, and experience in corporate planning and organization development.

Use of Consultants

The Department commissions consultants such as architects, engineers, quantity surveyors and other specialists when its design workload exceeds its own resources, or where there is a need for skills not readily available from the permanent staff.

Generally, payments for consultants' services are in accordance with the prescribed scales of the relevant private professional associations. However, the Department negotiates consultant contracts to take account of any specialist or technical input the Department might make which reduces the range of services that would ordinarily be provided to a non-technical client.

On most projects, consultants are selected from the large bodies of firms which have advised their availability. Selection is made taking into account such factors as location of their office, suitability for each individual project, while at the same time ensuring that a disproportionate amount of work is not placed with individual firms.

Selective Tendering

The Department's selective tendering system continued to operate successfully, with 184 tenders to a total value of \$103 million being called.

A total of 34 new contractors were registered, increasing the number of pre-qualified contractors to 365.

National Public Works Conference

The Department's representatives continued to attend the meetings of the National Public Works Conference, which provides a forum for the exchange of information between major constructing authorities from each of the States and from the Commonwealth.

The Conference continued to maintain contact with representatives of the construction and building industries, sub-contractors, suppliers and professional organizations.

Legislation

The following two measures were introduced into State Parliament by the Minister:

- Coastal Protection Act, 1979;
- Plumbers, Gasfitters and Drainers Act, 1979.

Personnel

The total number of officers and employees employed in terms of the Public Service Act decreased from 4 300 to 4 195 during the year.

As at 30th June, 1979, there were 2 859 permanent officers whose combined salaries amounted to \$40.6 million. There were 244 temporary employees whose salaries totalled \$3.7 million, while there were 661 wages personnel appointed under the Public Service Act whose combined salaries totalled \$6.4 million.

As at 30th June, 1979, the Department was training 431 apprentices in various trades.

Senior Appointments were—

Mr A. H. Brunker, Project Director, Parklea Prison.
Mr G. C. Corkill, Deputy Chief Engineer, Government Architect's Branch.
Mr L. Corn, Principal Engineer, Health Buildings.
Mr D. C. Edwards, Principal Engineer, Tertiary Education.
Mr P. D. Exton, Principal Engineer, Schools.
Mr L. W. Glendenning, Principal Architect, Public Buildings.
Mr D. Howe, Principal Engineer, Special Projects and Services.
Mr P. R. Mackenzie, Principal Engineer, Water Supply.
Mr D. I. Orr, Principal Architect, Government Architect's Branch.
Mr D. M. Rowe, Principal Engineer, Public Buildings.

The following officers retired from senior positions—

Mr B. Appleby, Principal Engineer, Tertiary Education.
Mr R. R. Ash, Principal Engineer, Water Supply.
Mr W. R. Bates, Deputy Chief Engineer, Government Architect's Branch.
Mr E. C. Glier, Senior Architect, Government Architect's Branch.
Mr T. W. Petersen, Senior Architect, Government Architect's Branch.
Mr I. F. Roberts, Principal Architect, Government Architect's Branch.

The death of the following officers is reported with regret—

Mr J. S. Bird, Senior Technical Officer.
Mr P. Day, Architect.
Mr L. D. Heagney, Senior Administrative Officer (Staff).
Mr N. W. Ray, Engineer.
Mr G. Rotenko, Engineer,
Mr J. L. Turney, Clerk.

Public Relations

A continuing public relations programme was undertaken as part of a deliberate, planned and sustained effort to establish and maintain mutual understanding between the Department, its clients and the general public. The two main objectives of the public relations functions were to inform the community of the Department's activities and to explain the ramifications of its projects and policies; and to maintain an effective public communication link between the Department, on the one hand, and the building industry and the architectural and engineering profession on the other.

An erosion study in the Byron Bay region identified a major long term erosion trend with the risk of \$14 million worth of public and private assets being lost to the ocean over the next 50 years as the result of the forces of erosion. The study pointed to a need for all levels of government, together with the local residents, to co-operate in the development of a management plan for the area. In order to encourage public comment on the findings of the study, a comprehensive booklet was produced summarizing the major implications of the report so that the people involved could be fully informed on its implications.

For some years now, a interdepartmental committee has been identifying and studying the problems which will need to be dealt with in the preparation of a comprehensive development plan for the Tuggerah Lakes and the nearby areas. Again, a comprehensive brochure was prepared outlining details of the progress of the study and inviting public comment on a series of plans prepared by the interdepartmental committee.

Industrial Relations

Industrial relations were maintained at a very satisfactory level with little industrial unrest throughout the whole spectrum of the Department's operations other than the State Brickworks. In August, 1978, brickmakers went on strike in support of the reinstatement of dismissed employees. In handing down a decision on the issue, Mr Justice Macken made a comment which attracted considerable publicity in saying—"Employees should realize that the 'age of Aquarius' has come to an end and that the industrial community is going through an economic period which poses grave risks to all concerned in industry". The State Brickworks was affected again in March, 1979 when, along with the Government Motor Garage and Leichhardt Workshops, metal tradesmen struck for eight days in support of wage claims.

Dams Safety Committee

Legislation to establish a statutory Dams Safety Committee was passed by the Legislative Assembly in March, 1978, but there was a delay in passage of the legislation through the Legislative Council. As an interim measure in June, 1978, the Minister for Public Works and Ports established a Technical Advisory Committee on the Safety of Dams, with the same composition and aims as the proposed statutory committee but without any legislative backing. This committee was operative until February, 1979 when, following the passage of the legislation, the Dams Safety Committee was appointed under the Dams Safety Act, 1978, and the interim committee was disbanded.

The Committee's objective is to ensure the safety of dams in New South Wales which it pursues through a three-fold role of routine surveillance of prescribed dams, power to act in any emergency situation, and an advisory role with respect to any matter which could affect the safety of a dam, such as sub-surface mining.

The Committee consists of eight part-time members. The Minister's nominee and Chairman of the Committee is Mr J. P. Messner, Chief Engineer of the Department of Public Works. Other Members of the Committee are—

Mr D. Anderson—Nominee of Hunter District Water Board.

Mr C. G. Coulter—Nominee of Electricity Commission of New South Wales.

Mr W. I. S. Moyes—Nominee of Metropolitan Water Sewerage and Drainage Board.

Mr M. J. Muir—Nominee of Department of Mineral Resources and Development.

Prof. D. H. Stapledon—South Australian Institute of Technology and Nominee of Institution of Engineers.

Mr I. L. Pinkerton—Consulting Engineer and Nominee of Institution of Engineers.

Mr H. S. Scott—Nominee of Water Resources Commission.

During the year, the Technical Advisory Committee and, subsequently, the Statutory Committee met regularly on a monthly basis and considered matters relating to procedures for the surveillance of prescribed dams, mining under and adjacent to stored waters, renewal of mining leases, and other mining matters. Preliminary discussions were also held with the State Emergency Services concerning the inter-relation of the Dams Safety Committee and State Emergency Services. Forty-eight applications for renewal of mining leases and one new lease were received.

The Committee has also inspected two south coast collieries, all the Sydney Water Board's south coast dams, Chichester Dam (Hunter District Water Board), several central coast ash disposal dams, one central coast colliery and Mangrove Creek Dam (Public Works Department).



Cooks River with Canterbury Racecourse in foreground.

Civil Engineering

Coastal Engineering Objectives

The prime objective of the Department's Coastal Engineering Branch is to ensure optimum development, use and conservation of the Coastal Zone.

Sub-objectives are to establish the Department as the State authority on coastal engineering matters, the State constructing authority for coastal engineering works, and to provide an information service on coastal behaviour and a consultative service on coastal engineering.

Planning

Steady progress is being made on the establishment of the Coastal Engineering Branch as an authoritative and expert service on coastal engineering matters.

Planned and co-ordinated steps are being taken to develop the specialized knowledge of the engineering staff. After having thoroughly explored the market for suitable staff in other States, the policy has been adopted of undertaking a greater degree of in-house training. The maximum use of modern technology, especially in the fields of data collection and interpretation, is also planned. The end result is expected to be a reduction in the number of poorly planned developments taking place within the coastal zone, and an identification of the best available means of overcoming coastal problems.

Coastal Protection

The Coastal Protection Act received Royal Assent and on 16th May, 1979, was proclaimed to commence operation as from 1st July, 1979. It has the principal effect of strengthening the role of the Department in giving advice to public authorities, mainly councils, in areas subject to coastal processes.

Experience has shown conclusively that our beaches and coastline cannot be taken for granted, and that careless development and misuse can endanger a fragile, natural system.

Nature is constantly launching attacks upon the beaches. Recent heavy seas at Wamberal caused houses to fall into the ocean, while at Collaroy and Narrabeen, high-rise dwellings stand under grave threat because they were built too close to the shoreline.

There is not the slightest doubt that the State of New South Wales is faced with very real and urgent problems in the development of the coastal zone. Homes and industries within the zone are exposed to substantial risk from the forces of nature.

The Coastal Protection Act does not look so much at the disasters of the past, but is aimed at ensuring that similar disasters are avoided in the future. This can only be done if future developments within the coastal zone are designed and located in such a way as to minimize the element of risk.

The new Act has two main objectives. The first is to set up a Coastal Council to advise the Minister for Planning and Environment on a wide range of matters affecting the coastal region. The second objective gives the Minister for Public Works certain powers and duties within a defined coastal zone. These powers cover, firstly, the authorization of works necessary for the protection, preservation, maintenance, restoration or improvement of the coastal zone. Secondly, they involve the oversight of any development, use or occupation of the coastal zone that may adversely affect, or be adversely affected by, the coast or river systems. In brief, the Minister for Public Works is given statutory authority in the area of coastal engineering.

Decision-making remains within the province of local government, but the Act ensures that the decision-makers obtain and take note of coastal engineering advice wherever and whenever this may be needed.

Three of the main benefits flowing to councils are—

- they may seek free advice on the coastal engineering aspects of proposed developments;
- in some controversial situations, councils may leave decision-making to specialists in coastal engineering, and any appeal on coastal engineering aspects can be defended by the Minister for Public Works;
- councils are relieved of responsibility for action in a case where a person has carried out development without complying with the Act, and if that development has an adverse effect upon the coastal system. In such cases, the Minister may step in and rectify the situation.

The Fishing/Tourist Port Programme

Engineering investigations or the physical construction of works were undertaken at most coastal ports with the objective of improving facilities either for the local fishing fleet based in the ports or for tourism.

More than \$3 million was spent on this class of work, the major projects being—

- the construction of major unloading jetties for the fishing fleets based at Batemans Bay and Greenwell Point;
- extension of the existing unloading wharf at Coffs Harbour;
- development of Batehaven boatharbour at Batemans Bay to provide moorings for fishing and recreational craft;
- reclamation at Eden as part of the first stage of a major redevelopment of the port with the aim of fostering the development of the fishing industry.
- construction of a sheltering breakwater, a four-lane boat-launching ramp and a parking area for 80 cars and trailers at Bellambi;
- construction of a sheltering breakwater, a three-lane boat-launching ramp and parking area for about 50 cars and trailers at Quarantine Bay, Eden.

Planning studies were undertaken for the development of the ports of Eden, Bermagui, Wollongong, Sydney Harbour and South West Rocks for the fishing industry.

Boat-Launching Ramp Programme

In December, 1978, the State Government approved the establishment of a boat-launching ramp construction programme for New South Wales waterways, to be administered by the Department in conjunction with local authorities. Under the programme, the State meets 75 per cent of the cost of development while the remaining 25 per cent is met by the local authority. Financial assistance extends not only to the boat ramp itself, but also covers access, parking and essential site improvements. The overall result is that new developments along these lines not only improve access to the water ways, but by taking into account visual, environmental and ecological considerations, enhance public access to waterside areas and generally improve the appearance of the foreshore.

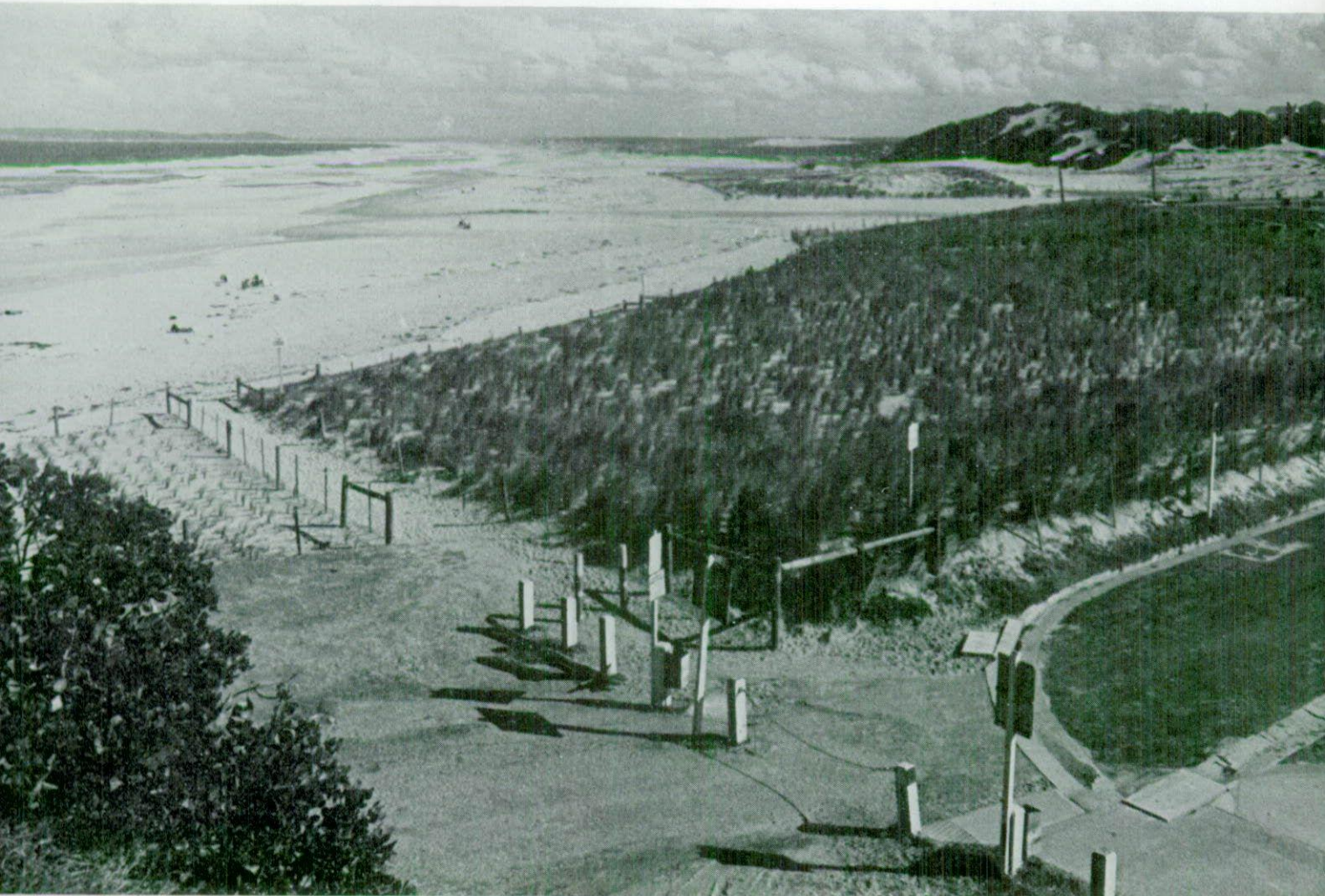
While the programme is State-wide in its scope, priority has been given in the initial stages to meeting the needs of the Sydney metropolitan area, where the need is demonstrably the greatest. At the end of June, 1979, offers of financial assistance to the extent of \$157,000 had been made to Ryde and Woollahra Municipal Councils in respect of boat-launching facilities at Kissing Point and Rose Bay.

Negotiations were in hand with a number of other councils and it is likely that a further five sites will be developed in the Sydney area during the financial year 1979-80. The first facilities in country areas are likely to be constructed during 1981.

Bellambi Breakwater and Boat Ramp

Following upon a detailed assessment of the recreational boating needs of the Wollongong region, the Department embarked upon the construction of a major boat-launching facility at Bellambi to provide access to the open ocean for trailered craft. The cost of the project is in the vicinity of \$400,000, and includes 150 metres of protective breakwater, a four-lane launching ramp and substantial foreshore reclamation. Completion is scheduled for the latter half of 1979.

Beach improvements—Redhead Beach.





Boat launching ramp, Quarantine Bay, Eden.

Quarantine Bay Breakwater and Boat Ramp

The projected redevelopment of Snug Cove at Eden for the fishing industry will result in the loss of existing boat-launching ramps. Consequently, \$300,000 was approved for a new project in Quarantine Bay, including a sheltering breakwater 120 metres long, a four-lane launching ramp, foreshore reclamation to provide parking for up to 50 cars and trailers and a low-level jetty alongside the ramp to facilitate access to launched craft.

Beach Improvement Programme

The more important projects undertaken under a continuing programme of improvements to beaches were—

- Soldiers Beach—involving dune stabilization, stormwater drainage and car park construction, at a cost of \$255,000;
- Harbord Beach—involving dune re-establishment, car parking and beautification, at a cost of \$339,000;
- Warilla Beach—dune re-establishment at a cost of \$133,000;
- Wollongong Beach—dune stabilization at a cost of \$60,000.

The first works outside the Sydney–Newcastle–Wollongong region were initiated during the course of the year. The most significant of these was at Evans Head which utilized sand dredged from the Evans River to rebuild a frontal dune. The estimated cost is \$60,000.

Byron Bay-Hastings Point Erosion

The Byron Bay-Hastings Point region was selected for an intensive study of the coastal processes responsible for erosion, because this particular area of the State encompasses one of the most pressing erosion problems.

The study revealed that about \$40 million worth of public and private assets could be lost to the ocean over the next 50 years as the result of the forces of erosion. The study represented two years of intensive work by a multi-disciplinary team which succeeded in identifying the causes of the erosion, and outlined a range of options for combatting the problem.

The serious long term erosion trend in the area is shown to be the result of a natural sediment imbalance, evidenced by more sand leaving than entering the region. Consequently, the coastline is receding at an average rate of 1.5 metres a year at Byron Bay and 2 metres a year at New Brighton. The erosion has been progressing for several thousand years, and can be expected to continue.

Unless steps are taken to combat the problem, Walker's Meatworks at Byron Bay, the major industry in the area, could be forced to close, while the main north coast railway line could be cut.

New Brighton, a quiet holiday resort and retirement village, is threatened by erosion with the front row of houses perched on the erosion line.

Extensive studies were carried out and scientific techniques developed for the analysis of the coastal processes causing the overall problem. Information was gathered on factors affecting the erosion rate, such as waves, tides, storm surge, winds, currents, cyclones, severe storms and sand movements.

Offshore investigations included the metering of currents, bottom sediment, sampling, diving inspections, the installation of wave poles and wave buoys, seismic data collection and surveying.

A mathematical model was also developed, capable of predicting future changes of the coastline from natural forces, or in response to protective work such as seawalls, groynes and sand nourishment programmes.

A series of management options were outlined in the report and presented to the people of the region for public examination prior to the adoption of a firm management plan for the area.

Offshore Sydney Coastal Processes

Erosion investigations have produced evidence that, in the Sydney area, there is a very real possibility that many beaches will be lost in the future unless they are wisely managed. With a view to providing timely advice, and to guide rational planning of the Sydney coastal region, a study was commenced to identify—

- the present-day coastal processes in the Sydney region and the sensitivity of the beach systems to these processes;
- possible offshore sources of suitable nourishment sand. Offshore areas in which commercial extraction of sand and gravel will not prejudice beach stability.

When the study is completed, it will form a factual basis for decision-making and provide a data based framework for reviewing all Sydney's ocean beach problems.

Nelson Bay Erosion Study

A study was initiated to investigate the causes of beach erosion at Nelson Bay Beach, and to formulate management strategies to combat the erosion problem.

Tathra Beach Erosion Study

A preliminary study of beach processes in the Tathra region was undertaken so as to assist in providing authoritative advice on measures to protect the Tathra Surf Life Saving Club and the beachfront caravan park from beach erosion. Preliminary findings indicated an unusual phenomenon in that beach erosion is continuing, notwithstanding a supply of sand to the beach system from the Bega River.

Tweed River Dynamics Study

Future large scale sand extraction within the lower Tweed River estuary will only be considered within certain guidelines outlined in a report prepared by the Department on the dynamics of the river. A three year study into the impact of large scale dredging of the river disclosed a need for a changed pattern in any future dredging.

Almost 8 000 cubic metres of sand were dredged from the bed of the lower Tweed by the Gold Coast City Council for the nourishment of Kirra Beach, which was extensively damaged by cyclones during 1974.

The study was the first of its kind into the impact of large scale dredging on a river estuary system, and has far-reaching implications for the future dredging of other river systems.

The study involved the monitoring of sediment and water movement within the estuary using water level recorders, underwater photographs, hydrographic surveys and periodic sampling of the river bed. The study found that dredging had produced an observable alteration of the rivers' tidal flow pattern, and that the estuary was extremely sensitive to dredging in the immediate vicinity of the entrance.

The report shows that dredging in certain cases can be of use in removing shoals or alleviating bar conditions remote from the actual dredging site. Conversely, improperly sited large scale dredging can cause problems well outside its apparent sphere of influence. Since the coastal rivers have a long term natural tendency to choke with sand, the newly established knowledge of remote dredging impact becomes a valuable tool for the management of estuaries.

Lake Illawarra Entrance Study

In a coastal management study of the Lake Illawarra entrance, it was found that shoaling at the seaward end of the entrance channel greatly restricts tidal flow which has closed the lake 20 times over the last 40 years. It was further established that erosion of Warilla Beach is largely due to storm waves driving sand northward past the lake entrance through the gap between the beaches and Windang Island.

The report concluded that the provision of twin training walls at the entrance would increase the tidal flow to 2 million cubic metres per tide. This would be two to three times more than the existing volume, and would have the effect of reducing flood levels. The southern of the two training walls would prevent further substantial sand loss from Warilla Beach. The training walls would provide an improved permanent entrance for the lake at an estimated cost of \$4.2 million.

Chipping Norton Lake Scheme

Work continued on the establishment of the huge recreational lake which is designed to overcome the major environmental problem caused by more than 25 years of sand mining operations and soil extraction in the Chipping Norton area of the Georges River flood plain.

A 3 hectare wildlife island is to be established within the lake, having a winding path system to allow school students and nature study groups to tour the island. Two small bay areas will be developed as wetlands for the habitat of ducks and other waterbirds. A development plan covering the northern banks of the lake at Lansvale and the wildlife islands was released as the first of a series of detailed planning reports of the lake and the foreshore areas.

Manly Hydraulics Laboratory

The following major model investigations were undertaken:

- Norah/Wybung outfall investigation for the Gosford/Wyong sewerage project;
- Port Kembla revetment model;
- Chipping Norton Lake model.

The regional wave height measurement programme continued satisfactorily with sites at Cape Byron, Coffs Harbour, Port Kembla and Eden.

A programme of base data collection, predominantly in coastal estuaries, included activity at 26 different coastal waterways.

Finance

The main areas of coastal engineering expenditure were:

	\$
Coffs Harbour Boatharbour	219,968
Eden Harbour Improvements	160,000
Ulladulla Harbour Improvement Works	115,000
Beach Protection and Improvement Works	1,000,000
Chipping Norton Lake Scheme	500,000
Greenwell Point Wharf	264,093
Tweed Heads Breakwater Restoration	200,574
Wollongong Harbour Improvements to Slipway	129,770
Batemans Bay Boatharbour Extension	187,000
Quarantine Bay Tourist Boatharbour	270,000
Batemans Bay Fishermen's Wharf	171,200
Wollongong Harbour Improvements	40,117
Bellambi Tourist Craft Facilities	300,699
Wagonga River Entrance Improvements	46,000
Port Macquarie Entrance Improvements	112,500
Evans Head Boatharbour Improvements	63,954
Coffs Harbour Breakwater Restoration	95,162
Kooragang Island Development	390,500
Rivers and Foreshores Improvements	1,872,536
Lake Macquarie Entrance Breakwater and Training Wall Restoration	156,143
New South Wales Waterways Launching Ramp Programme	80,500

Port Kembla Coal Loader

Detailed planning continued on the Port Kembla coal loader which is intended to increase the export of coal through the port from 6.5 million tonnes annually to a throughput of between 12 and 15 million tonnes. Provision has been made for future expansion to a capacity of 20 million tonnes per annum in the second stage.

The New South Wales Government will finance, construct and operate the port complex as a common user facility for firms exporting coal from the southern, south-western and western coalfields of New South Wales. The complex is to be constructed on an area of land separating the ocean and the Port Kembla Inner Harbour. The new berth to be constructed will be capable of servicing

vessels in the 140 000 to 150 000 tonne range, but in the initial stage dredging will be limited to the depth necessary to allow full loading of ships in the range between 100 000 and 110 000 tonnes. This will involve the extension of existing channels within the inner harbour by the removal of about 600 000 cubic metres of material.

Rail deliveries to the new complex will be based on a "unit train" system with provision for bottom dumping. It is intended that trains will enter the port area from along the existing line which branches from the main line at Coniston. The trains will proceed around a loop, dumping coal at a receival terminal. The loop system has been designed to permit the rapid turnaround of trains, and to assist in the highest practicable degree of wagon use, thus minimizing capital investment in wagons.

The road systems within the port will be constructed to allow trucks to enter the plant, discharge coal, pass through a washing facility and leave the port area without intruding into the main area of the coal loader and without affecting rail deliveries to the port. Coal in the receival areas will be treated with dust suppressants and then conveyed along belt conveyors either to stockpiles or direct to ships. All elevated conveyors will be covered.

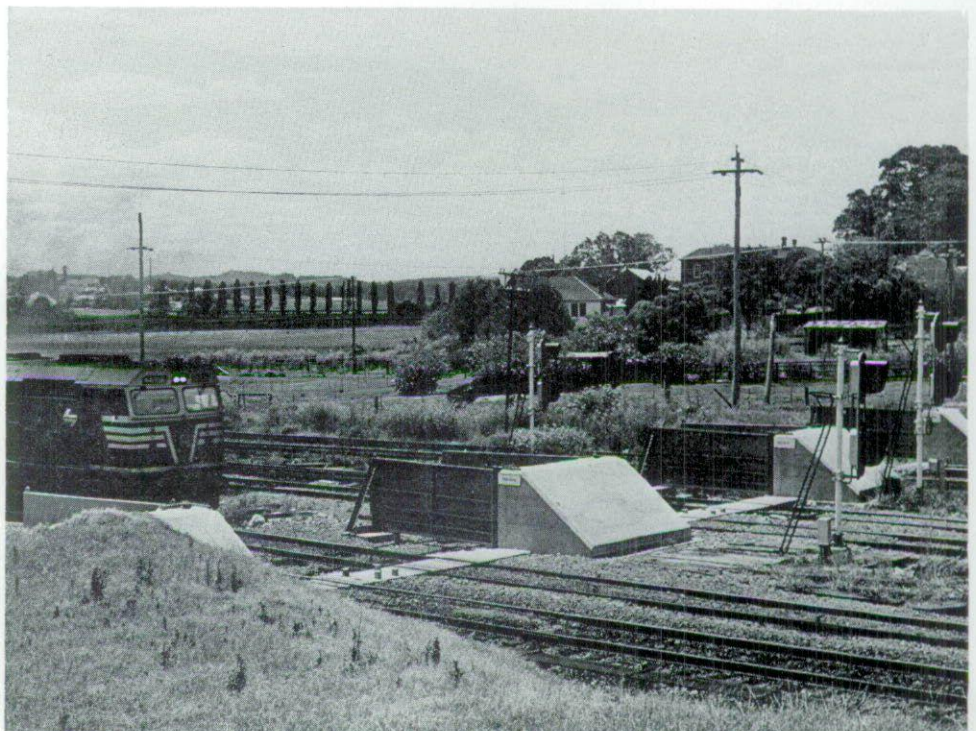
Two parallel stockpiles will be established with an initial capacity of 850 000 tonnes, stored in 16 individual stockpiles. Coal will be retrieved from the stockpiles by two centrally located rail-mounted bucket wheel reclaimers, and conveyed along belts to the new wharf.

A 36 month construction period will be required, the first phase involving the reclamation of 5 hectares of land on the ocean side of the peninsula.

Documentation continued on the different aspects of the project in the expectation of a series of contracts being let during the financial year 1979-80.

The overall concept of the project was explained at a public conference in Wollongong at the end of 1978.

Flood mitigation works protecting railway line at Maitland.



General Projects Objectives

To serve the State more effectively as a service engineering organization in the field of:

- flood mitigation;
- design;
- programming;
- materials testing and chemical services.

Flood Mitigation

Within the period of two decades since flood mitigation works were first commenced in New South Wales, the sum of \$38 million has been spent within the tidal areas of the coastal rivers, significantly altering the previous pattern of uncontrolled flooding and the disaster that so often followed in its wake.

Generally speaking, the rural lands have now been given protection against minor floods of up to 5 year frequency, while the cities and towns have various protection, some against floods of up to 1 in 100 year frequency.

Objectives in the early days of flood mitigation were in simple terms—

- prevention of the loss of life and property;
- provision of adequate drainage to agricultural areas;
- conservation of agricultural land from erosion.

In the intervening years, objectives have not changed, but it needs to be remembered that, when these programmes commenced, there were no computers, there was only a small store of environmental knowledge, sophisticated methods of economic analysis were undeveloped, the rural economy was soundly based, and there was not a great deal of data on rivers and floods.

While objectives have not changed, there has been a considerable change in emphasis, and policies must now be geared to evolving circumstances, particularly in the area of flood plain management.

The Government has stated a policy for flood prone areas which broadly indicates that flood prone lands should not be developed unless there is no alternative.

The policy encourages developers to firstly ascertain the risk involved, and secondly to stay out of the fast flowing areas of the big floods. The policy is mandatory for government assisted works, except where flood-free sites are neither available nor appropriate, and it is strong advice to private developers.

Consistent with the State Government's policy, the national approach to water resource management, which has been adopted by all State Governments and by the Federal Government, outlines various objectives in flood mitigation. These include the zoning of flood prone land with a view to its orderly management, as well as the monitoring of floods and assessing and minimizing their adverse effect.

The zoning of flood prone land means that it must first be defined and, as a first step, both the Department of Public Works and the Water Resources Commission have begun the mapping and zoning of the flood plains with a view to providing soundly based assessments of the flood liability of the plains. The zonings are intended to form the basis for future flood mitigation schemes designed to incorporate the combined objectives of local interests, of planners and of natural and resource authorities.

In brief, the future of flood mitigation may be found in—

- better data;
- improved flood warnings;
- advertising the flood hazard;
- good development policies;
- better assessment of flood mitigation options.

A jointly funded Commonwealth/State study has commenced to identify future needs in the area of flood mitigation. In order that governments might be aware of the present potential for flood mitigation in the major river valleys, the Commonwealth is seeking an independent assessment of problems, needs and proposed measures, as well as experiences and an indication of the extent of mitigation measures applied to date. Meaningful reports by the consultants engaged in the task are not expected to be available for consideration by the various governments until early 1980.

Specific activities in the various river valleys were as follows:

Tweed River

Because the Tweed area is undergoing a fairly high rate of expansion, it was considered necessary to investigate the pattern and effects of flooding to avoid development in the flood prone areas.

The sum of \$88,000 was spent on computer modelling of flooding for the Chinderah-Kingscliff, South Murwillumbah, Cudgen-Cudgera and Crabbes Creek-Mooball areas.

Richmond River

The sum of \$370,000 was spent on the Newrybar drainage scheme which has the objective of improving drainage and reducing flood damage in a sugar cane growing area. The total estimated cost of the scheme is \$600,000.

Investigations and designs were completed for a \$200,000 project involving road-raising as part of the levee system protecting the Rileys Hill area.

During the year, the first step was taken towards the objective of gradually eliminating the settlement of the low-lying areas of Lismore which are frequently subject to flood hazard. Several properties were purchased at a cost of \$80,000 in line with the principle of the scheme which involves the purchasing of properties over a span of years as they come onto the market.

The total expenditure in the valley for the year was \$578,500.

Clarence River

The sum of \$648,000 was spent on the following range of projects:

- Swan Creek back-up gates—the gates will be used to raise water level for pasture growth during the non-flood period, with the gates remaining open during flooding;
- Eastern Broadwater level—the aim of this \$314,000 scheme is to mitigate against the flooding problem in an area where 40 per cent of the land is used for sugar cane farming and the rest is utilized as pasture land;
- Sportsmans Creek level—environmental impact studies were completed on a \$300,000 scheme which includes a network of levels at the lower end of Sportsmans Creek, a tributary of the Clarence River.

Macleay River

Construction expenditure was \$126,000 which included replacement of the "fabridam" structure on the Kinchela Floodway and the extension of existing drainage in agricultural areas to remove floodwaters at a sufficient rate to avoid damage to crops and pastures.

Hastings River

Construction expenditure amounted to \$94,000, principally involving the King Creek area and the drainage of floodwaters from the residential area on the northern bank of the Hastings River opposite Settlement Point.

Hunter Valley

Of the total expenditure of \$675,000 during 1978-9, the sum of \$179,000 was spent on general maintenance of completed works. A further \$92,500 of the construction programme was spent on repairing damage caused by the flood of March 1978.

Expenditure on the Hunter Valley scheme since its inception now exceeds \$11.5 million. A continuing programme is being undertaken to control the growth of willow trees in the Paterson River channel in order to prevent the willows from growing too large and taking considerable volumes of the bank into the river when they fall.

Bank protection works at Porters Hollow were completed to give protection to the river bank in an area where severe erosion had taken place following previous flooding. With a view to improving the efficiency and security of the Oakhampton Floodway, the sum of \$15,000 was spent on raising and improving the grading of Cummings Dam. This levee is the most upstream of the levees protecting Maitland and failure of the levee in a 1 in 100 year flood would cause considerable damage to property and flood mitigation works in the vicinity of Maitland. The breaching of the levee was responsible for much of the flood damage in the Maitland area during the 1955 flood.

Hawkesbury River

Work commenced on extending existing bank protection works along Argyle Reach, upstream of Windsor, to complement the Clarendon Levee and to exclude floods from the Richmond-Cornwallis Flats. The estimate cost is \$333,000.

Moruya River

Very little construction work was carried out during the year.

Shoalhaven River

No major works were carried out.

Design

The activities of the Design Section in the field of General Projects includes investigation, research and design activities in relation to swimming pools, stormwater drainage, sewerage schemes, water supply schemes, reservoirs, pumping stations, water treatment plant and flood mitigation structures.

The major design activities were—

- investigation of Bungawalbyn diversion channel for the Richmond River Valley County Council;
- review of the design of the Hawkes Nest Swimming Pool for the Great Lakes Shire Council;
- review of the designs of swimming pools at Ulladulla and Tweed Heads;
- investigation of periodic flooding of Centennial Park;
- research of data for flood plain mapping of Taree.

Grants Administration

Grants totalling \$867,081 were allocated to government and local government authorities from the following sources:

	\$
Treasury Grant—Special Flood Damage	740,644
Revenue Vote to Assist Councils	110,000
Revenue Vote—Flood and Storm Damage	12,437
Revenue Vote—Miscellaneous Works and Services	4,000
Total	<u>\$867,081</u>

In addition, payments totalling \$70,000 were made to various councils for the construction of swimming pools under the Department of Sport and Recreation's Swimming Pool Subsidy Scheme.

A total of 58 grants was made to councils for the construction, repair and renewal of works.

Six grants were made to councils in respect of storm and flood damage and two grants were made for the maintenance of landing fields in the Western Division.

A total of 68 grants was made for the provision of relief measures associated with natural disasters.

Materials Testing and Chemical Services

The work undertaken included regular quality control testing of concrete, bricks, cement pipes, steel, etc., as well as special investigations involving the chemical testing of soils, town waters, sewerage effluents and trade wastes.

The operations of the Materials Testing and Chemical Services Laboratory at Glebe for the year ended 31st December, 1978, resulted in a net profit of \$112,000.

Reticulation works, Gosford Sewerage.



Sewerage Objective

To serve the State more effectively as a service engineering organization in the field of sewerage and to ensure the technical quality and adequacy of sewerage works throughout country districts by developing expert knowledge in sewerage technology. From this will flow increased client satisfaction.

Gosford

A \$100 million regional scheme is under construction with the aim of providing sewerage to Gosford, Terrigal, Wamberal, Avoca, Umina, Woy Woy, Ettalong and other centres in the area.

It is probably the most important single public work ever undertaken on the Central Coast, and has been designed by the Department on behalf of the Gosford Shire Council. The project is being financed jointly by the State Government and the Council.

Primary aims of the design are to achieve effluent quality that conforms to the highest world standards, while at the same time incorporating the necessary flexibility and capacity to keep pace with expected population increases. The Department's own engineering resources were supplemented by specialist consultants from Australian and overseas firms to ensure that the widest possible experience was utilized.

During the investigation and design phases there has been concern expressed within the local community at the effect of the scheme upon oceans and beaches. Extensive investigations by independent oceanographers and marine biologists concluded that the discharge of effluent into the ocean near First Point will have a negligible effect upon either the ocean ecology or local beaches.

Prior to the close of the year, tenders had been invited for the construction of the key element of the scheme, the sewage treatment plant at Kincumber. The plant will treat all domestic and industrial waste water collected within the Shire under a process recognized throughout the world as both efficient and effective in treating sewage to environmentally acceptable standards.

Initially the plant will have a capacity for up to 40 000 people, and will be brought on line within two years. Subsequently, the works will be expanded to provide treatment capacity for 80 000 residents, with later expansion to cater for 100 000 people. Further progressive expansion is possible to cater for a regional population of 500 000.

After undergoing treatment at Kincumber, the effluent will travel to the ocean outfall through a 4.5 km tunnel driven through a rugged mountain terrain.

Sewage from the Woy Woy Peninsula will be treated under a similar process in a new treatment works to be constructed at Woy Woy, before being pumped through an 11 km link joining up with the outfall tunnel at Kincumber.

During 1978-9, the sum of \$12.2 million was spent on all phases of the scheme.

The total expenditure at the end of June, 1979, including Commonwealth funds, was \$31.08 million. The total State subsidy paid to date amounts to \$14.4 million.

Reticulation sewers in the Wyoming and Springfield areas were completed, while sewers in the Terrigal, Wamberal and some parts of the Woy Woy Peninsula were nearing completion. In all, about 132 km of sewers have been laid.

Excavation work on the 4.5 km outfall tunnel was virtually completed in readiness for concrete lining, while a depth of 2.1 km had been reached on the total excavation of 3.3 km on the Kincumber tunnel.



Pressing ahead on the Kincumber tunnel.

Wyang

Of the existing 26 000 dwellings within Wyong Shire, about 12 000 now have a sewerage service. It is estimated that, to overcome the backlog, works valued at in excess of \$30 million will be required. Survey, investigation and design work was undertaken on a scheme of reticulation sewers and headworks involved in a regional sewerage project for Wyong.

New Schemes

Preliminary investigations were carried out on the following seven schemes following requests from Councils that the towns concerned be placed on the priority list of sewerage schemes awaiting Government subsidy—

- Collarenebri
- Crookwell
- East Wentworth
- Euston
- Kororo Bay/Banana Bowl
- Leura/Wentworth Falls
- North Star

Preconstruction activities were carried out into proposed sewerage schemes in the following 52 towns:

Aberdeen	Moree
Ardlethan	Mylestom
Boggabilla	North Springwood
Bogangar	Old Bar
Bourke	Quirindi
Bowral	Robertson
Broulee, Mossy Point/Sunpatch	Royal Park/St George/Erowal
Bundanoon	Scone
Calala	Shoalhaven Heads
Captains Flat	Smithtown/Gladstone
Cootamundra	Singleton
Culburra/Orient Point	South Littleton
Dalmeny	South West Rocks
Darlington Point	Stroud
Forster	Sussex Inlet
Frederickton	Taree
Ganmain	Tenterfield
Glen Innes	The Rock
Gloucester	Tinonee
Greenwell Point	Tuross Head
Hilltop	Urbenville
Iluka	Walla Walla
Inverell	Wellington
Jindabyne	Wingham
Lake Cathie/Bonny Hills	Wyalong
Lake Tabourie	Yenda

Construction

The following 12 sewerage schemes were under construction during the year, with a total expenditure of \$11 million:

Banora Point
 Bulladelah
 Batemans Bay/Malua Bay
 Coffs Harbour/Sawtell
 Condobolin
 Hay
 Molong
 Murrundi
 Nimmitabel
 Narooma
 Tottenham
 Trangie

Some of the more important sewerage projects under construction were—

Batemans Bay/Malua Bay

The Eurobadalla Shire Council is the constructing agent for this \$7.5 million scheme. The majority of the reticulation and pumping stations were commissioned, along with the first stage of the treatment works. Construction proceeded on the second stage of the treatment process comprising a 7 500 person capacity continuous aeration system.

Narooma

This \$4 million scheme also has the Eurobadalla Shire Council as the construction agent. The extended aeration treatment works comprises two Pasveer type channels, each of 2 000 person capacity, an extensive effluent pondage. The effluent ocean outfall and a pipeline crossing of the Wagonga inlet were completed. The anticipated date of commissioning for the whole scheme is late 1979.

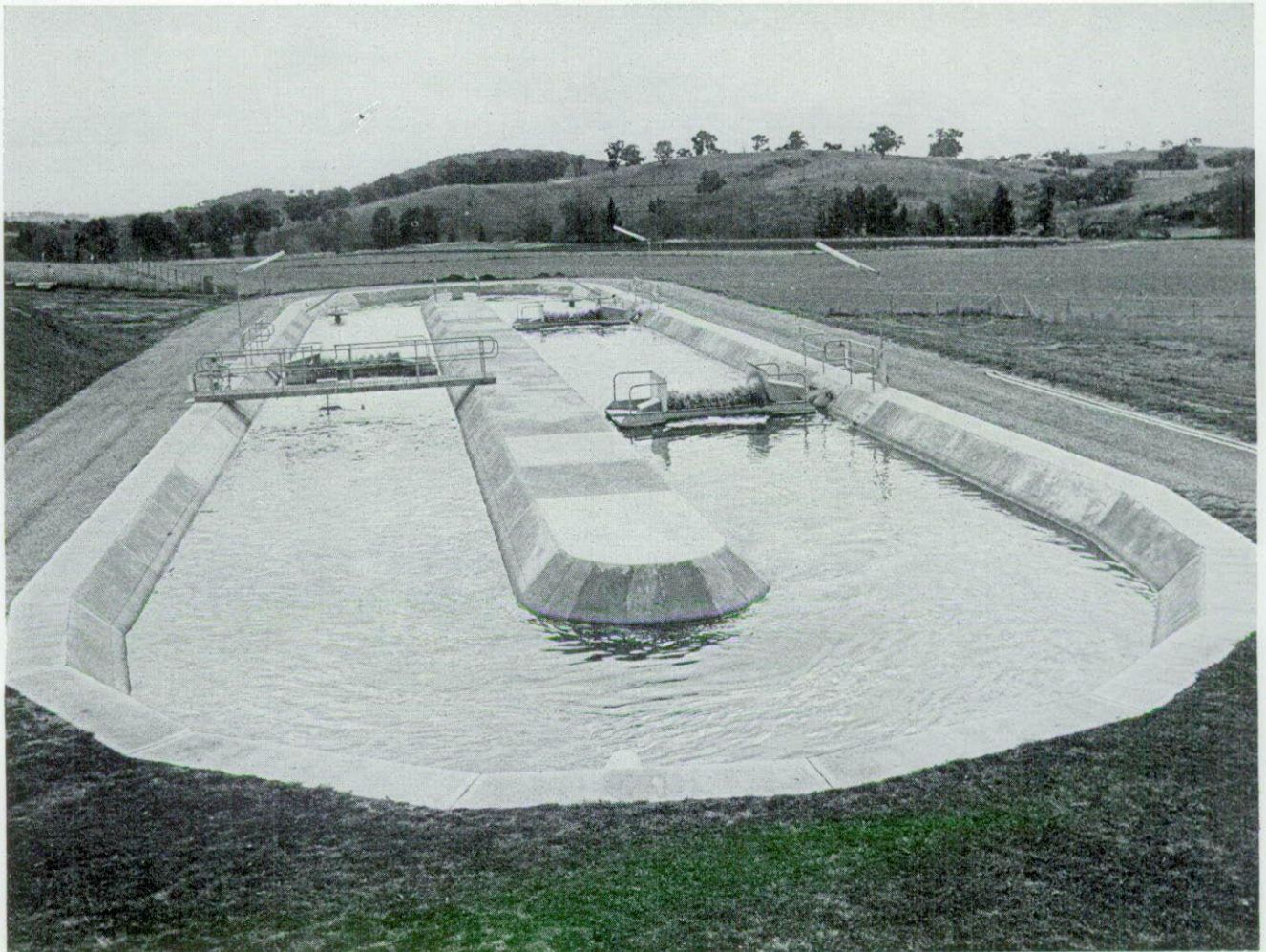
Coffs Harbour-Sawtell

A \$4.3 million sewerage augmentation scheme is being constructed by the Department for the Coffs Harbour Shire Council. The Sawtell treatment works was completed in 1977, and the two major pumping stations in Coffs Harbour were commissioned late in 1978.

Banora Point

A \$4.3 million sewerage scheme for Banora Point is being constructed by the Department for the Tweed Shire Council. The scheme comprises about 32 000 metres of reticulation and rising mains, six pumping stations and an extended aeration treatment works for 6 000 persons.

Pasveer channel, Molong Sewerage.



Specialists

One of the responsibilities of the Sewerage Branch is to maintain and improve the Department's standards for both sewage and water treatment. Training courses are regularly conducted for treatment plant operators at various centres throughout the State. In addition to the training courses, inspecting staff carry out periodical inspections of plant to ensure that proper operating standards are maintained. It has been observed that the operation of treatment works has considerably improved, and this may be attributed in a large measure to the decentralization of inspecting staff.

The Pasveer system for sewage treatment, as improved and modified by the Department, continues to attract interest from Government bodies and private organizations both within and outside the State. This interest has been actively encouraged. A further development in the Bathurst Box type extended aeration system is also attracting interest from various authorities.

Treatment

Various aspects of water treatment plant design were undertaken for the towns of Inverell, Berrima, Wyong, Gloucester, Jerilderie, Tamworth, Glen Innes and the Tweed District.

Investigations for water treatment plants were commenced or completed for the towns of Casino, Guyra, Nowra, Adelong, Batlow, Balranald, Bombala and Walcha.

Upgrading investigations were undertaken for water treatment plants at Bowral, Bathurst, Cobar, Cowra, Crescent Head, Gilgandra, Blayney, Nyngan, Leeton, Molong, Orange, Tumut, Eurolla, Werris Creek and the South West Tablelands Water Supply Scheme.

Investigations for chlorination were undertaken for the towns of Bowral, Adaminaby, Aberdeen, Barraba, Barooga, Collarenebri, Crookwell, Gundagai, Kangaroo Valley, Kempsey, Milton-Ulladulla, Cootamundra, and for the Hastings District, Lower Macleay and Tantawanglo Schemes.

Water quality investigations were undertaken for the towns of—

Dalton	Caroona
Ashford	Lismore
Camden Haven	Crescent Head
Boggabilla	Blue Mountains
Casino	Narromine
Tibooburra	Parkes
Gulgong	Walcha
Bonalbo	Walgett
Eurobodalla	

Soil investigations were carried out for numerous sewerage and water supply schemes throughout the State.

Research into water treatment was undertaken as follows:

- Portable Water Filtration Pilot Plant.
- Alum Sludge Drying Characteristics.
- Effectiveness of Lamella Settler.
- Pilot Horizontal Flow Sedimentation Tank.
- Literature Survey: "Asbestos Cement Pipes".

Water Supply Objective

To serve the State more effectively as a service engineering organization in the field of water supply, and to improve efficiency, from which will flow increased client satisfaction.

Background

Substantial government finance is allocated each year to local governing authorities to assist in the construction of water supply schemes in country towns. The Department is responsible both for the administration of the financial assistance so provided, and for the construction programme.

Extensive technical assistance is provided to councils, irrespective of whether the water supply scheme is to be subsidized, or whether it is to be financed from the council's own resources. The amount of subsidy made available is determined by government policy which has the objective of reducing local rating to an acceptable level. Because of the large number of councils seeking to undertake works, the Department places each proposed scheme on a priority list.

When a council seeks financial assistance for new works or the major augmentation of existing works, it is essential that the project in mind be clearly formulated in a preliminary way so that the technical aspects and economics may be assessed. Alternatively, it is open to councils to ask the Department to carry out a feasibility study to determine whether a scheme is, in fact, eligible for subsidy.

Operations

Investigations were carried out for—

- 27 district water supply schemes;
- 32 schemes for towns and villages;
- 2 rural water supply extensions.

Details of the projects involved are as follows:

Districts—

Albury-Thurgoona	Lennox Head-Ballina
Batemans Bay-Moruya	Lower Clarence
Bathurst-Orange	Lower Manning
Berrima	Manning, Nambucca-Bowraville,
Byron Shire	Nowra
Camden Haven	Parkes-Peak Hill
City of Blue Mountains	Pacific Palms-Seal Rocks
Coffs Harbour	Queanbeyan
Coonabarabran	Rocky Creek
Dubbo	Rous County
Guyra	Rylstone Kandos
Hastings-Port Macquarie-Wauchope	Tweed
Hume Shire Villages	Tantawanglo
Inverell	Uralla

Towns and Villages—Augmentations—

Ashford	Kootingal-Moonbi
Barraba	Lithgow
Casino	Manilla
Condobolin	Molong
Curlewis	Moree
Glen Innes	Narrabri
Emmaville	Narrandera
Griffith	Quirindi
Gunnedah	Tamworth
Guyra	Walcha
Howlong	Yanco
Inverell	

New Schemes—

Angourie
Boggabilla
Caroona
Daroobalgie

Pallamallawa
South Evans Head
Tingha
Yarrabandai

Towns—Rural Extensions—

Grafton—(Waterview, Seelands, Eatonsville)
Lismore—Alphadale

Water Supply Undertakings

South West Tablelands

The South West Tablelands Water Supply Scheme, which is managed by the Department, serves a population of about 30 000 people spread over a total area of about 800 square kilometres in the towns of Young, Harden, Murrumburrah, Cootamundra, Stockinbingal, Temora, Barmedman, Wyalong, West Wyalong, Ungarie, Jugiong and towns on the Northern Riverina County Council system.

Because of the extensive nature of the scheme in relation to the relatively limited population that it serves, the scheme is not self-supporting but is subsidized by the Government to allow the people of the region to receive their water at a reasonable cost. The scheme is conducted as a trading undertaking under the terms of the South West Tablelands Water Supply Administration Act.

In the development of the scheme over the past year, automatic control equipment was commissioned at Jugiong to operate two pumping stations.

Works designed to improve the distribution of water within the township of Harden were undertaken, while investigation of the reticulation for the township of Temora was completed.

Investigations continued into a major programme of new works to upgrade certain elements of the scheme at a cost of \$3.5 million. The work will improve the water supply to consumers at Young, Temora, Wyalong, and Cootamundra.

A major element of the scheme is a \$1 million programme designed to boost the water supply to Young by 40 per cent, as well as overcoming problems of inadequate water storage at the town. Increased water capacity will be provided by the construction of a major terminal storage with a capacity of about 25 million litres.

Work to the value of \$1.5 million is envisaged which will improve the supply of water to both Temora and Wyalong. In addition, there will be improvement in the trunk main carrying water between the two towns, which is in poor condition and subject to failure during times of peak demand.

About 3 kilometres of pipeline will be constructed to improve the high level distribution system in the town of Cootamundra.

Fish River

The Fish River Water Supply Scheme is operated as a trading undertaking under the terms of the Fish River Water Supply Act. Revenue is derived from the sale of water to local government authorities, principally the Blue Mountains City Council, the Electricity Commission and rural consumers.

The source of supply is a dam on the Fish River Creek, southeast of the township of Oberon. Although the damsite is remote from the main points of demand in the rapidly growing Blue Mountains area, the dam supplies sufficient water to flow by gravity throughout the region.

Recent growth, however, has been so extensive that an investigation has been undertaken to ascertain the need for an augmentation to cater for future demands throughout the entire system.

Water Treatment

Investigations were carried out for water treatment plant at the following 23 centres:

Albury	Leeton
Bathurst	Inverell
Berrima District (Medway)	Jerilderie
Bowral	Nowra District (Bamarang)
Casino	Merriwa
Glen Innes	Orange
Guyra	Moama
Coonabarabran	Tamworth
Dubbo	Tumut
Gloucester	Yass
Goulburn	Molong
Gilgandra	

Among the larger schemes, a \$7.5 million project at Tamworth is scheduled for operation in 1980, while a \$1.2 million plant at Berrima is also expected to be commissioned early in 1980.

Construction is scheduled to commence early in 1980 on a \$2.5 million water treatment plant at Inverell which will process water from the Copeton Dam as part of an overall augmentation scheme for Inverell estimated to cost \$6 million.

Community Water Supply Investigation

The fourth and fifth comprehensive reports of a series of town water supply strategy reports covering the State on a valley basis were completed for the Hastings-Manning and Tweed-Brunswick-Richmond areas.

The sixth report on the Darling River area upstream of Bourke, and the seventh on the Clarence region, are in the course of preparation.

Gosford/Wyong Water Supply

The rapid and continuing population growth in the Gosford/Wyong areas has accentuated the demand for an augmented water supply to meet the region's immediate and future needs.

In 1975, the Gosford and Wyong Shire Councils adopted in principle the recommendation of the Department that a joint scheme be undertaken to conserve and distribute enough water to serve the two shires, not only in the short term, but at least until the year 2000.

The cost of the works in progress is to the order of \$65 million, of which about \$30 million will be attributable to the construction of a large dam on Mangrove Creek, which will form the key storage to the scheme.

When completed early in 1981, Mangrove Creek Dam will be the second highest dam in New South Wales for urban water supply purposes, Warragamba Dam being the highest.

Design and construction is well advanced for Stage 1, involving the Mangrove Creek Dam, the Ourimbah Creek system which transfers run-of-the-river flows from Ourimbah Creek to Mardi Dam, the coastal connection which links the two shires' water supply systems, water treatment plants at Gosford and Wyong, and water distribution works in both shires.

At the close of the financial year, a \$30 million contract was awarded to Citra Constructions Limited for the construction of Mangrove Creek Dam. In association with the dam contractor, the Department itself is undertaking extensive site works and other related contracts. When full, the dam will have a capacity of 422 000 megalitres (90 billion gallons), with a storage forming a huge lake over an area of 1 215 hectares.

The Ourimbah Creek system is fully operational, and the coastal connection linking the two shires' water supply systems has been completed. The final designs on the new Wyong water treatment plant were well advanced, with a target for commencement of construction by early 1980 and completion by late 1981.

Insofar as distribution works are concerned, the sections completed include duplication of the Gosford treatment plant to Karingong and extensions of supply to the Foresters Beach, Parks Bay, Woy Woy Bay, Bensville and South Kincumber areas. Extensions to supply the Copacabana and McMasters Beach areas are expected to be completed by September 1979, while the scheduled date for supply to the Kilcare Peninsula is April 1980. Work was substantially progressed on the construction of the Niagara Park trunk main and service reservoir which will substantially increase the storage capacity of the Gosford system. Construction is scheduled to commence in the near future on the duplication of the major trunk main from Karingong to Gosford.

In Wyong Shire, the works completed include the Kanwal to Wallarah Road trunk main duplication, while work is scheduled to commence on the duplication of the Tuggerah to Kanwal, and Tuggerah to The Entrance trunk mains.

The total expenditure on Gosford/Wyong water supply scheme in 1978-9 was \$9.1 million, bringing the total expenditure on the scheme to \$20.5 million. It is anticipated that government funds will be available over the next three years to allow completion of Stage 1 works by about the end of 1981-2.

Finance

The expenditure on water supply schemes throughout the year was \$32.8 million.

Survey and Property Matters

Objective

To provide to the Department and its clients a service in all fields of surveying, survey drafting, property acquisition and management.

Operations

All classes of surveys were carried out for the Department, Government instrumentalities and local governing bodies.

Engineering and land surveys were made for country towns water supply and sewerage, harbours and rivers, public buildings, police stations, flood plain mapping and for the purchase, sale and lease of departmental lands.

A considerable number of surveys were carried out for the Department of Education. These included engineering surveys and contour plans for sewerage, drainage and ground improvements, boundary surveys for the acquisition of new school sites, additions to existing sites, as well as marking out and reporting on many established sites.

Surveys were made at predetermined intervals on beaches along the New South Wales coastline.

Summary of Surveys

						<i>Engineering</i>	<i>Land Matters</i>
Water Supply	..	..	..	..	..	24	23
Sewerage	..	..	..	..	..	25	12
Coastal Engineering	..	..	..	..	..	133	12
Public Buildings	..	..	..	..	..	..	1
Hospitals	..	..	..	..	..	8	3
Police, Courts and Prisons	..	..	..	..	..	19	17
Technical Colleges	..	..	..	..	..	16	13
Sport and Recreation Centres	..	..	..	..	..	7	..
Schools	..	..	..	..	..	69	64
Miscellaneous	..	..	..	..	..	26	16
						<hr/> 327	<hr/> 161

Drafting

Plans of surveys of both engineering works and land boundary definition were prepared in connection with many departmental projects and for other departments and authorities.

Plans were also examined on behalf of other departments and authorities to ensure that they conform to regulations governing the survey of land.

Technical descriptions of property were prepared for use in connection with departmental projects and on behalf of Local Government bodies and other authorities.

Recording and notation of all matters affecting departmental land were carried out by the Drafting Section. This section also collected and collated data required by surveyors to enable them to carry out surveys.

During the year the preparation of a Property Index, covering the whole of the State, was continued.

Summary of Drafting Work

						<i>Engineering Plans</i>	<i>Land Matters Plans</i>
Water Supply	..	..	..	..	..	103	100
Sewerage	..	..	..	..	..	201	60
Coastal Engineering	..	..	..	..	..	563	20
Hospitals	..	..	..	..	..	32	4
Police, Courts and Prisons	..	..	..	..	..	91	74
Local Government	..	..	..	..	..	..	8
Public Buildings	..	..	..	..	..	10	10
Miscellaneous	..	..	..	..	..	83	45
Staff Housing	..	..	..	..	..	..	3
Technical Colleges	..	..	..	..	..	38	9
High Schools	..	..	..	..	..	37	17
Public Schools	..	..	..	..	..	65	27
Sketch Plans	..	..	..	..	..	..	60
						<hr/> 1 223	<hr/> 437

Local Government Areas

Nine descriptions were prepared for alteration of internal and external boundaries for Local Government authorities; three descriptions were prepared for proclamation of urban and building areas, and twelve descriptions were prepared for proclamation of residential districts. There were also fifteen amendments and inquiries in respect of town planning schemes, seven Boundary Commission proposals and fifty two illustrative maps and sketches prepared in connection with Boundary Commission publications.

Title Search and Investigation

Title and survey information was obtained in connection with the acquisition of land for works of Government departments and for resumptions for Local Government bodies. Similar information was also obtained in connection with the sale or lease of departmental properties. Seven hundred and seventy-six cases requiring information of this nature were completed.

Miscellaneous searches, numbering 1 400, were undertaken including requests for copies of Deposited Plans, Certificates of Title, etc.

Thirty-eight Certificates of Identity were prepared. Four hundred and eighty-nine descriptions were prepared for purchase, sale, resumption or lease of land. Inscriptions were made on three hundred and forty qualification certificates issued by the Local Government Examination Committee.

Water Supply and Sewerage Schemes

Thirty-four lease agreements were arranged with private individuals.

Twenty-one approvals to construct prior to acquisition were arranged with public authorities.

Thirty-six new sketch plans were prepared to illustrate sites for proposed works.

Gas Pipelines

A number of applications for permits to survey, and licences to construct, gas pipelines were processed.

Design Control Objectives

To ensure that a satisfactory standard of design is achieved and sustained throughout the Civil Engineering Division, and that proper weight is given to environmental matters.

To provide a geomechanics and foundation engineering service to the Division, including an investigation and testing service through the Geomechanics Laboratory.

Operations

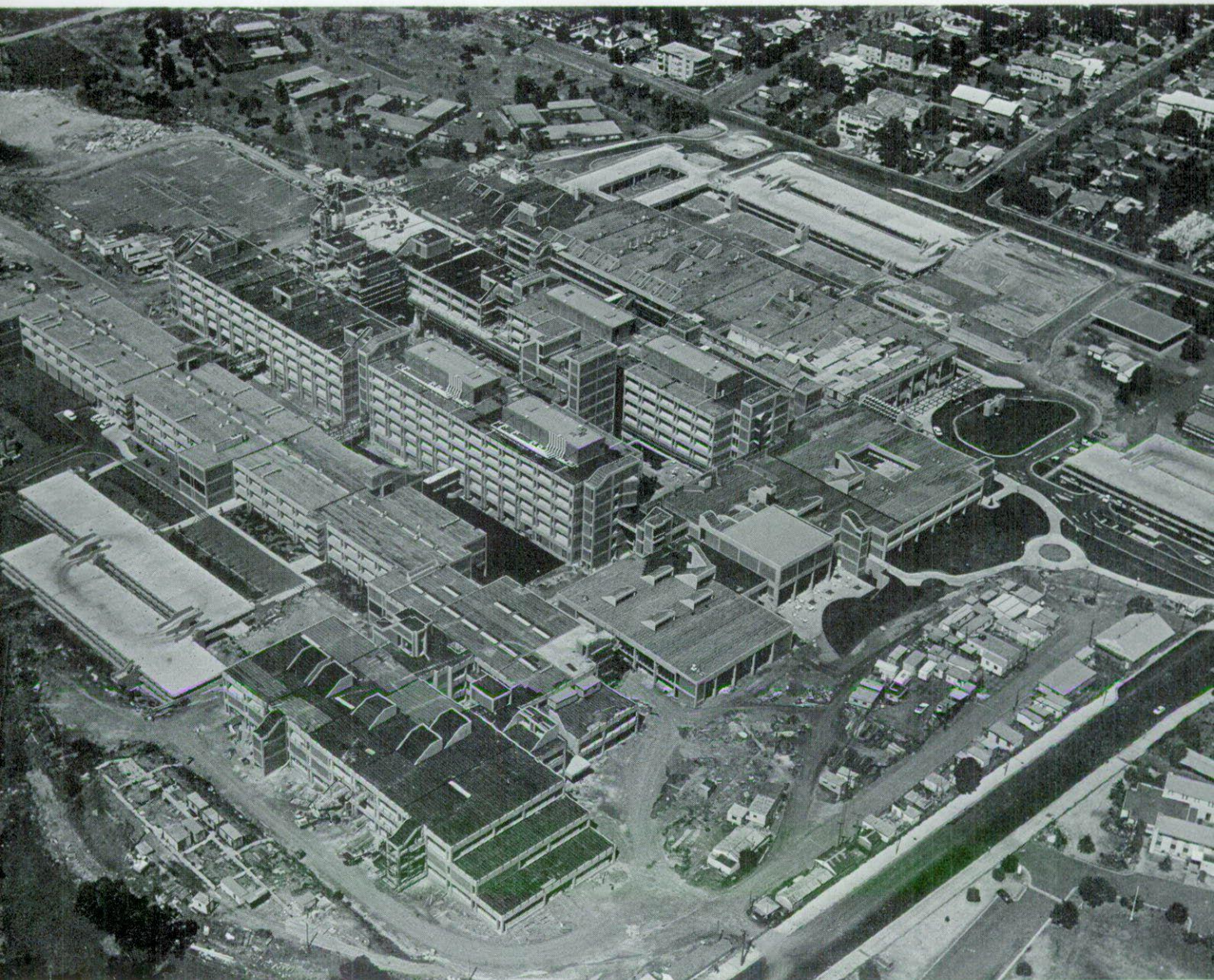
The more important works in the field of special designs were—

- structural design and specification for Bamarang water treatment plant, Nowra;
- preliminary design for the C. H. Hall Dam, a key element of the Tweed District water supply.

Research and development were continued on various topics, particularly in the areas of corrosion protection and the failure of structures and components.

The Geomechanics Laboratory throughout the year made its services available to private industry, councils and the various branches of the Department. Complete site investigations into Bamarang Dam for the Nowra Water Supply augmentation scheme was the most significant project undertaken.

The Westmead Centre, nearing completion.



Architectural

Operations

The Government Architect's Branch carried out major design and construction of public buildings for clients covering the disciplines of education, health, public buildings in both the architectural and engineering fields.

Design

Sketch plans were either completed or in the course of preparation for 493 projects, comprising 51 proposals for new Hospitals and extensions to those in operation, 363 for school buildings and technical colleges, 41 for court houses, police stations and gaols and 38 miscellaneous.

The more important of the sketches were—

Hospitals

				\$
Blayney District Hospital—Redevelopment	..	..	..	1,200,000
Lismore Base Hospital—Master Plan	..	..	..	3,750,000
Quirindi District Hospital—Development	..	..	..	1,800,000
St Vincents Hospital, Lismore—Nursing Home	..	..	..	1,100,000
Manning River District Hospital, Taree	..	..	..	2,000,000
Tweed Heads District Hospital—Stages 1 and 2	..	..	..	8,000,000
Coffs Harbour District Hospital	..	..	..	2,000,000
Nepean District Hospital	..	..	..	10,500,000

Education

Bidwill Education Centre	..	..	..	..	8,400,000
Alexander Mackie College	..	..	..	..	6,000,000
Sydney Technical College—Stage 2	..	..	..	..	5,400,000
Mt Druitt Technical College	..	..	..	..	5,200,000
Concord High School	..	..	..	..	2,900,000
Terrigal High School	..	..	..	..	3,900,000
Glebe High School	..	..	..	..	3,600,000
Holsworthy High School	..	..	..	..	3,500,000
Warren Central School	..	..	..	..	3,500,000
Belrose High School	..	..	..	..	3,300,000
Waterloo High School	..	..	..	..	3,100,000

Police Stations, Court Houses and Gaols

Penrith Police Station	..	..	..	..	4,100,000
Dubbo Court House	..	..	..	..	2,000,000

Miscellaneous

Parliament House—Stages 1a and 1b	..	..	..	..	30,000,000
Rawson Place Government Offices	..	..	..	..	23,800,000

Working Drawings

Working Drawings were either prepared or in the course of preparation for 242 projects, the more important being—

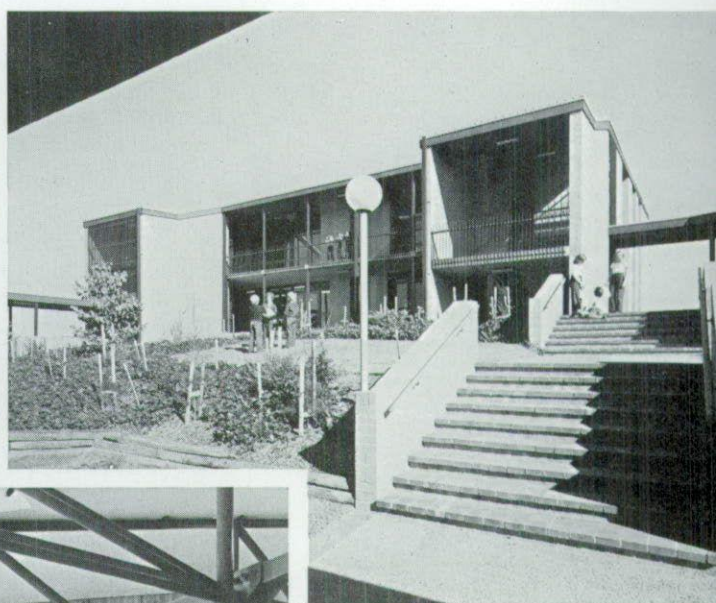
					\$
Dubbo West High School	..	..	..	..	4,450,000
Terrigal High School	..	..	..	..	3,900,000
Warren Central School	..	..	..	..	3,500,000
Westpoint High School	..	..	..	..	3,495,000
Oberon Central School	..	..	..	..	2,700,000

Construction

The total number of projects under construction was 2 143 of which 1 368 were completed at a cost of \$145,055,200 and 775 estimated to cost \$367,693,500 were in progress at the close of the year.



Above: Narooma High School



Above: Ambarvale Public School

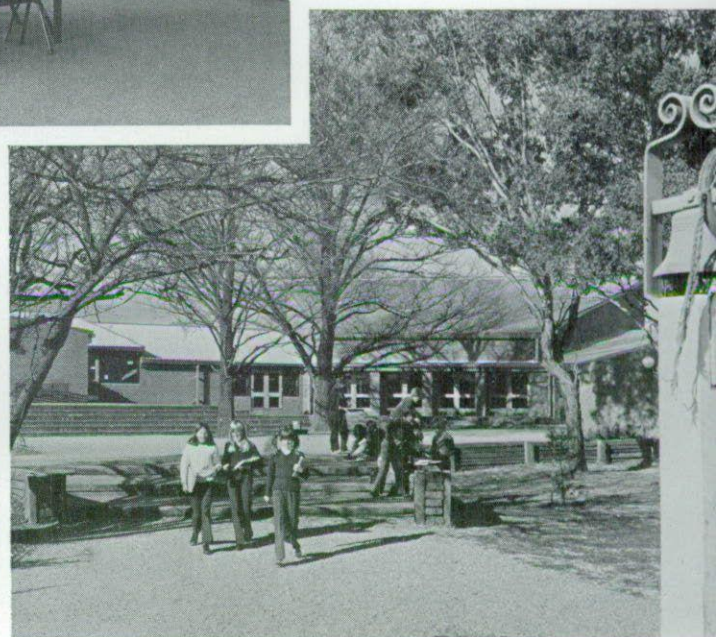
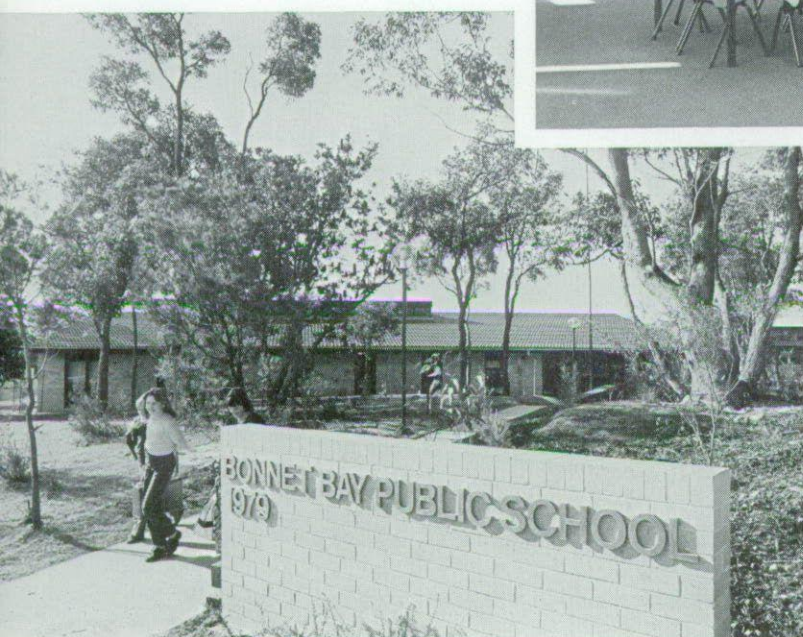


Centre: Library at Bathurst West Public School

Opposite page: Coonamble Public School

Below: Bonnet Bay Public School

Below: Kelso Public School



Schools

The programme of school building was broadly equivalent in scope to the programme of the preceding two years, but differed in character to the extent that more schools are being designed to incorporate changing educational requirements.

The results of new briefs for both high schools and primary schools are now appearing in a variety of completed projects throughout the State.

The new briefs, which re-define the requirements for schools, were produced jointly by the Department of Public Works and the Department of Education. Within fixed cost limits, architects engaged in the school building programme were able to produce a variety of solutions evolved out of the constraints relating to individual sites.

A number of primary schools were completed during the year which convincingly illustrate the flexible approach to planning. The flexible spaces within the school allow a variety of groups of varying sizes to work together. The buildings therefore, do not pre-determine the educational use and can, in fact, be used in a variety of ways.

Hampden Park Public School, the first completed to the new brief, has attracted considerable interest from educationists, architects and the media.

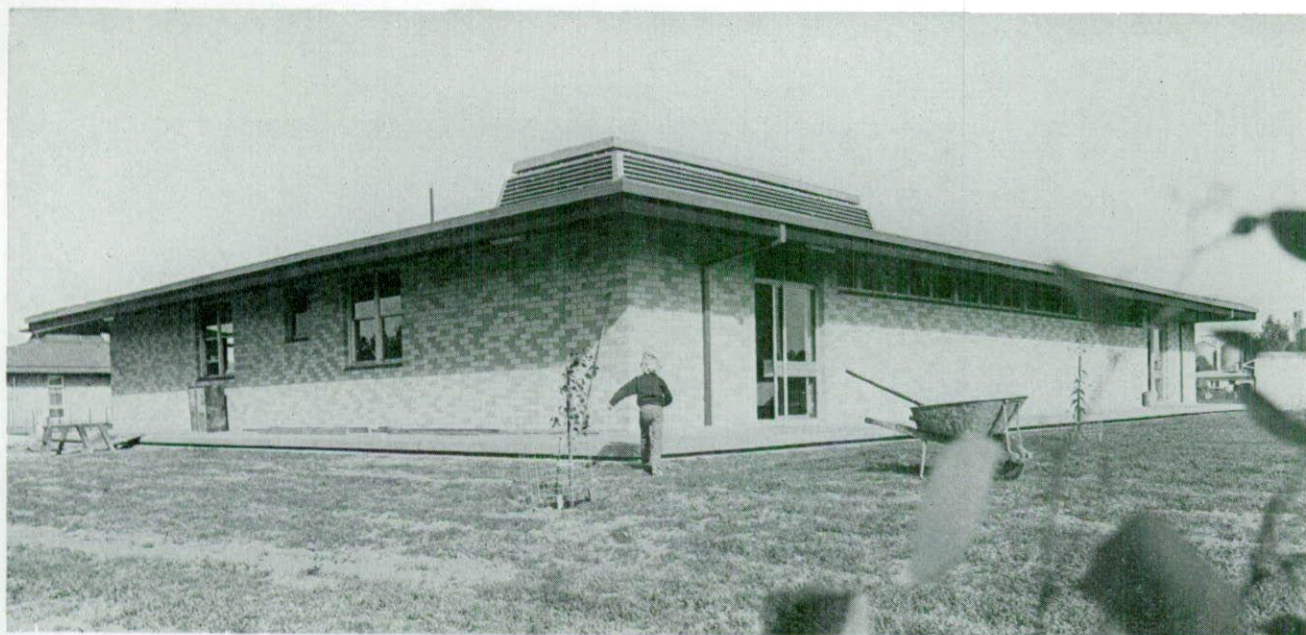
The second, Bonnet Bay Public School was officially opened by Her Royal Highness, Princess Anne during her visit to Australia earlier this year.

Kelso and Bathurst West Primary Schools are two further examples of the new breed in primary school construction.

New high schools are nearing completion at Colo, Sawtell and at a number of other centres throughout the State.

Narooma High School, which has evolved from the old central school, opened during the year at its beautiful bushland site on the outskirts of the township of Narooma.

Two community schools also opened during the year. Sarah Redfern Community School at Minto is a complex combining a primary school, high school, a special school and facilities for the use of the local community. Campbelltown City Council co-operated in the venture with a significant financial contribution towards amplified school facilities designed to give greater accessibility to the whole community. A joint school and community library is under construction, as is a large auditorium.

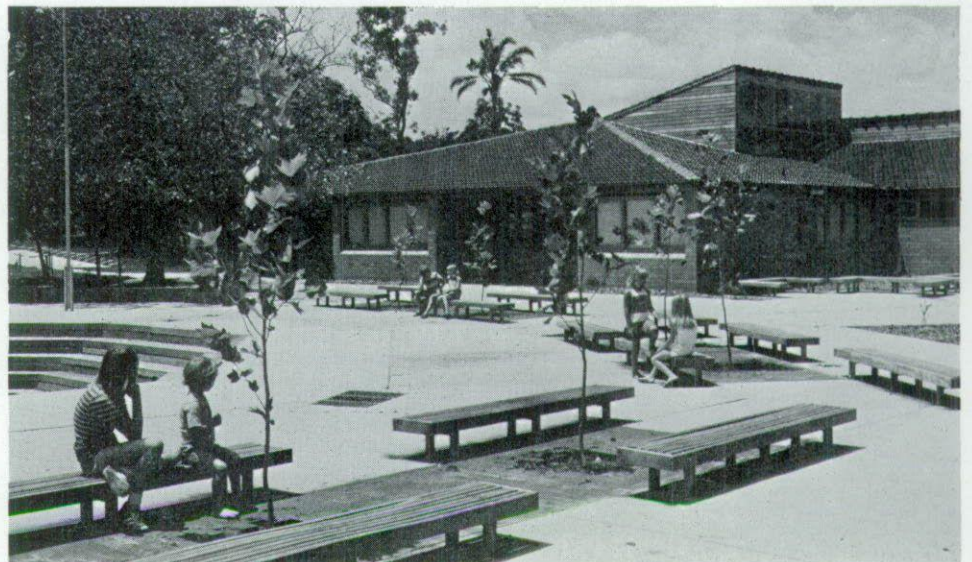


Several other projects in the Campbelltown area are being planned as co-operative ventures, establishing the schools as community centres.

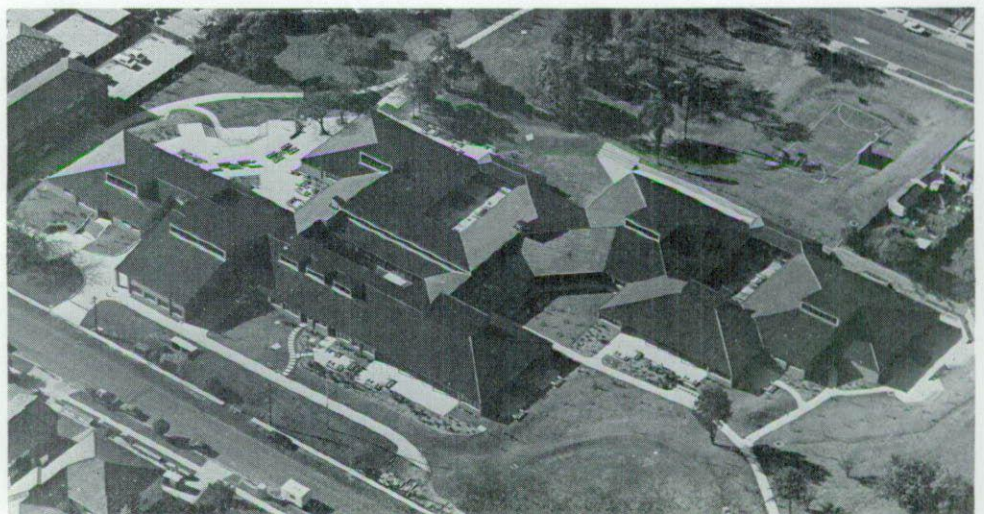
To mark the International Year of the Child, an environmental mini-grant scheme was initiated by the Department in conjunction with the Royal Australian Institute of Architects. The scheme offered \$50 grants to school students to modify their classroom or playground environments. Schools from all over New South Wales responded to the scheme, with over 500 applications received, of which it was possible to fund 240. Many of the applicants wanted to set up "reading nooks" within their classrooms, or to improve the general feeling of the rooms. Usually this involves making some cushions or curtains; buying some carpet for the floor; or doing up some old furniture. The more ambitious schemes involve making paper mache trees or decorations to create space within the room. Others opted for little lofts.

The recent diminished Federal funding for school building will mean that it will be necessary to pay even more attention to cost planning and cost control with a view to ensuring that maximum value is obtained from available finance.

Hampden Park Public School.



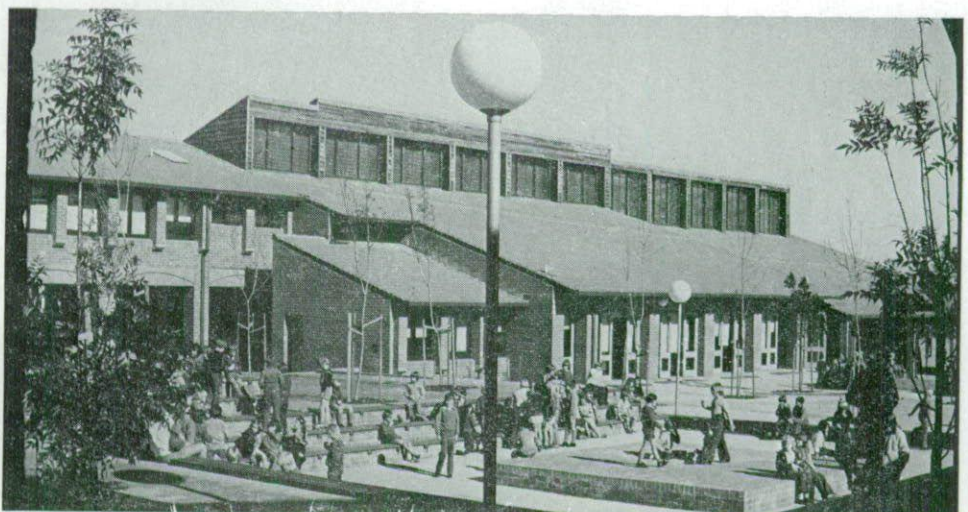
Hampden Park Public School—aerial view.

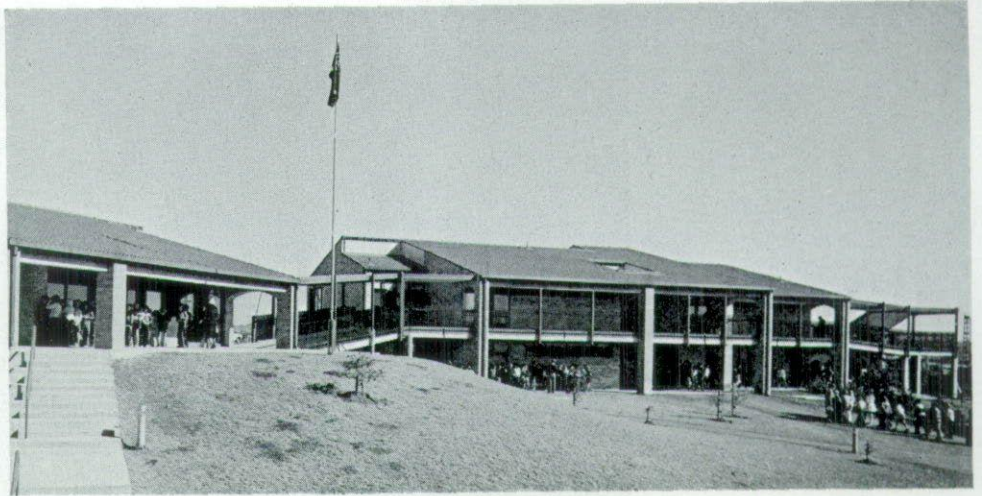




Library, Bidwill Education Centre.

Bidwill Education Centre.

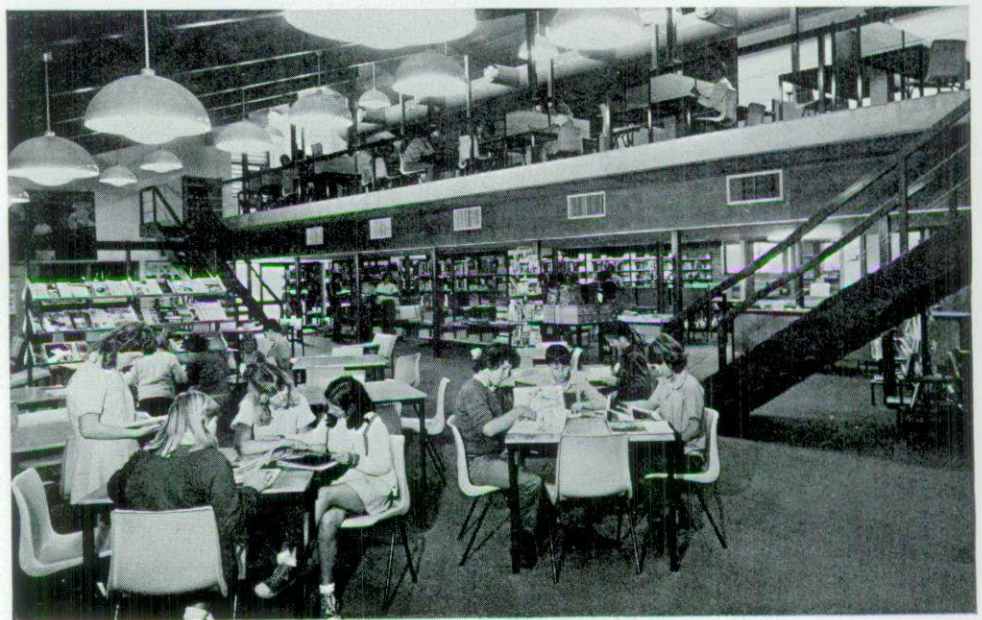
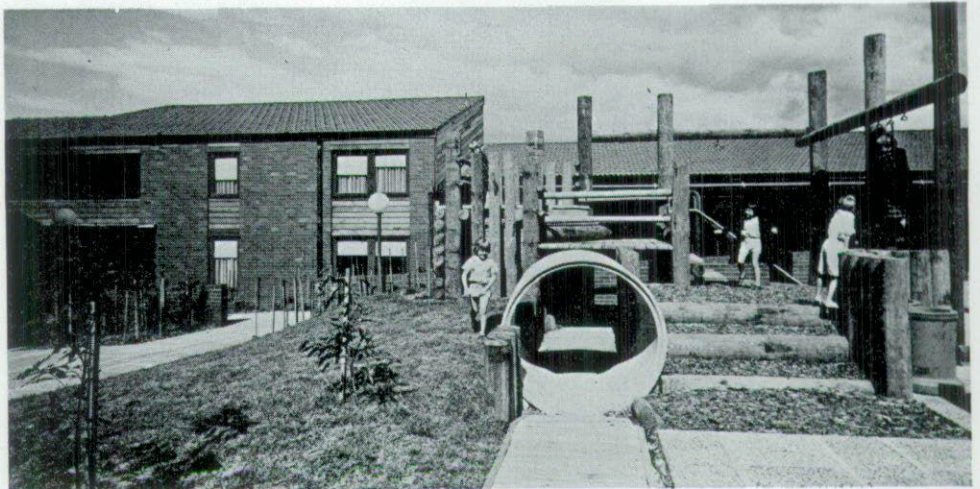




Above: Sarah Refern School, Minto

Below: Prince of Wales Hospital School

Bottom: Library, Singleton High School



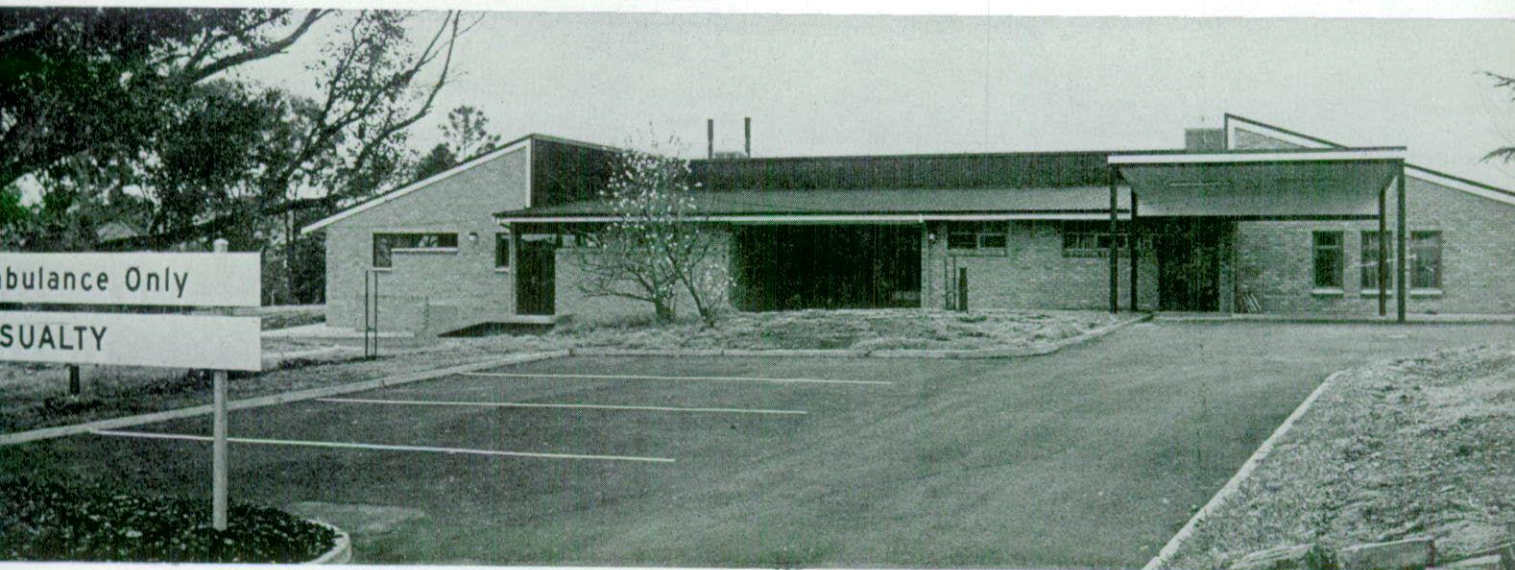
Hospitals

The Health Buildings Section of the Government Architect's Branch continue to undertake architectural and engineering feasibility studies and to compile briefs for the Health Commission of New South Wales; but the preparation of sketch plans and working drawings, together with the supervision of construction, remained the prime function.

There were 14 major hospital projects in various stages of investigation and design, as follows:

<i>Project</i>	<i>Estimated cost</i> \$
Blayney District Hospital—Redevelopment including a new single storey 25 bed ward, together with an operating theatre suite and kitchen	1.2 million
Bathurst District Hospital—Masterplan involving a study of future development .. .. .	..
Sydney Hospital—Redevelopment, including the construction of a new Central Services Block and the remodelling of existing buildings	10 million
St Vincent's Hospital, Darlinghurst—Redevelopment, including the construction of a new Services Block and major renovations.. .. .	14.3 million
Long Bay Gaol Hospital—New 160 bed hospital unit within the precincts of the prison	5 million
Garrawarra Hospital—Masterplan for future development	1 million
Lismore Base Hospital—Masterplan	3.75 million
Mater Misericordiae Hospital, North Sydney—Redevelopment	16 million
Quirindi District Hospital—Development	1.8 million
St Vincent's Hospital, Lismore—New Nursing Home ..	1.1 million
Manning River District Hospital, Taree—Masterplan ..	2 million
Tweed Heads District Hospital—Masterplan in two stages	9.2 million
Coffs Harbour District Hospital—Development	2.1 million
Nepean District Hospital—Redevelopment, including new ward blocks, operating theatres and supporting services	10.5 million

Bindawalla Hospital, Wellington.





Westmead Centre.

Westmead Centre

The success of the planning, design and construction of the Westmead Centre is attributable primarily to a combination of factors, the most important of which were—

- Fast-tracking;
- Cost Control;
- Time programming;
- Rapid decision making;
- Team work.

Construction of the \$175 million hospital continues on target. Whilst still under construction, the project is under partial occupation and is functioning as the most modern hospital complex in Australia.

The rapid progress, unprecedented in any other project of similar size and complexity in this country, can be gauged from the cash flow over the construction period, which was—

1975-6—\$16.1 million

1976-7—\$35.2 million

1977-8—\$48 million

1978-9—\$47.1 million

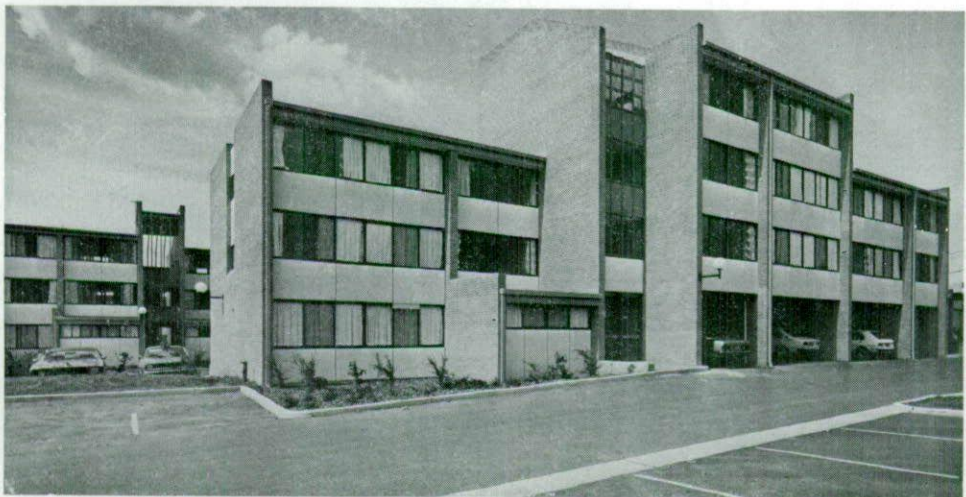
When fully occupied, the 925 bed hospital will be a specialist referral hospital for the Western Metropolitan Region, strategically located in an area occupied by one-third of the population of Sydney.

At the end of the financial year the position on the major aspects of construction was as follows:

The First Ward Block was completed and the first patients admitted at the end of October, 1978, in line with the target established four years previously.

The Second Ward Block was more than 50 per cent complete and programmed for total completion by December, 1979 in line with original targets. This five-storey building has a bed capacity of 400 patients.

Staff residences, Westmead Centre.



The Accident and Emergency Block was completed and handed over.

The Administration Block, including the Hospital Library, Cafeteria and Auditoria is complete and functioning.

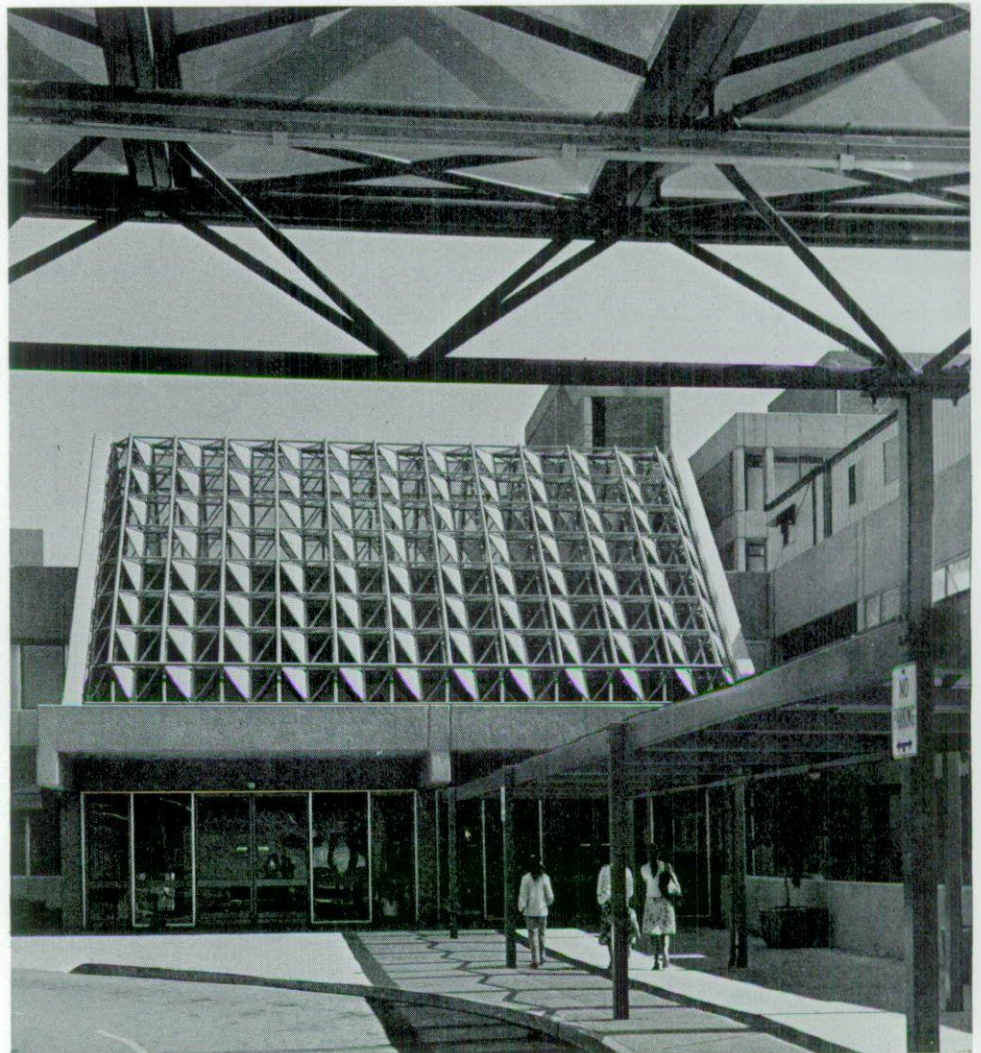
Residential Accommodation was about 20 per cent complete and occupied, with the intention that the remainder would be progressively occupied until total completion is achieved during 1980.

The Dental School was structurally completed, with the internal fit-out and services proceeding to programme. The school will accommodate 230 dental chairs and is expected to be ready to receive students during 1980.

A Coroner's Court has been authorized and work commenced on foundations, with the court complex planned for completion by the middle of 1980.

In summary, the Westmead Centre is now a functioning hospital with over 40 per cent of the total number of beds commissioned. About 84 per cent of the predicted cost has been spent, and 92.4 per cent committed. Of the \$27.7 million to be spent, about \$10 million has been set aside for equipment, most of which is due for delivery during the financial year 1979-80.

Entrance to the Westmead Centre.



Public Buildings

There was continuing progress in the design and building programmes of various clients involved in the field of public buildings, particularly in the area of new police stations, additional accommodation for the Public Service Board and the Department of Corrective Services.

Newcastle Police Station

Subsequent to the completion of major excavation works, a contract was let for the construction of the Newcastle Police Station at an estimated total cost of \$7.5 million. When completed, the building will be the headquarters of the north-eastern district of the Police Department, and will be the largest police station ever erected in New South Wales. The four floors above ground level comprise a general administrative office space, a pistol range, a communications centre, and various other facilities.

Manly Police Station and Court House

The Manly Police Station and Court House were built in the early 1920's, and form a significant streetscape in Belgrave Street. Under a \$1.2 million expansion programme, every effort has been made to preserve the facade of these buildings in planned renovations and extensions. The extensions include the construction of a new three storey building for police accommodation at the rear of the existing police station. Under the contract the Court House is being extended on the ground level, with a two storey addition at the rear of the building. The existing court rooms will be completely renovated and provided with new carpet, air-conditioning and modern public space.

Ballina Police Station

Construction commenced by departmental day labour on the construction of a new \$500,000 Police Station at Ballina.

Dee Why Police Station

A contract worth \$750,000 was let for a two storey extension to Dee Why Police Station, including the provision of a lift to service the building.

Gosford Police Station and Court House

A major Police and Court House complex is under planning for the Gosford region, including the construction of a new divisional Police headquarters and a complex of six court rooms with ancillary offices. The estimated cost is to the order of \$12.5 million.

Sydney Police Centre

The Central Police Station in Sydney was constructed in 1898; it is not only inadequate in size, but is completely outmoded in the standard of accommodation for both police and prisoners. The site, in Central Street, while quite historic, does not permit expansion and has very poor access.

In order to overcome these deficiencies, planning has been proceeding on a major development known as the Sydney Police Centre which will be located on a large site bounded by Brisbane, Campbell, Riley and Goulburn Streets, Surry Hills.

The estimated cost of the project is to the order of \$33 million.

The project is not merely a relocation of the Central Police Station, but is designed to introduce a major change in the operations of police stations in the inner city area.

The major building to be constructed on the site will be a low rise structure of seven levels, of which two will be below ground. It has been designed to harmonise with its location between the residential area of Surry Hills, and the fringe of the central business district.

The Centre will allow the Police Department to introduce a large city police district, incorporating present fragmented police stations such as those at Central, Phillip Street and Regent Street. It will establish a major receiving, holding and despatch centre for prisoners taken into custody in the city of Sydney.

The Centre will accommodate a major communications centre comprising—

- the Police Telephone Exchange;
- the Radio Operation Section;
- the Stolen Motor Vehicles Index;
- the Mapping Section;
- the Police Computer Section.

These functions form an integrated communications centre which, for reasons of economy and design, maintenance, operation and security should be accommodated within the one building.

At the close of the financial year, tenders has been invited for the demolition of existing buildings on the site, while it was planned to let a tender for the bulk excavation contract before the end of 1979.

Artist's impression of Engadine Police Station.



Bathurst Gaol—Redevelopment

Major reconstruction work expected to cost \$6 million commenced at Bathurst Gaol to modernize and humanize the original gaol which was gutted by a fire in 1974.

When completed, the renovated and extended gaol will have a significant impact on the present shortage of high security accommodation for prisoners. Tenders were invited for a major contract worth \$3.4 million involving internal alterations and the renovation of nine existing buildings at the gaol, including four cell blocks, to provide accommodation and facilities for 200 maximum security prisoners. Many of the prisoners will be accommodated in housing units of sixteen, each unit with a common living room, kitchenette and shower room. The housing of prisoners in small self-contained units will provide a better social environment and eliminate many of the management problems associated with large scale institutional settings.

The prisoners will be accommodated in four cell blocks comprising:

- Two three-story cell blocks each with four units of sixteen prisoners;
- A two-storey cell block housing short sentence, remand and reception prisoners;
- A special security unit of thirty four cells to provide a segregated area for high security risk prisoners.

Increased recreational and educational facilities, including a gymnasium, an enclosed sports oval, a workshop and an education centre for intensive vocational training will be provided within the re-built gaol.

A separate contract worth \$900,000 was let for a new services block outside the gaol perimeter housing the new gaol Kitchen, officers' dining room and associated facilities.

Long Bay Gaol

Work began on the upgrading of the electrical system throughout the Long Bay complex by the installation of new sub-mains and electrical rewiring at a cost of \$320,000 for the first stage. Subsequent stages will be carried out in the following financial year, and the work will allow prisoners to use electrical appliances, television, heaters and fans within their cells and provide more reasonable working conditions for custodial staff.

Mulawa Detention Centre

Women prisoners at the Mulawa Detention Centre at Silverwater will be provided with their own rooms in a new prison development to provide them with more privacy. The development is in line with a recommendation of the Royal Commission into Prisons that separate accommodation and individual cells be provided for the women prisoners at Mulawa instead of the present dormitory accommodation.

Each cell in the new building will be comfortably furnished with its own shower and toilet facilities, and will be provided with heating.

The block, costing about \$900,000, will accommodate 60 women under medium security conditions. Each of the prisoners will have her own room in a housing unit of 15 prisoners, each unit sharing a common lounge and dining area.

Metropolitan Pre-Trial Remand Centre

An important recommendation of the Royal Commission into Prisons was that a new remand centre be established for the Sydney Metropolitan area. The recommendation was examined by an inter-departmental committee, from which a site selection committee was formed to examine sites for a city pre-trial detention centre, to accommodate about 100 prisoners for short terms during court proceedings.

It is proposed that the complex be established in conjunction with smaller remand centres accommodating 200 prisoners for longer remand periods. The indicative cost of the project is to the order of \$6 million.

Narrabri Gaol

Sketch designs were prepared for a new prison complex at Narrabri, estimated to cost \$1.8 million.

Special Care Unit, Long Bay

Construction was well advanced on the conversion of a wing at Long Bay from a standard cell block to accommodation suitable for housing disturbed prisoners requiring special care.

The cost is to the order of \$616,000 and the unit will contain facilities for professional medical staff, accommodation for 46 prisoners and improved dining and recreational facilities. The work environment for the custodial staff will be upgraded to a high standard.

Maitland Gaol—Kitchen

Tenders were invited for a new kitchen at Maitland Gaol incorporating modifications to comply with the requirements of the Heritage Act in respect of this important historical building. The cost is to the order of \$570,000.

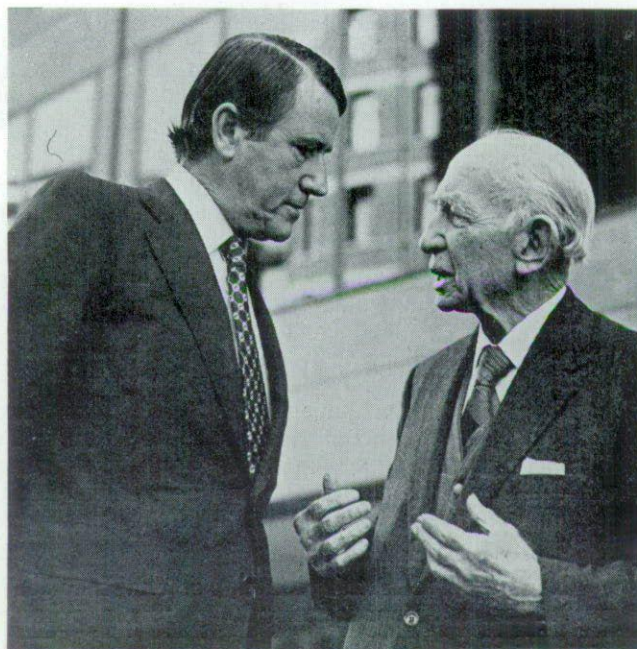
McKell Building, Rawson Place

Construction of the \$23 million McKell Building in Rawson Place has proved a welcome development for the uptown area of the city of Sydney.

Rising 80 metres above ground level, and with 28 levels of floor space, the building accommodates about 2 000 State Government employees, mainly from the Department of Agriculture and the Health Commission of New South Wales.

This is the third major State Government Office Building constructed in the city over the last decade or so.

The building was named after Sir William McKell, former Governor-General of Australia and Premier and Treasurer of New South Wales. It was officially opened by the Premier, The Hon. Neville Wran, Q.C., M.P., on 11th June, 1979.



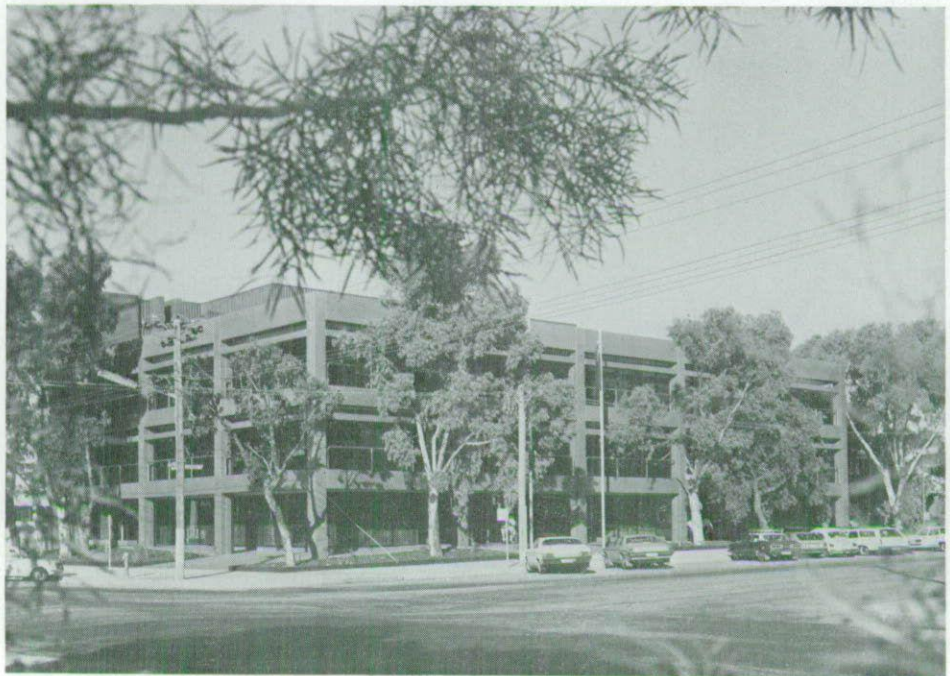
The Premier speaks to Sir William McKell at the official opening of the McKell Building.

Broken Hill Government Offices

Nine Government departments previously based in scattered accommodation all over Broken Hill now occupy a \$2 million building on the corner of Sulphide and Blende Streets. Special design features such as tinted glass give the building substantial protection from the direct rays of the sun, while its appearance is enhanced by a group of gum trees which were retained and incorporated in site landscaping.

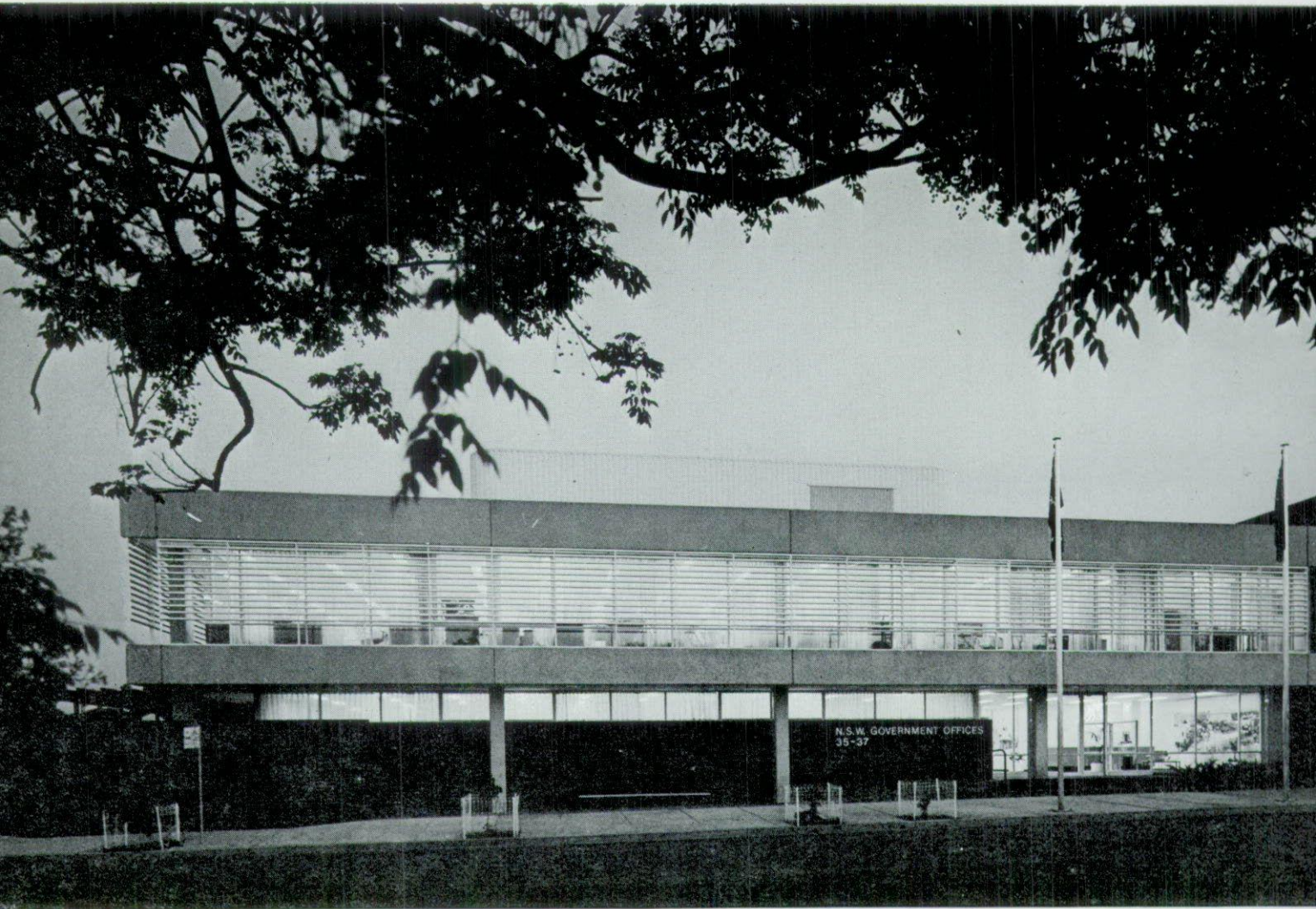
The building was officially opened by the Premier in April, 1979. The cost was in the vicinity of \$2 million.

Broken Hill Government Offices.



Reception area, Broken Hill Government Offices.





Gunnedah Government Offices at dusk.

Gunnedah Government Offices

Construction was substantially completed on a \$1 million office block in Gunnedah, accomodating eight Government departments and featuring a pre-cast concrete facade with white metal subscreen slats at first floor level.

Griffith Government Offices

Sketch plans were completed for a \$1.3 million Government Office Block to be sited in Banna Avenue, Griffith.

The building is planned to accommodate seven State Government Offices and will be of single storey construction.

Newcastle Government Offices

A site for the new State Government Office Block at Newcastle was selected in Arnott Street, Newcastle. The building proposed is a reinforced concrete structure consisting of a ground floor, two upper floors and a lower parking area.

The building will provide centralized accommodation for 13 departments presently housed in other locations in Newcastle.

Wollongong Government Offices

An investigation and report on site selection for a proposed Government Office Block in Wollongong was completed. Preliminary feasibility studies were prepared on three of the recommended sites.

Training Centre for State Emergency Services

Following the rejection of the Linden site as referred to in the Department's last annual report, an investigation and report on various other sites was completed. Of the sites investigated, seven are considered worthy of further investigation.

Public Works Department, Broken Hill

Development of a new depot for the Building Construction and Maintenance Branch of the Department at Broken Hill was commenced, including renovation of the existing building and provision of new accommodation for a carpenter's shop and the garaging of departmental vehicles.

Department of Mines, Londonderry

Proposals were developed for the extension of the premises of the Department of Mineral Resources and Development at Londonderry so as to incorporate additional facilities for fire extinguisher testing, dynamometer testing, gaseous-environmental testing, brake testing and other associated work. The proposed extensions, estimated to cost \$7.4 million in a staged development, will include a fire and minor explosions gallery and the storage required for an extensive bore core library.

New Fire Station Headquarters, Sydney

A feasibility study was undertaken for a new headquarters Fire Station complex for the Board of Fire Commissioners, centrally located in the city area, and with facilities for—

- the administrative headquarters of the New South Wales Fire Brigades;
- the Central Fire Station;
- underground car parking for 100 cars.

The existing site in Castlereagh Street and an adjacent alternative site were evaluated for the study.

Central Workshop Development for the Board of Fire Commissioners, New South Wales

A preliminary feasibility study was completed which recommended that a new industrial complex be constructed at Five Dock to house mechanical workshops, electronic workshops, building maintenance workshops, transport accommodation and storage for the Board of Fire Commissioners, New South Wales.

The proposed building will incorporate the most recent advances in workshop technology. The estimated cost is expected to be of the order of \$3 million.

Government Information and Sales Centre

Following upon a decision by the New South Wales Government to upgrade its publication sales and information service to the community, the ground and mezzanine floors of the P. & O. building in Hunter Street were remodelled to accommodate the new Centre.

The new office incorporates information counters, geometric display shelves, book gondolas, a sales area, a fully equipped theatrette, and administrative offices.

N.S.W. Government Information Centre.



Solar Energy Information and Demonstration Centre

In the light of the State Government decision to establish a permanent Solar Energy Information and Demonstration Centre, the Department was requested to undertake internal modifications and a fit-out of the third floor of Cleland Bond in Argyle Place, The Rocks.

The large, air-conditioned display area features a comprehensive range of solar energized domestic and commercial equipment, together with display panels of historical and practical interest. A theatrette and administrative offices complete the Centre.

Planning commenced in January, 1979, and the project was scheduled for completion by August, 1979, at a cost of \$140,000, exclusive of display items.

Court Complex in Mark Foys' Building

The whole of the 4th floor of the Mark Foys' Building on the corner of Elizabeth and Liverpool Streets, Sydney has been transformed into the largest single grouping of Magistrates Courts in the Southern Hemisphere.

An imaginative architectural approach was adopted in a \$1.6 million project undertaken within a record 8 months construction time, with the aim of relieving overcrowding at the congested Phillip Street and Central Courts of Petty Sessions.

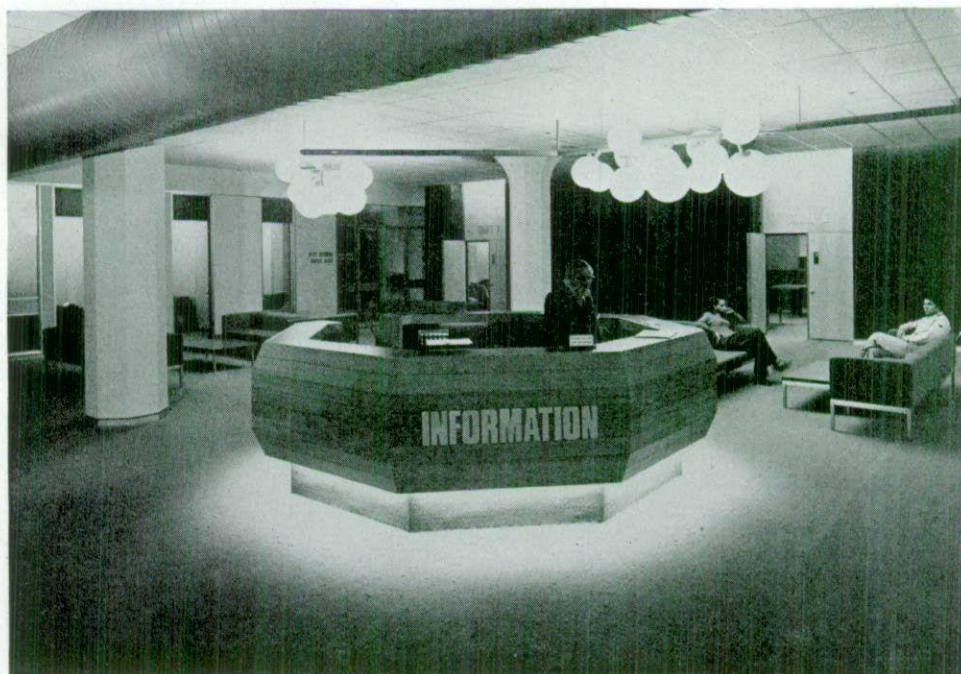
Seven courts were built side by side over a whole floor with a large and colourful waiting area for up to 200 people.

The majority of the courts will be used for traffic cases, although there is provision for up to two Criminal Courts within the complex.

The main emphasis of the Courtroom design is upon informality, with an accent on colour and comfort. The courts are fully carpeted, sound-proofed and equipped with sound recording and transcription facilities.

A section of the 6th floor of the Mark Foys' building was also renovated under the project to provide accommodation for the administrative section of the Magistrates Courts administration.

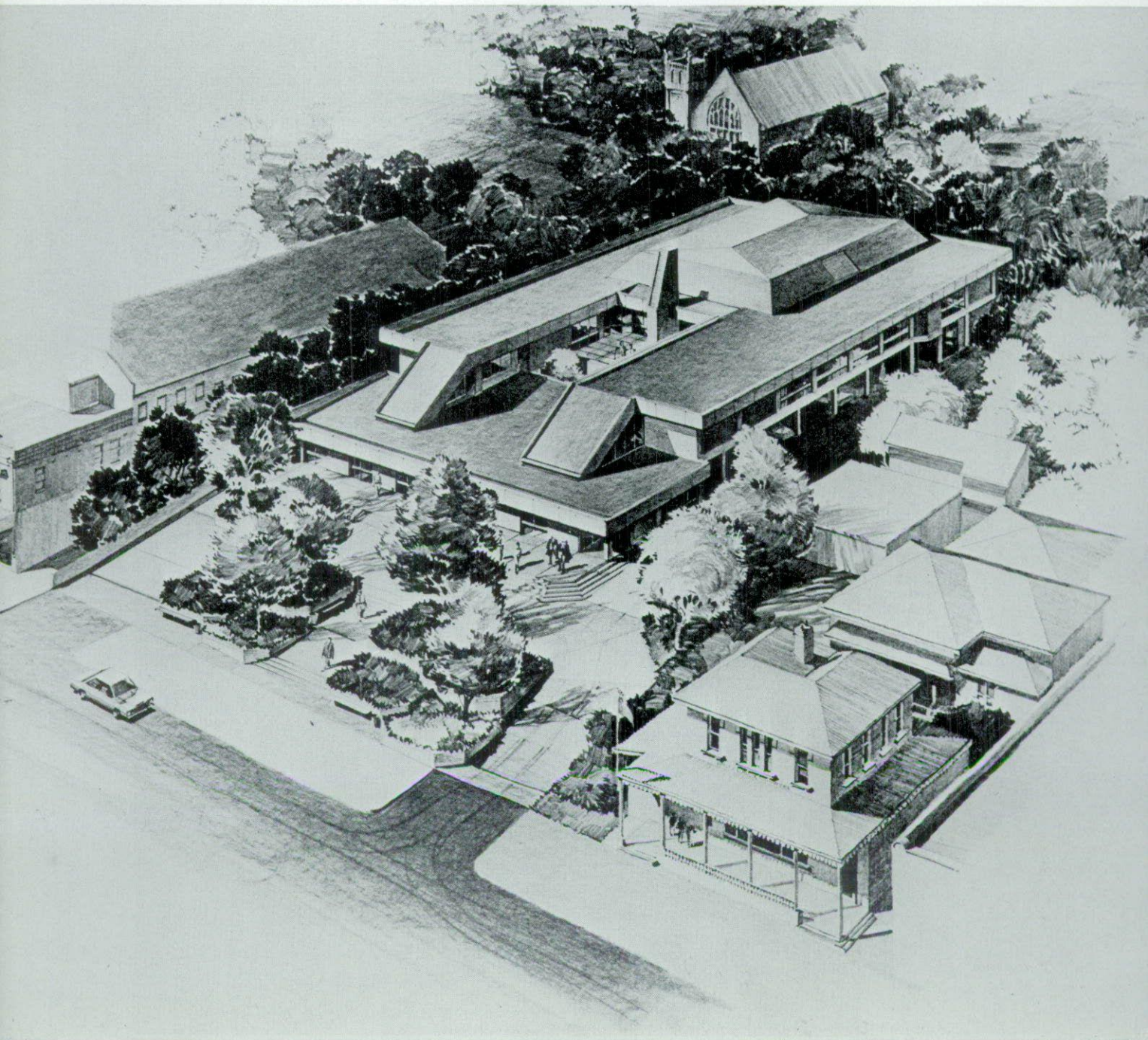
Public area, Magistrates' Courts, Mark Foy's Building.



Lands Department

An internal restoration within the historic Lands Department building is being carried out by the Department at a cost of \$1 million. Simultaneously, external stone restoration is being undertaken under a \$1 million contract. However, close examination of the stones after the erection of scaffolding by the contractor revealed that there is a much greater need for restoration than was originally envisaged. It is estimated that the total cost of the work will now be to the order of \$2 million.

Artist's impression of Muswellbrook Court House.



Special Projects Parliament House

The new multi-storey addition to Parliament House, on the Sydney Domain frontage, reached its full height of 13 levels and is scheduled for completion by May, 1980.

The new building will provide urgently needed accommodation for Members of Parliament, and for the Parliamentary staff.

Construction is being project managed by the Department, with building work being phased to suit available loan finance.

Facilities within the new building include—

- Accommodation for 160 members, including 19 Ministerial suites;
- A new Parliamentary Library;
- Dining rooms and refreshment facilities for members, staff and visitors;
- Car parking for 230 cars;
- Recreation areas for Members of Parliament.

Planning proceeded on the next stage of construction which will be the re-furbishing of the historic section of the Parliamentary precinct. The Macquarie Street frontage will remain unaltered because of its historical significance. It is a well known land-mark in Sydney and its pleasant facade, with its colonnaded verandahs immediately mark it as an excellent example of Colonial architecture. It is intended to start letting contracts for this aspect of the work early in 1980 so that construction can commence immediately the Members of Parliament move into the new building.

The total estimated cost is to the order of \$40 million.

Sydney Entertainment Centre

The Sydney Entertainment Centre is being constructed in the historic Hay-market area of Sydney. Its construction is at the forefront of moves to promote the commercial revival of the area as a major entertainment venue and tourist attraction.

The Entertainment Centre building will stand in an extensive landscaped plaza which will be one of the largest in Sydney, and can operate as a fine weather extension of Paddy's Market. The Market's Building to the south and the Stores Building to the east, both recorded historic buildings, will benefit from the creation of these plaza areas. The Centre will be the largest covered multi-purpose entertainment facility in Australia, and will seat up to 12 000 people in a column-free auditorium with good sight lines and acoustics.

The firm of John Holland (Constructions) Pty Ltd was selected to be responsible for the design and construction of the building. Construction was scheduled to commence in July, 1979, with the anticipation of completion early in 1981. The Department will supervise the construction of the building on behalf of the Sydney Entertainment Centre Company.

Sydney Sports Stadium, Homebush Bay

A brief was completed for a 70 000 seat stadium to be the focus of a large area of open land under State Government control at Homebush.

Features of this major sporting complex will include—

- A warm-up oval;
- An adjacent indoor sports facility with provision for up to 4 000 spectators;
- Provision for a licensed club to be constructed within the main grandstand;
- Car parking for 10 000 cars.

An indicative cost of the stadium and the associated car park is \$56 million.

The construction period is estimated to be three years.

Sydney Olympic Games, 1988

At the request of the Premier's Department, a feasibility was undertaken in relation to proposals for a bid to stage the 1988 Olympic Games in Sydney. The study included a costing of proposed facilities for the games. It was subsequently decided by State Cabinet that Sydney would not attempt to stage the games.

Education Department Furniture Workshops

A new furniture and manufacturing workshop is under construction at Wetherill Park for the Department of Education at an estimated cost of \$14.2 million. The Centre will be used for the manufacture and storage of furniture prior to despatch to State schools.

Construction is being project managed by the Department and it is planned to commence warehousing operations in January, 1980, with progressive occupation of the administration building and commissioning of the workshop during 1980.

Ryde College of Catering Studies and Hotel Administration

This \$12 million college, the largest of its kind in the Southern Hemisphere, was completed in August, 1978, and officially opened by the Premier in October, 1978. The bars and dining room were well patronized by the public as part of the College's training programme for students.

Royal Botanic Gardens

A contract was let in January, 1979, for the construction of a new kiosk within the Royal Botanic Gardens. The accommodation includes a milk bar on the lower level, a main dining room, private dining rooms and a terrace for outdoor eating on the upper level.

The estimated cost is \$530,000 and construction is scheduled for completion by November, 1979.

Sport and Recreation Centres

Planning and construction of improved facilities at various centres conducted by the Department of Sport and Recreation continued throughout the year. The Broken Bay Sport and Recreation Centre will be provided with modern and improved facilities under a \$2.2 million redevelopment programme to be undertaken in three stages. This will include the construction of four new lodges, a toilet block, new kitchen, administration area and hospital, recreation hall and other associated facilities. The new accommodation, which will not be visible from the water, has been designed to blend into the surrounding bushland by the use of timber materials and log pile columns. The dormitories will open out onto large timber decks and have pleasant views of the water. Planning continued on a similar project at Jindabyne, and feasibility studies began for the following centres:

- Minamurra Falls;
- Grose Wold;
- Lake Keepit—Redevelopment;
- Budiderry;
- Lake Ainsworth.

Supreme Court Restoration

Wood-panelled court rooms in the old Supreme Court in King Street are in use again after the completion of an 18 month restoration project. The historic complex, originally designed 150 years ago by the convict architect, Francis Greenway, has been fully restored and renovated by the Department at a cost of \$2 million.

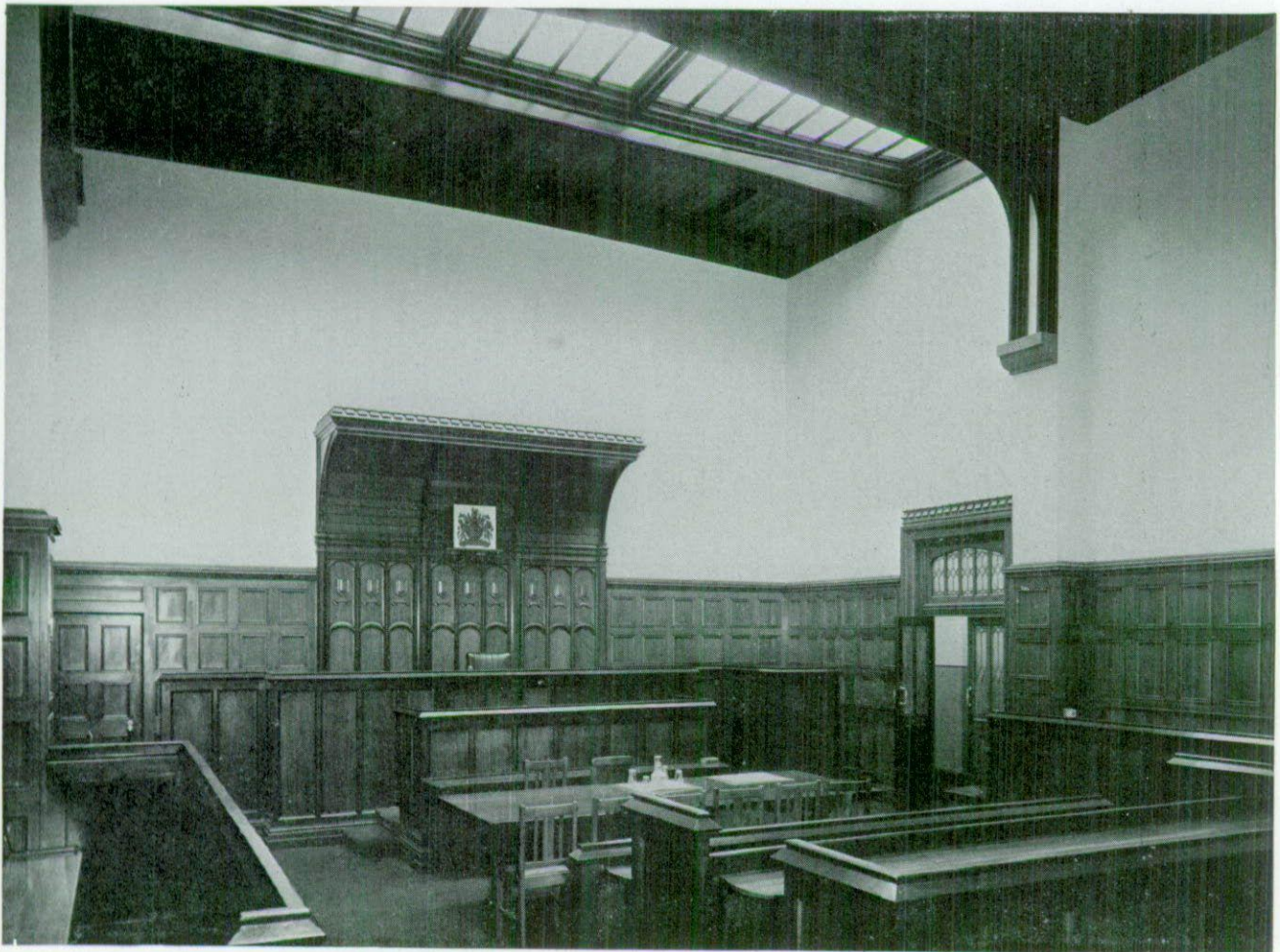
The seven courts within the building have been faithfully returned to their original condition in almost every respect.

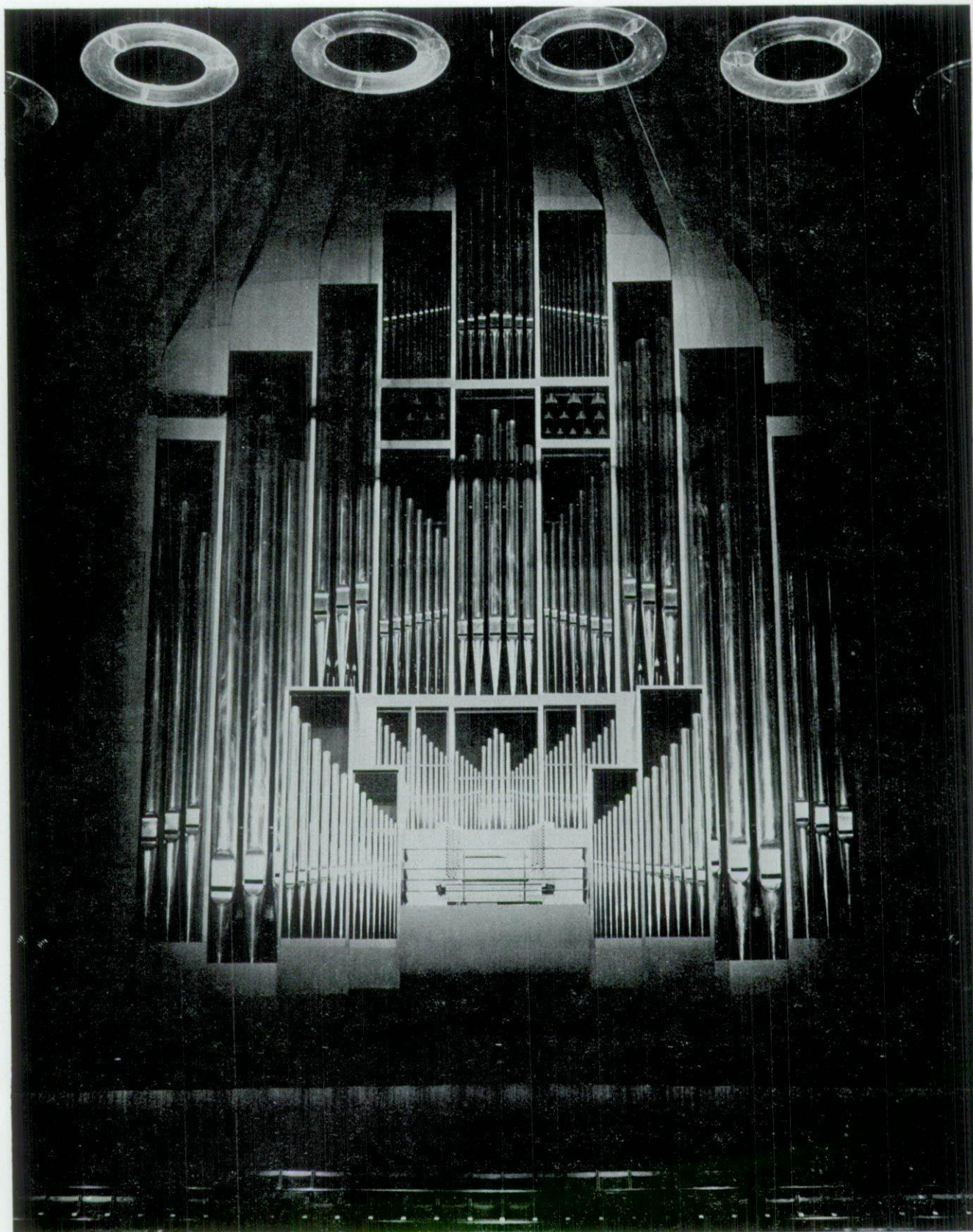
A team of specialist tradesmen, including stonemasons, joiners, french polishers, decorative painters and carpenters, worked on the restoration, some employing the traditional methods used by craftsmen in the early days of the colony.

Perhaps the most interesting feature of the project was the restoration of the Greenway spiral staircase and the stairwell. Layers of paint were scraped away to reveal the original pattern and colours decorating the walls. Two decorative painters worked on scaffolding high above the stairwell to reproduce the original pink and yellow decorative scheme.

The restoration of the old Supreme Court forms part of an overall renewal programme in the Queen's Square precinct, including the Hyde Park Barracks and the old Mint Building.

Restored court room, Supreme Court.





Sydney Opera House organ.

Regional Art Galleries

A feasibility study for a \$1 million Regional Art Gallery in Armidale was completed. The project was unusual in character in that it was undertaken as a paid commission for a private authority—the New England Regional Art Museum Association.

A feasibility study was also undertaken in the conversion of the House of Margo Lewers at Emu Plains into a Regional Art Gallery.

An air conditioning system was installed in the Norman Lindsay Museum at Springwood, and an extensive maintenance programme supervised on behalf of the National Trust of Australia (New South Wales).

Sydney Opera House

The Sydney Opera House pipe organ was completed and handed over to the Sydney Opera House Trust by the Minister for Public Works on 30th May, 1979. The inaugural concert was held on 7th June, 1979.

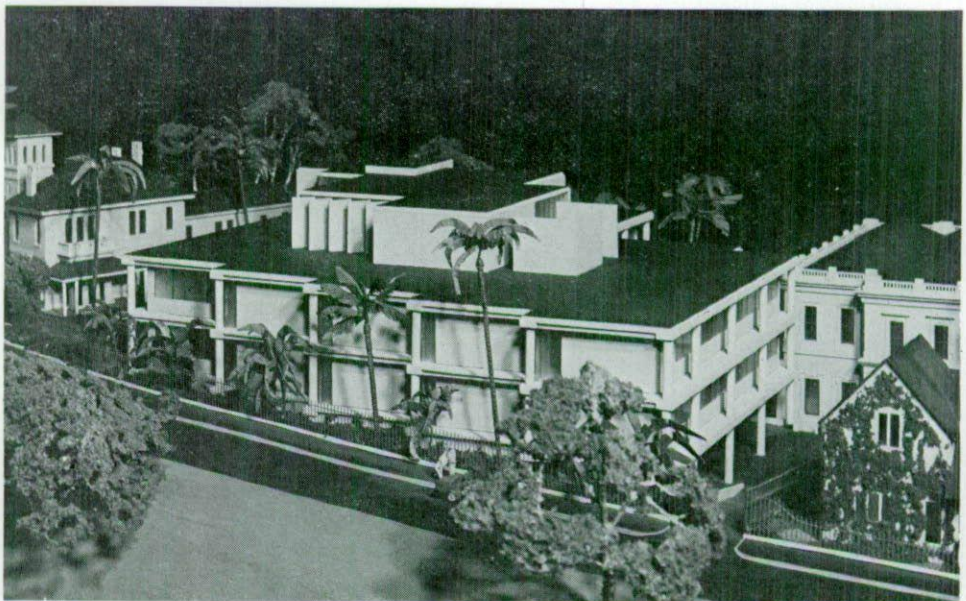
Taronga Zoo

Taronga Zoo is to have a unique chimpanzee exhibit which will give the animals a far greater freedom in a natural living area as well as improving viewing for visitors. The exhibit will feature a large animal adventure playground surrounded by a moat, rock ledges and a running stream with a small waterfall. The exhibit will be the only one of its kind in a public zoo in the world to feature a colony of chimpanzees in a large natural area.

Fish Marketing Authority

Planning was undertaken on a new auction hall, fish cleaning hall and amenities for the Sydney Fish Marketing Authority at Blackwattle Bay. The estimated cost is \$500,000.

Model of National Herbarium.



Tertiary Education

The main accent in the area of tertiary education continues to be in the field of providing architectural and engineering services for technical colleges. In particular, construction was undertaken on five major technical college projects as detailed hereunder:

Hornsby Technical College

A contract worth almost \$1.8 million was let for the second stage of development of the Hornsby Technical College providing for the construction of—

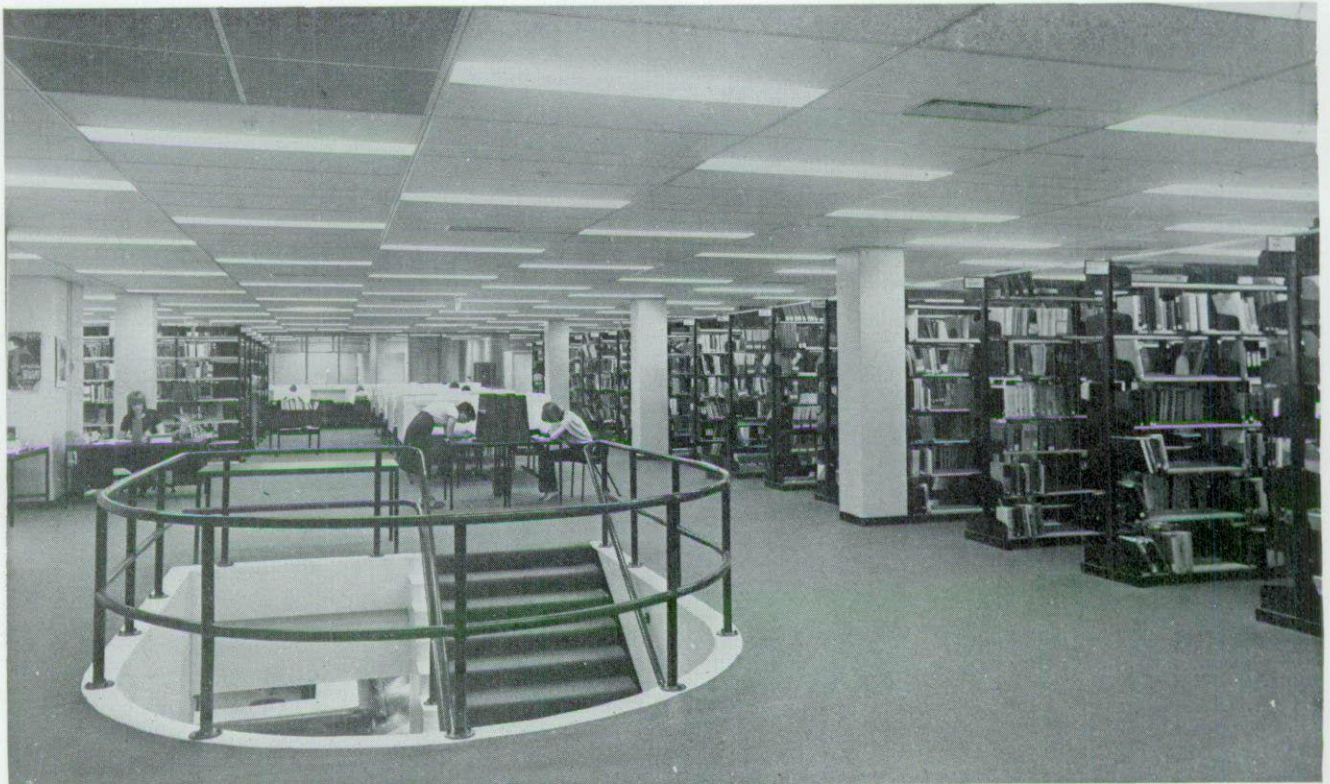
- A two storey union building containing student amenities and counselling facilities, constructed as an extension to the present college;
- A three storey trade block providing facilities for tuition in automotive engineering and the electrical trades. The block also includes the provision of six additional classrooms for the college.

The amenities within the union building, including canteen facilities, two students lounges and a multi-purpose lounge and dining area have been designed so that they can be opened up and used as a function area for displays and theatrical presentations. These areas will also be available to the local community. A landscaped, sunken courtyard is designed for eating and outdoor meetings.

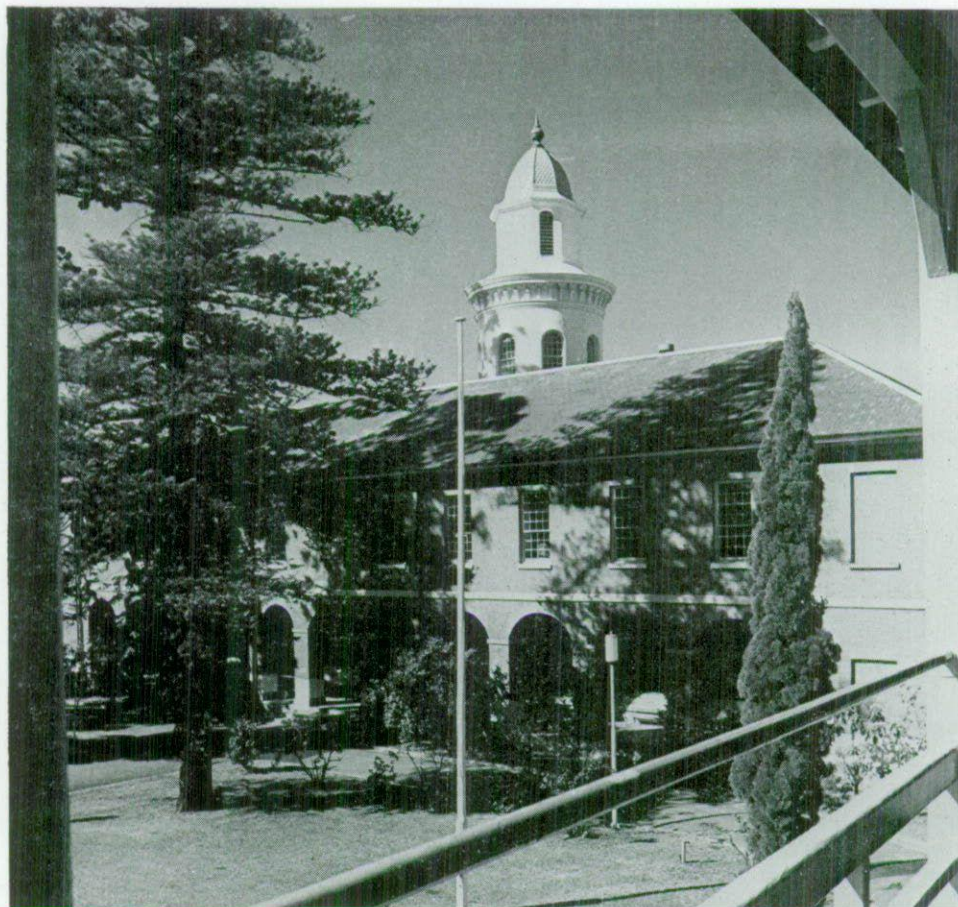
The new trade block is being constructed on a steeply sloping and heavily forested site fronting the Pacific Highway.

The project will increase the student capacity of the college to up to 800 students, day and night.

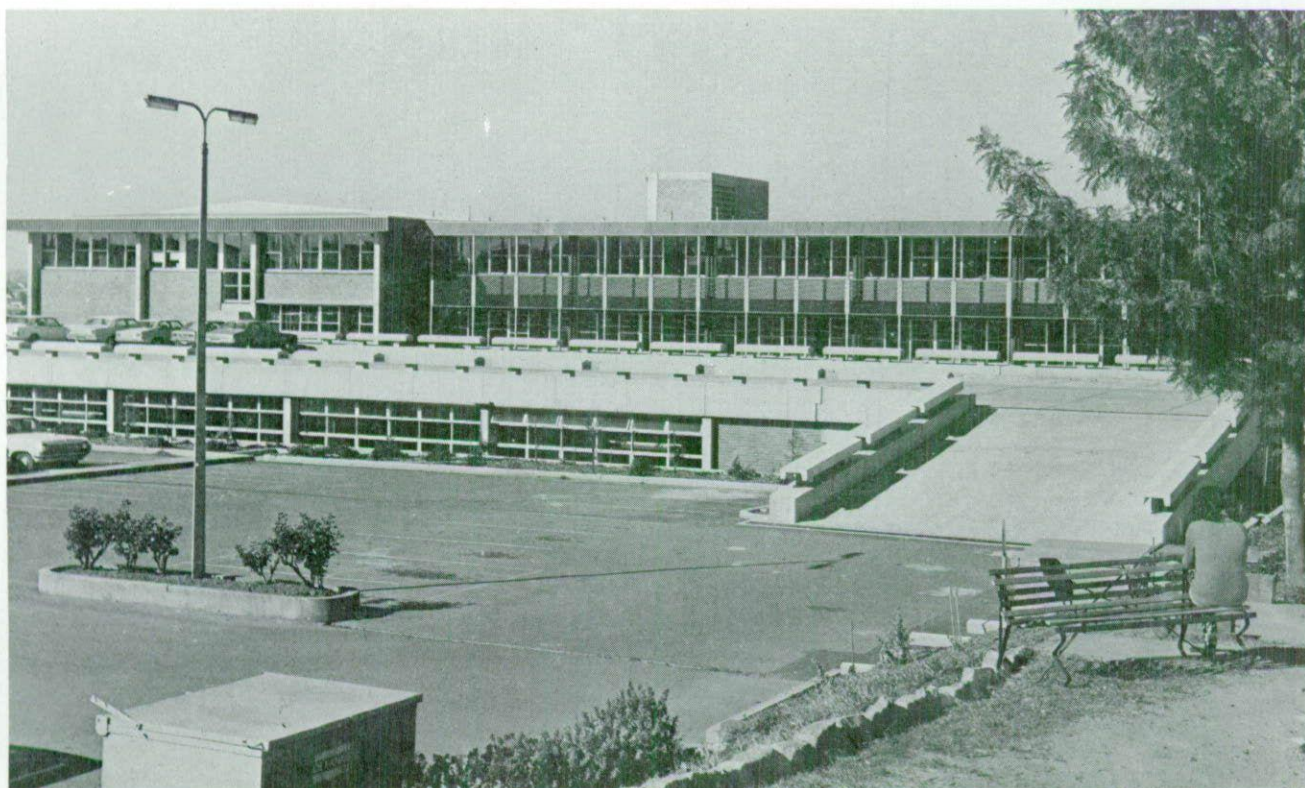
Library at the Cumberland College of Health Sciences.



Liverpool Technical College,
after restoration.



Below: Granville Technical
College, Workshop Block.



Campbelltown Technical College

Facilities for technical and further education for the rapidly expanding Campbelltown area are being provided in a new college under construction on a 23 hectare site overlooking the proposed Campbelltown City Centre. When completed early in 1980, the first stage of development will have cost about \$4 million. An intake of 2 000 students is anticipated.

The first stage contains three blocks linked by a covered pedestrian street. The largest of the three blocks contains workshops, lecture rooms and administrative facilities for the schools of automotive engineering, and the building and engineering trades. The second block, of two levels is designed for tuition in fashion, commerce and secretarial studies, as well as providing the college administrative unit and library.

A single storey amenities block contains a dining room, kitchen, lounges, a special functions area, a student counselling unit, a first-aid room and change rooms. This block is intended to be the focal point of the college and has been designed to allow for future expansion and possible community use.

Glendale Technical College

This major project is being constructed on a 9 hectare site in Fredrick Street, Glendale. The first stage consists of 10 separate buildings including six double storey blocks. These will accommodate automotive engineering and panel-beating, fitting, machinery, welding, secretarial studies, home science, business and administrative studies, general studies, a fashion lecture block, the college administrative unit and a learning resource centre.

Four single storey blocks will accommodate boiler making, vehicle spray painting and provide for student and staff amenities.

The college will have places for more than 900 students and is being built at a cost of \$6.6 million.

Padstow Technical College

Padstow Technical College, under construction on a six hectare site to the west of Padstow railway station will have the State's largest school of automotive engineering, with workshop facilities for up to 250 students.

The School of Horticulture, forming part of the college complex, is the first to be included in a multi-discipline technical college in New South Wales.

Other facilities to be provided include home science, fashion and secretarial studies.

The college comprises one two storey and five single storey buildings all linked by a series of courtyards and covered walkways.

The School of Horticulture is planned to provide plant and soil laboratories, lecture and drawing rooms and a shed for farm machinery and potting. A 2.5 hectare agriculture plot, two glasshouses and small irrigation dam will also be provided for the use of the 400 horticulture students who will make use of the college.

The ultimate student capacity will be for up to 2 000 persons, with 700 attending at any one time.

Mt Druitt Technical College

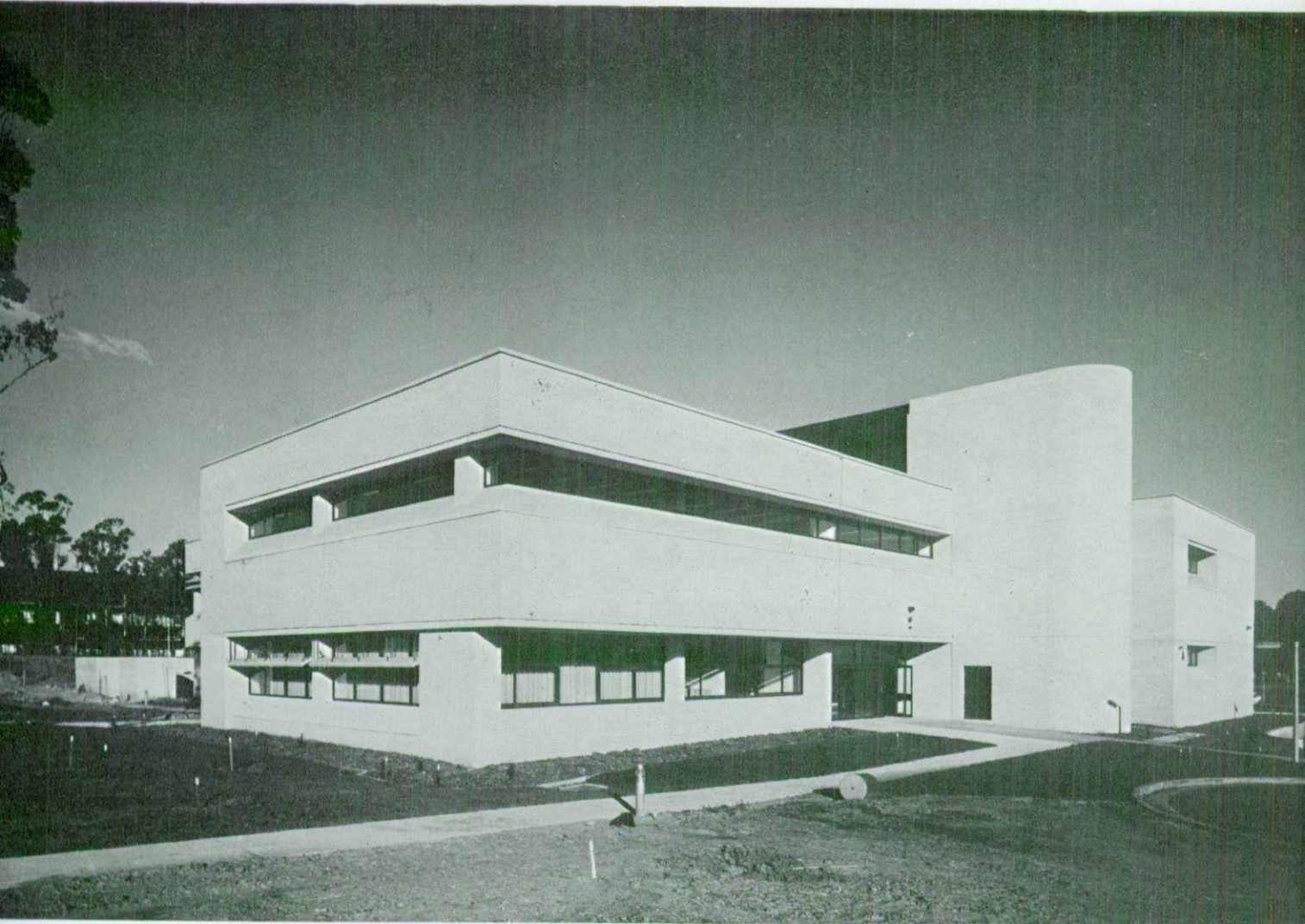
A \$4.5 million expansion programme for the Mt Druitt Technical College will double the range of technical and further education programmes available to people living in Sydney's western corridor.

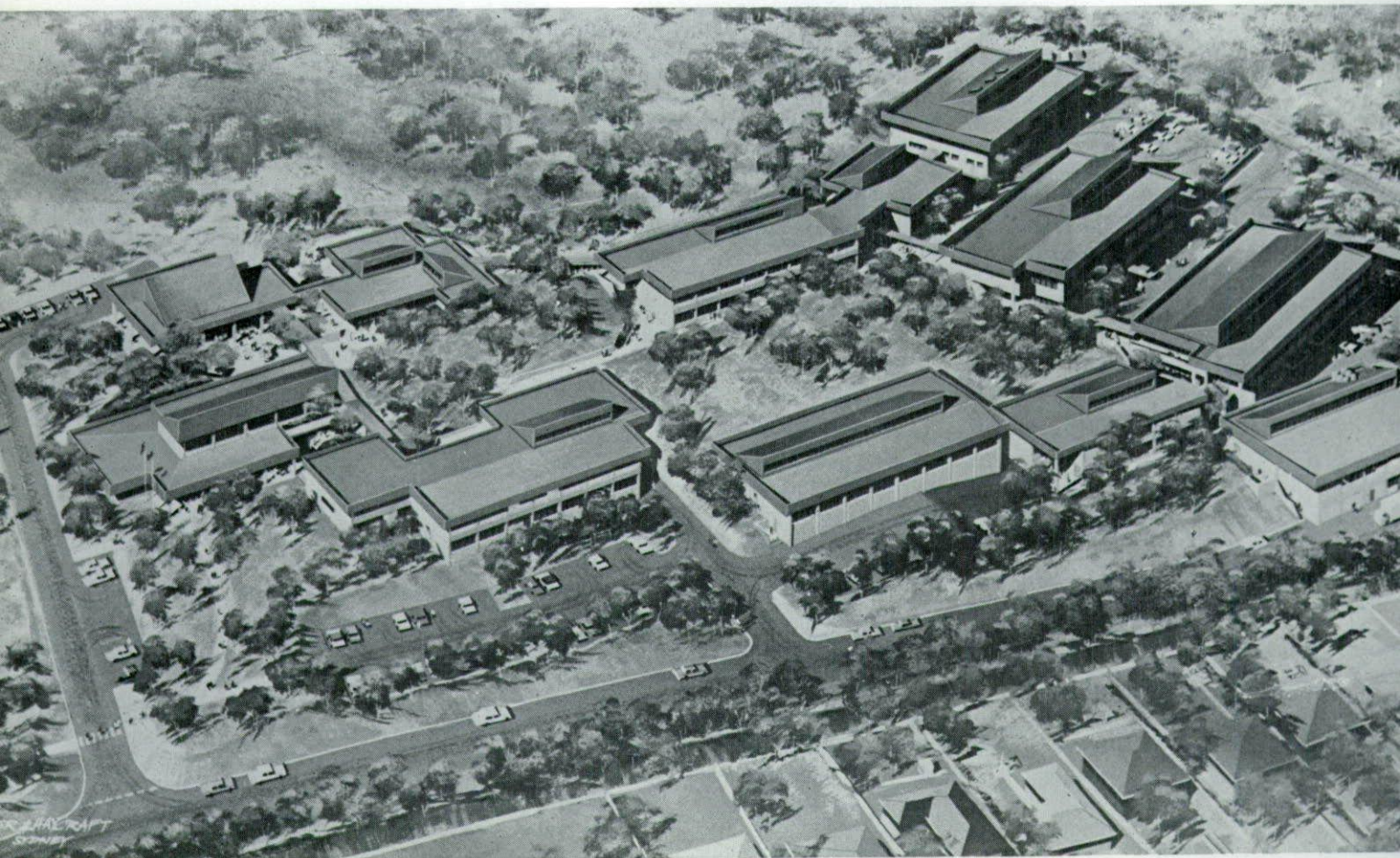
Women students will benefit particularly from the additions to the college in that courses and subjects such as secretarial studies, fashion, home science, and ceramics will be introduced. The completion of the new stage of development will allow for up to 4 000 day and evening students to be enrolled at the college.

The construction of three double storey teaching blocks will allow the establishment of courses in automotive engineering, fitting and machinery, welding, vehicle spray painting and panel-beating.

The schools of automotive engineering, engineering trades and vehicle trades will include large workshop areas, lecture rooms, student and staff common rooms, and change rooms. The School of Art and Design will have a ceramics studio, a clay store, a kiln and an outer work area. An outdoor sculpture courtyard will be provided for work and display purposes.

Mount Druitt Technical College.





Artist's impression of Glendale Technical College.

Engineering Division

The Engineering Division is responsible for the design and construction of engineering and allied services in public buildings throughout the State and, to this end, possesses a staff comprising engineers, engineering assistants, engineering trainees, technical officers, tracers, inspectors and supporting administrative and clerical staff.

Throughout the year, although economic restrictions still prevailed, the Division continued to be fully occupied in investigations, planning, designing and supervision of the extensive range of electrical and mechanical works involved in the building programmes of the Branch.

These works embrace air conditioning, refrigeration, ventilation, central heating, sterilization, light, power and lift services, electronics, communications, X-ray and electromedical equipment, civil engineering works related to architectural projects, together with a wide variety of miscellaneous engineering applications of varying degrees of size, complexity and cost.

As in previous years, a very substantial amount of engineering work not directly associated with building programmes, was carried out by the Division. This comprises new installations and services in existing buildings, augmentation and replacement of established installations, machinery and equipment, and the provision of engineering facilities generally to meet the growing demands of the many government authorities and instrumentalities. The major activities in this regard were in lighting, airconditioning, heating, communications, X-ray equipment, lifts, laundry, laundry machinery and boiler stations.

Building Construction and Maintenance

General

The Building Construction and Maintenance Branch of the Public Works Department is a building organization set up to maintain in good order and condition the vast network of public buildings spread throughout the length and breadth of New South Wales. The Branch also undertakes a good deal of new building construction work, and is staffed by qualified tradesmen skilled in all aspects of the building industry.

Area Office/Depots are strategically located throughout the State to provide an efficient service of maintenance, repair, renovation and construction for government departments and authorities.

Finance

The total expenditure on the construction, alteration, remodelling and maintenance of schools, public buildings and other institutions was \$70.7 million, of which \$37.3 million was spent in the metropolitan area and \$33.4 million in the country.

A dissection of expenditure over the last year and the two preceding years is set out below—

Metropolitan Expenditure

	1976-7	1977-8	1978-9
	\$	\$	\$
Revenue Vote Public Buildings ..	4,464,273	7,759,288	6,513,130
Loan Vote Public Buildings	1,812,415	2,321,457	2,632,507
Education Department—Revenue ..	8,501,657	6,747,307	7,994,658
Education Department—Loans ..	7,315,827	16,025,103	15,017,090
Health Commission	1,148,390	1,045,088	1,185,364
Technical and Further Education ..	....	889,995	1,440,353
Youth and Community Services ..	....	966,418	635,638
Other Departments	5,752,703	1,676,410	1,704,112
	<u>\$28,995,265</u>	<u>\$37,431,066</u>	<u>\$37,329,832</u>

Country Expenditure

	1976-7	1977-8	1978-9
	\$	\$	\$
Revenue Vote Public Buildings ..	5,412,551	4,942,761	4,923,275
Loan Vote Public Buildings	1,016,820	1,320,282	1,319,705
Education Department—Revenue ..	10,306,873	8,743,356	9,391,954
Education Department—Loans ..	4,788,852	9,749,679	10,174,681
Health Commission	912,084	1,163,558	1,507,470
Technical and Further Education ..	....	2,258,620	2,439,347
Youth and Community Services ..	....	262,428	214,101
Other Departments	3,652,923	2,698,432	3,419,833
	<u>\$26,090,103</u>	<u>\$31,139,116</u>	<u>\$33,390,366</u>

Education Department—Revenue Vote

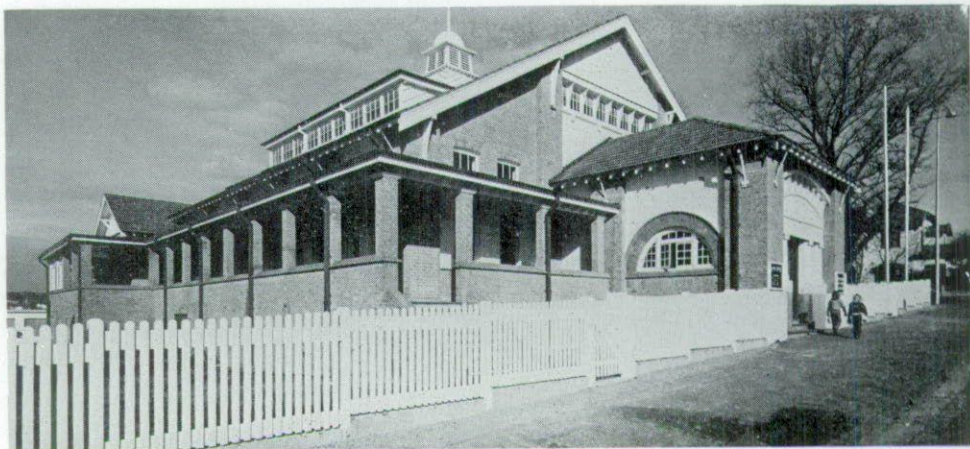
The Building Construction and Maintenance Branch carried out maintenance work on schools and school properties in the metropolitan area to the value of \$7,994,658.

Funds for this work were provided by the Education Department and works were carried out to a programme agreed to by officers of that Department and this Branch.

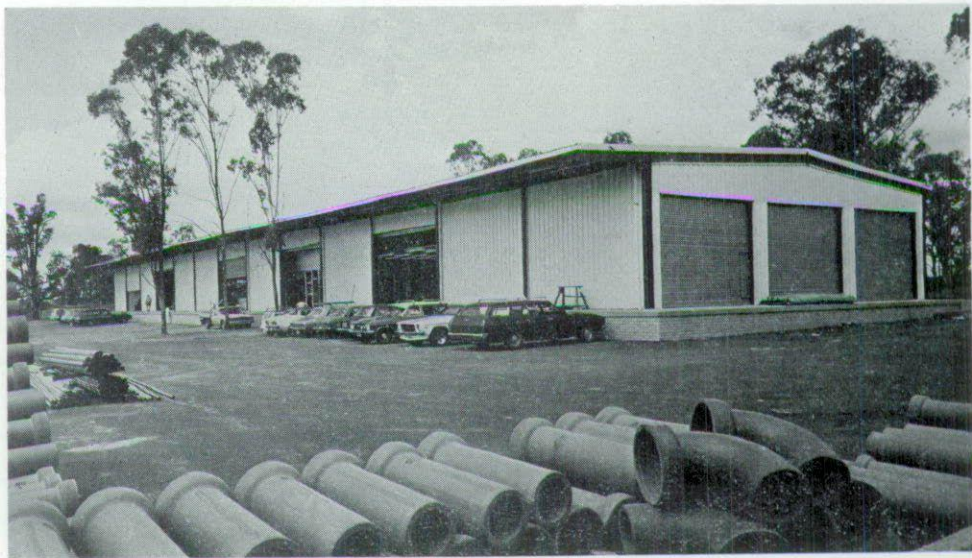
These funds were made available under the following allocations:

	\$
Liverpool Area	1,868,430
Central Metropolitan Area	1,729,916
North Sydney Area	1,666,776
St George Area	1,138,743
Metropolitan West Area	1,590,793
	<hr/>
	\$7,994,658

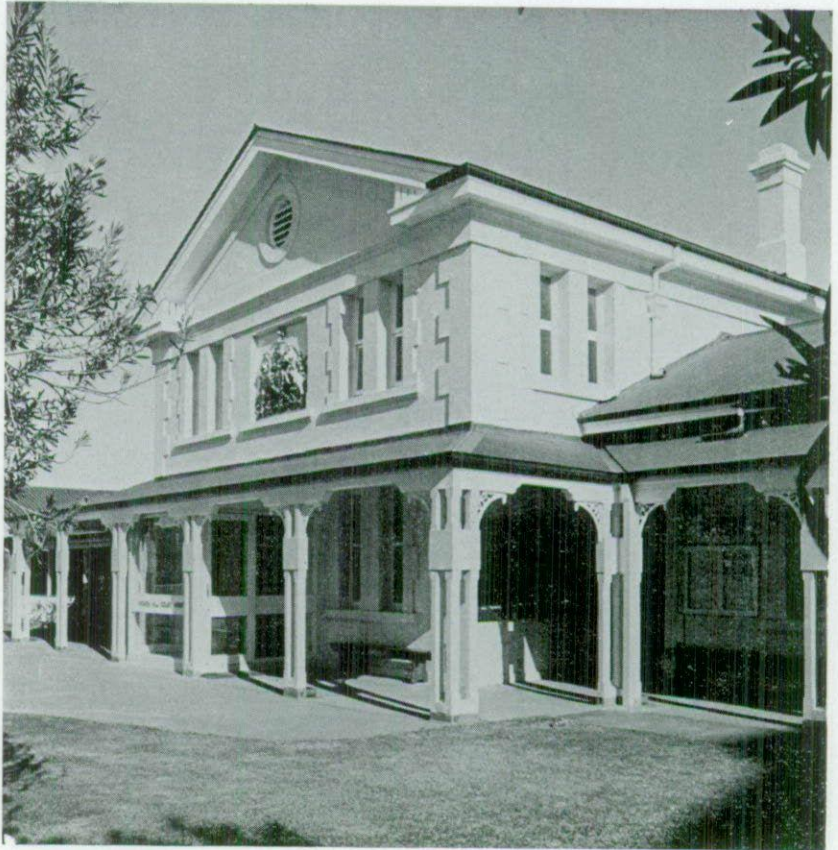
Orange Land Board Office, after restoration.



Workshop block at new B.C. & M. depot at Blacktown.



Broken Hill
Court House
restoration.



Binishell at Hurstville Boys' High School.



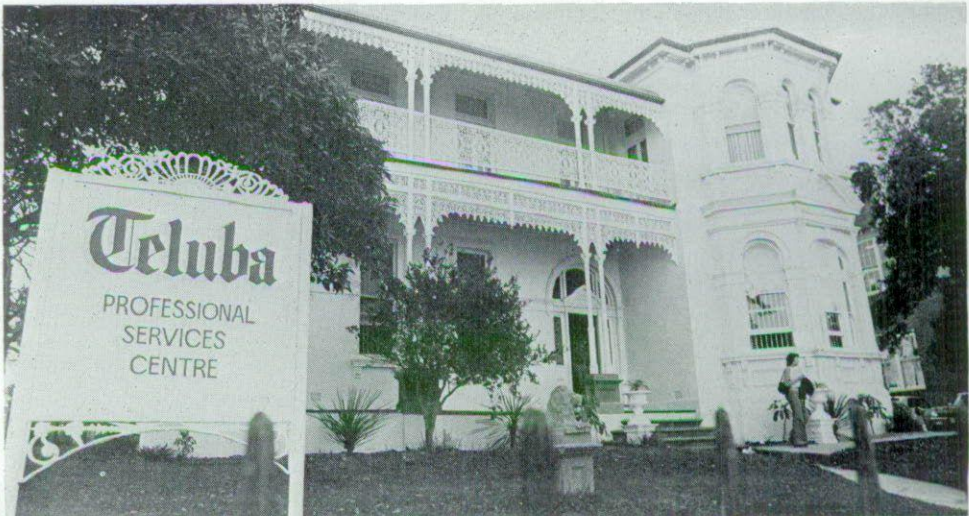
Education Department—Loan Vote

In addition, the Department carried out major loan works such as construction of libraries, toilet blocks, transfer of buildings, additional accommodation, demountable accommodation, updating of electrical installations and major renovations to the Education Head Office.

The larger works of this nature were—

	\$
Badgally Public School	184,235
Bennett Road Public School	165,127
Bourke Street Public School	172,090
Brighton-Le-Sands Public School	238,465
Burwood Public School	633,769
Campsie Public School	170,616
Caringbah North Public School	167,826
Eastlakes Public School	409,290
Eastwood Public School	112,163
Gladesville Public School	121,110
Glebe High School	369,909
Granville Public School	262,590
Hurlstone Agricultural High School	353,444
Hurstville Boys' High School	226,689
Jannali Girls' High School	225,263
Killarney Vale Public School	314,866
Leura Public School	164,379
Moorefield Girls' High School	101,483
Narwee Boys' High School	100,623
Newtown Infants' School	131,635
Plunkett Street Public School	102,921
Randwick Boys' High School	132,066
Shalvey High School	315,530
Sir Joseph Banks High School	352,366
Waterloo Demountable High School	235,565
Wilkins Demountable High School, Marrickville	356,924
Winston Heights Public School	154,894
Woollahra Demonstration School	134,904
Metropolitan West Demountable Schools	666,289
St George Demountable Schools	232,513
Metropolitan North Demountable Schools	441,189
Liverpool Demountable Schools	389,004
Metropolitan Central Demountable Schools	297,198

“Teluba”, Professional Services Centre, Education Department.





Walgett Court House, after restoration.

Revenue Vote Public Buildings

The expenditure of \$6,513,130 was incurred on the maintenance of and alterations to public buildings in the metropolitan area.

Some of the more important areas of work were—

							\$
Police Stations	..	..	..	..	..	..	1,800,000
Courts	..	..	..	..	..	..	950,000
Corrective Services	..	..	..	..	..	..	450,000
Parliament House	..	..	..	..	..	..	161,000
Mint Building	..	..	..	..	..	..	160,000
Australian Museum	..	..	..	..	..	..	220,000
Government Stores	..	..	..	..	..	..	150,000
Museum of Applied Arts and Sciences	..	..	..	..	..	..	150,000
Lands Department	..	..	..	..	..	..	440,000
Art Gallery	..	..	..	..	..	..	90,000
Botanical Gardens	..	..	..	..	..	..	200,000
New South Wales Library	..	..	..	..	..	..	150,000
Government Printing Office	..	..	..	..	..	..	100,000
Government House	..	..	..	..	..	..	215,000
State Office Block	..	..	..	..	..	..	180,000
Goodsell Building	..	..	..	..	..	..	60,000

Loan Vote Public Buildings

The expenditure on this vote was \$2,632,507, the main works being—

							\$
State Penitentiary	..	..	..	..	..	..	197,779
Blacktown Depot	..	..	..	..	..	..	688,401
Mt Penang Training Centre	..	..	..	..	..	..	173,921
Parramatta Girls' Training Centre	..	..	..	..	..	..	139,320
Supreme Court	..	..	..	..	..	..	420,709

Health Commission of New South Wales

An expenditure of \$1,185,364 was incurred on Loan and Revenue Vote works at various hospitals in the metropolitan area. Some of the works involved were—

							\$
Rachel Forster	..	..	..	..	..	..	68,552
St Vincents	..	..	..	..	..	..	92,856
H. C. Arncliffe (Community Health Centre)	..	..	..	..	..	..	32,361
Garrawarra	..	..	..	..	..	..	28,183

General

In addition, an amount of \$3,987,083 was spent on behalf of various client departments which included Youth and Community Services (\$635,638), Technical and Further Education (\$1,440,353).

Pest Control

Officers stationed in the Metropolitan Area made eight country visits during the year, and a total of 732 pest infestations in Government owned and rented premises in the Metropolitan, Port Kembla, Goulburn and Orange areas were treated.

Treatment with a residual soil poison to the sub-flood areas of existing building totalled 139.

Pre-treatment of foundations of new buildings continued and 37 new projects were completed.

Country Areas

Education Department Revenue Vote

An amount of \$9,391,954 was expended on the maintenance of school buildings in country areas on behalf of the Education Department, the more important projects being—

							\$
Wellington Public School	..	..	..	..	..	..	104,825
Maitland High School	..	..	..	..	..	..	30,013
Nowra Public School	..	..	..	..	..	..	34,533
Bowral High School	..	..	..	..	..	..	25,032
Warilla Public School	..	..	..	..	..	..	27,900
Nundle Central School	..	..	..	..	..	..	33,201
Tamworth South Public School	..	..	..	..	..	..	27,624
Gunnedah High School	..	..	..	..	..	..	33,430
Young High School	..	..	..	..	..	..	22,827
Goulburn Public School	..	..	..	..	..	..	45,657
Queanbeyan Public School	..	..	..	..	..	..	30,857

Education Department Loan Vote—Country Areas

An expenditure of \$10,174,681 was incurred. Some of the larger works were—

	\$
Bungendore Public School	198,200
Crescent School for Special Purposes	200,012
Murrumburrah Public School	153,468
Sutton Public School	168,923
Fairy Meadow Demonstration School	155,200
Bletchington Public School	132,092
Orange East Public School	162,033
South West Rocks Public School	150,000
Wauchope Public School	204,759
Broken Hill High School	299,048
Kurri Kurri High School	462,532
Telarah Public School	118,382
Farrer High School	102,451
Gunnedah South Public School	103,290
Moree East Public School	113,006
Walcha Central Public School	119,065
Warialda Public School	204,966
Albury North High School	104,629
E. A. Southee Public School	354,404
The Rock Central School	101,146

Revenue Vote Public Buildings—Country Areas

An expenditure of \$4,923,275 was incurred on the maintenance and alterations to public buildings in country areas, including the following:

	\$
Wagga Police Station	121,031

Loan Vote Public Buildings—Country Areas

The expenditure on this vote was \$1,319,705 including:

	\$
Orange Land Board Office	236,089
Ballina Police Station	150,000
Iluka Police Station	187,900
Walgett Court House	108,880
Boggabri Police Station	109,731

Technical and Further Education—Country Areas

An amount of \$2,439,347 was expended in Country Areas, mainly on technical colleges at the following locations:

	\$
Argyle Technical College, Goulburn	937,707
Newcastle Technical College	186,441

General

An amount of \$1,507,470 was spent on Loan and Revenue Vote works in country areas. In addition, an amount of \$6,073,281 was spent on behalf of various client department which included Teacher Housing (\$876,716), Youth and Community Services (\$214,101) and The Board of Fire Commissioners (\$237,913).

Country Day Labour Staff

The day labour staff attached to country Building Construction and Maintenance Depots as at 30th June, 1979, was 937 compared with 969 at 30th June, 1978.

Metropolitan Day Labour Staff

The day labour staff in the Metropolitan area employed on 30th June, 1979, was 1 380 compared with 1 432 on 30th June, 1978.

Government Motor Services

Objective

The Government Motor Services operates as a trading undertaking with the objective of servicing, repairing and maintaining vehicles and other motorized machines owned by State Government departments.

Operations

The Government Motor Services have three workshops:

The Car and Truck Repair Shop where mechanical and electrical repairs are effected to cars, trucks, buses, tractors, launch engines, and where fitting and machining is undertaken.

The Cycle Repair Shop, where police motor cycles, outboard motors, lawnmowers and other light machines are repaired.

The Body Repair Shop where police patrol van bodies and trailers are built, alterations are made to standard motor bodies for specific purposes and repairs carried out to damaged vehicles covered by insurance.

The resources of the Motor Services were fully employed. Repairs carried out included engine overhauls, transmission overhauls, brake repairs, electrical and engine tune-up work, panelbeating, painting and upholstery work. Repairs were effected to police motor cycles, vehicles insured with the Government Insurance Office, motorized cultivators, rotary hoes, lawnmowers and outboard marine engines.

During the year, 621 new police vehicles were fitted with various forms of special equipment, while 1 398 police and other government motor vehicles were prepared for disposal. There were 61 police cycles fitted with radios, and 71 were prepared for disposal.

Some special assignments were for—

Police Department—

- Manufacture of police dog-training equipment.
- Fitting out vehicles for special purposes.

Department of Corrective Services—

- Survey and detailed report on prison workshop facilities and operations.

On-site servicing of motor vehicles continues to expand. Mechanics have been stationed at the Department's Building Construction and Maintenance Depots at St Peters and Blacktown, including two mechanics at Blacktown dealing with motor mowers.

Following upon a feasibility study, plans for a major workshop in the Auburn-Parramatta region have been set aside in favour of individual on-site type servicing. Similarly, plans for the development of a workshop at Carrington, Newcastle, have set aside following the analysis of a survey conducted throughout the Newcastle region and surrounding area.

Five tradesmen and apprentices attended the General Motors Holden and Ford training schools, while three fourth-year apprentices received specialised training at private firms. Two tradesmen were trained for an L.P. gas installers' licence.

Seven apprentices were inducted during the year, and a high standard has been achieved generally by apprentices in workshop progress and technical college progress.

The work experience programme continued, with 33 students from various metropolitan high schools participating. These included two girls.

Co-operation continued to be maintained with departments using the services and facilities of the Government Motor Services.

State Brickworks

Objectives

The production, manufacture, distribution and sale of all classes of bricks as a competitive undertaking.

Operations

The financial statement of the trading year 1978-9 revealed a net loss of \$897,758 after making adequate provision for all liabilities. This was an improvement of \$638,673 over the loss incurred during 1977-8.

The loss was the net result of a loss of \$767,521 incurred by the Homebush Works, a profit of \$326,511 from the Blacktown Works together with interest charges of \$456,748 in respect of repayable advances made by Treasury.

Bricks produced at Homebush increased from 20 190 683 in 1977-8 to 40 203 571 in 1978-9. Blacktown production for the year's operation was 17 246 346 in 1977-8 and 17 040 536 in 1978-9.

Homebush bricks were sold at an average price of \$135.74 per 1 000 and returned an amount of \$5,104,493. Blacktown sales were 17 534 642 bricks returning \$2,296,493, an average selling price of \$130.97.

Capital assets at Homebush as at 31st March, 1979, totalled \$4,039,149 and were financed by \$1,792,972 from Loan Funds and \$2,246,177 from the State Brickworks Working Account.

At 31st March, 1979, the personnel of the Homebush Works was 289 Ministerial employees together with 39 Public Service Board appointees. In addition, 41 contract carters and three owner-driven hired vehicles were employed.

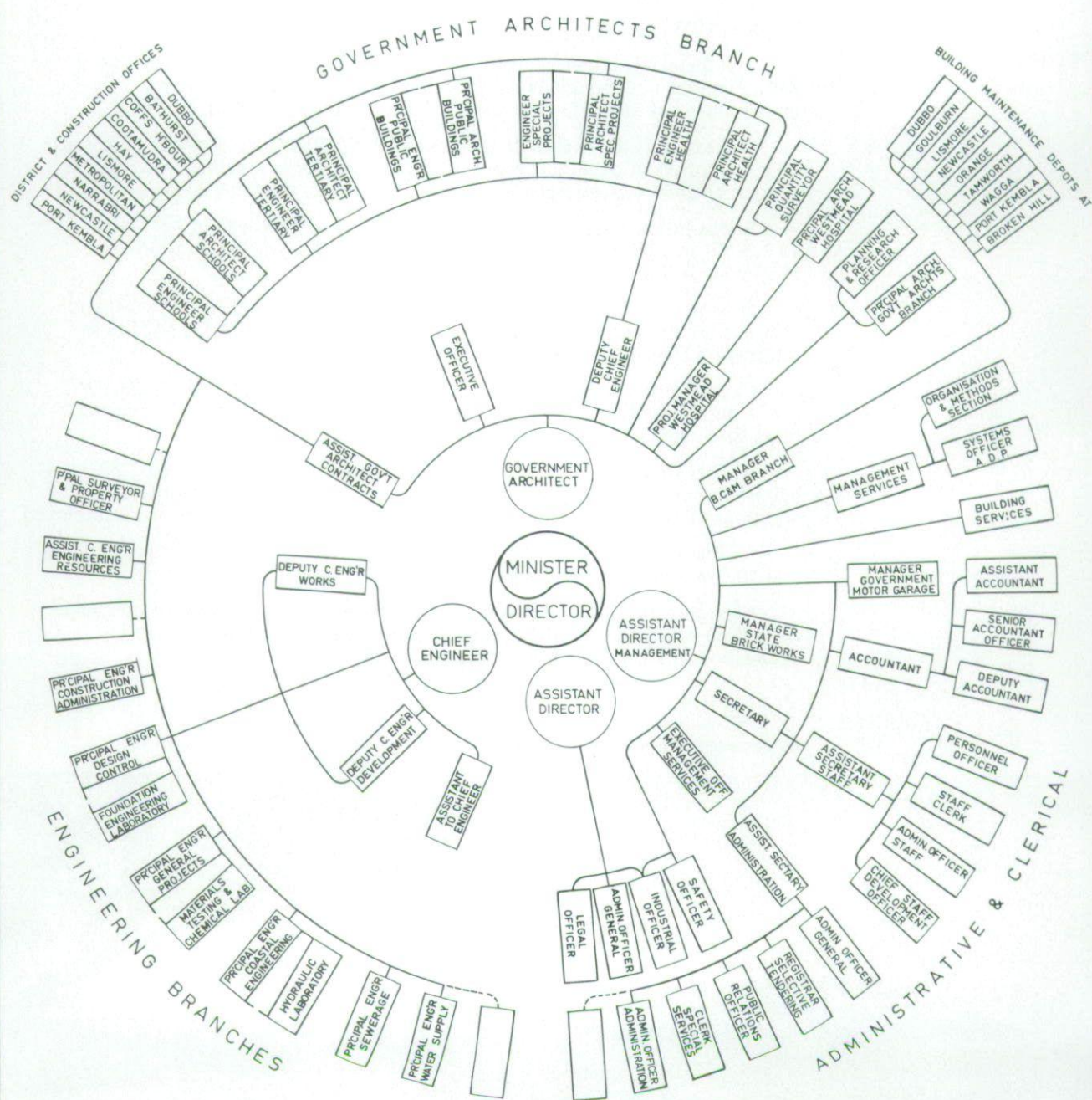
At Blacktown, 47 Ministerial employees, 8 Public Service Board appointees and 10 contract brick carters were employed.

Even though a trading loss was sustained, a significant recovery was made from the loss of the preceding year and there was a substantial upturn in production at the Homebush Works.

Port Stephens Fisheries Research Centre.



Public Works Department – Organization Chart



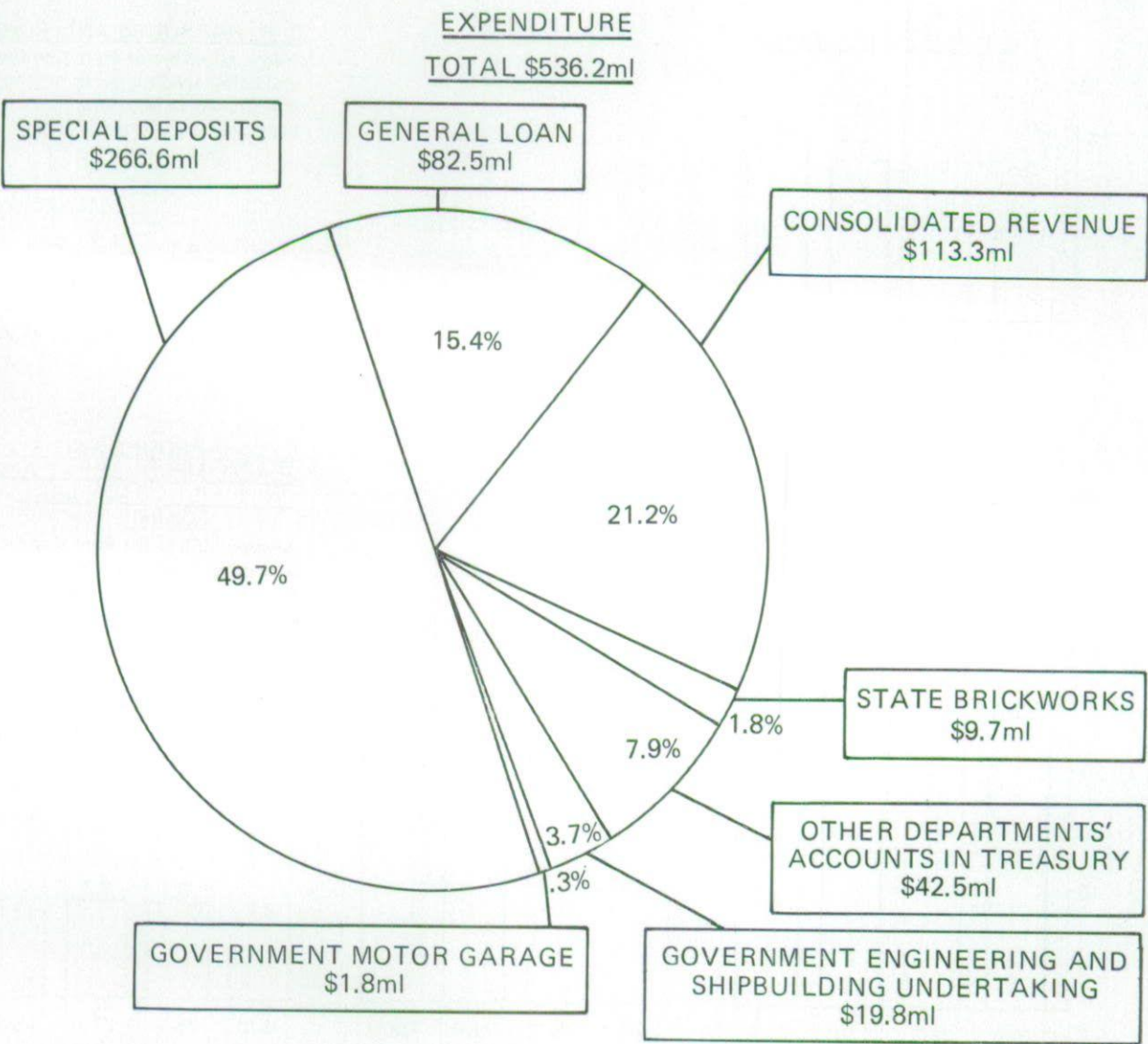
TRADING UNDERTAKINGS & STATUTORY BODIES UNDER ADMINISTRATION OF DEPARTMENT				
STATE DOCKYARD	BETHUNGA WATER SUPPLY	JUNEE WATER SUPPLY	BROKEN HILL	WATER BOARD
STATE BRICKWORKS	SOUTH WEST TABLELANDS WATER SUPPLY	DREDGE SERVICE	LEICHHARDT DEPOT	
STATE TILEWORKS	FISH RIVER WATER SUPPLY	DRAINAGE UNIONS	NO. 1 PLANT CONTROL	
GOVERNMENT MOTOR GARAGE	MULWALA WATER SUPPLY	TESTING BRANCH	BUILD. CONST. & MAINT. BRANCH	

Appendix I

Financial EXPENDITURE ON WORKS AND SERVICES

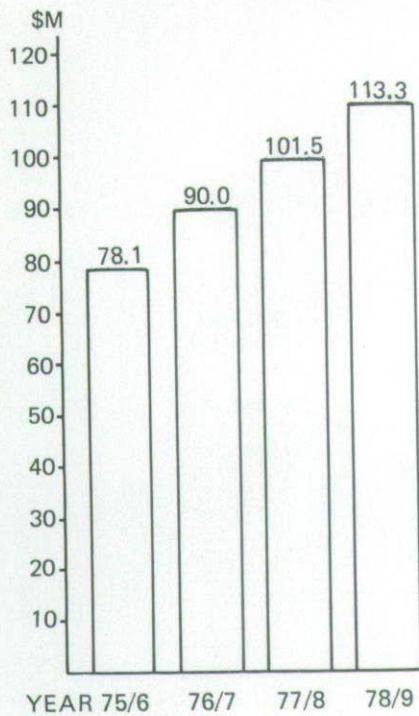
ARE SUMMARIZED AS FOLLOWS:

Consolidated Revenue	\$ 113,315,935
General Loan	82,468,000
Special Deposits Account—in respect of clients, Trading Undertakings and materials, equipment, etc., held for works and services	266,562,132
Expenditure on works and services charged direct to other departments' accounts at the Treasury	42,486,725
Government Engineering & Shipbuilding Undertaking	19,765,836
Government Motor Garage	1,858,451
State Brickworks	9,734,400
	\$ 536,191,479

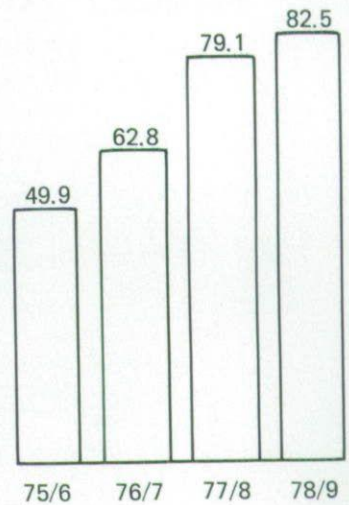


EXPENDITURE LAST FOUR YEARS

CONSOLIDATED REVENUE

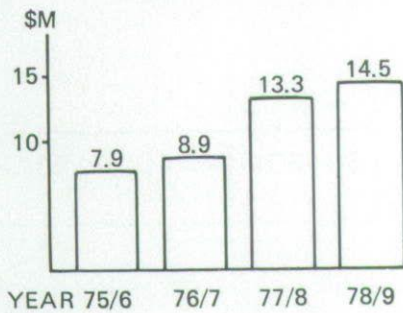


GENERAL LOAN (excludes capital advances to Water Boards in 1975-78)

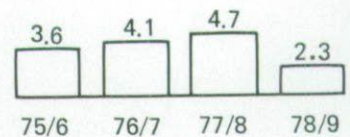


PRINCIPAL ITEMS OF EXPENDITURE ON CONSTRUCTION AND MAINTENANCE OF WORKS AND SERVICES

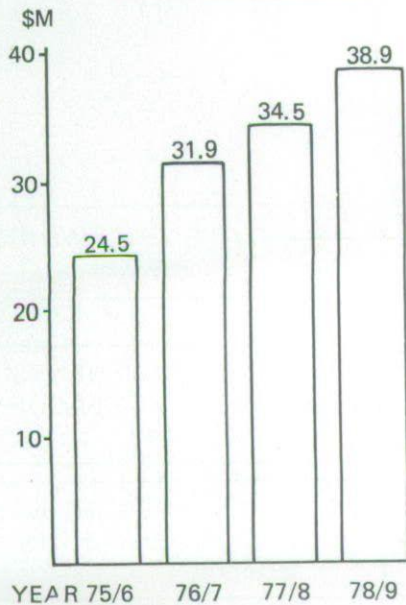
C. R. PUBLIC BUILDINGS



C. R. HARBOURS AND RIVERS (responsibility for Port Kembla and other trading ports transferred to Maritime Services Board from 1/7/78)



G. L. PUBLIC BUILDINGS

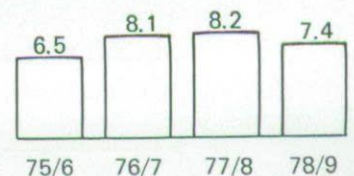


G. L. WATER SUPPLY AND SEWERAGE



G. L. HARBOURS AND RIVERS BEACH IMPROVEMENT AND CHIPPING NORTON LAKE SCHEME

(responsibility for Port Kembla and other trading ports transferred to Maritime Services Board from 1/7/78)



CONSOLIDATED REVENUE FUND
DETAILS OF EXPENDITURE AND RECEIPTS

	Expenditure	*Receipts
	\$	\$
Salaries and payments in the nature of salaries	34,498,390.63	....
Maintenance and working expenses other than salaries	5,007,759.11	....
Maintenance of Public Works and Services—		
Harbours and Rivers	2,296,929.16	....
Public Buildings	14,487,488.34	....
Water Supply, Sewerage and Stormwater Drainage	324,370.54	....
State Telephone Service	10,545,770.64	....
Electricity and Gas	15,775,041.04	....
Miscellaneous Works & Services not elsewhere included	4,265,797.76	....
Other Services—		
South West Tablelands Water Supply—estimated deficit on working	1,224,491.00	....
Leichhardt Workshops—care and custody of idle plant and stock	14,000.00	....
Grants to Municipal, Shire and County Councils for construction, repairs and renewal of works ..	334,610.00	....
Grants to Municipal and Shire Councils in respect of flood damage	12,437.00	....
Fees payable to consultants in respect of architectural works	7,200,000.00	....
Newcastle floating dock—crane and slipway—contribution towards maintenance	330,000.00	....
Departmental trainees fees, superann. etc.	2,251.00	....
Overseas visits	20,607.20	....
Timber Inspection Fees	15,419.28	....
National Public Works Conference—Contribution towards Secretarial costs and expenses	4,768.00	....
Subsidies to Water Boards in respect of rates written off	11,107,579.54	....
Opera House—Capital Works including payments to consultants, etc.	797,954.54	....
Advisory Committee on Safety of Dams	50,000.00	....
Provision Arrears Maintenance and Repairs to Schools, Police Stations, etc.	5,000,000.00	....
Revenue received and paid into Consolidated Revenue		
Repayments to previous years .. .. .	....	236,024.58
Cost of supervision .. .. .	....	802,473.49
Rent ex-land .. .. .	....	666,372.63
Oncost to cover design and supervision in connection with architectural works .. .. .	....	5,678,425.42
Commission to cover cost of collection of Premiums Group Assurance Schemes, etc. .. .. .	....	38,149.31
Employers Liability to the State Superannuation Fund—Contribution by the Department of Public Work—Trading Undertakings .. .. .	....	925,685.44
Unclassified receipts—rent for special port facilities, sale of plans, transfer of materials, etc. .. .. .	....	266,444.01
Profit on Sale of Government Property .. .. .	....	50,021.21
Sale of Government Property .. .. .	....	427,187.97
Transfers under section 31, Audit Act, 1902 .. .. .	....	9,493.53
Assisted Water Supply and Sewerage Schemes—Contribution towards Capital Charges .. .. .	....	5,858.00
Employers Liability to Superannuation—payments by Sundry Persons. .. .. .	....	1,541.22
Fees Part Time Members of Boards, Commissions, etc. .. .. .	....	3,469.98
	\$113,315,934.78	\$9,111,146.79

* Receipts are credited to the Consolidated Revenue Fund at the Treasury and are not available for direct expenditure by the Department.

GENERAL LOAN ACCOUNT
DETAILS OF EXPENDITURE AND REPAYMENTS

	Expenditure	*Unissuable
	\$	\$
Harbours and Rivers	5,928,178.07	1,233,806.16
Beach Protection and Improvements	1,000,000.00	....
Chipping Norton Lake Scheme	500,000.00	....
Water Supply and Sewerage	30,630,934.18	473,413.81
Capital Grants and Advances in respect of W.S. & S. Projects in Water Board areas	900,000.00	282,022.90
Public Buildings	38,947,487.00	1,805,623.08
Advances to Councils for Construction of Country Killing Centres .. .. .	....	66,074.99
Advances to Metropolitan W.S. & D.B. .. .. .	....	10,132,702.32
Advances to Hunter District Water Board .. .. .	....	782,599.28
Government Engineering & Shipbuilding Undertaking—New Floating Dock	4,294,400.75	....
Leichhardt Workshops .. .. .	....	1,469.56
Government Engineering & Shipbuilding Undertaking	117,000.00	....
State Brickworks	150,000.00	....
Government Motor Garage .. .. .	....	4,473.10
	\$82 468,000.00	\$14,782,185.20

* Unissuable—revenue which is not available for disposal by the Department and is returned to the Treasury.

SPECIAL DEPOSITS ACCOUNT

DETAILS OF EXPENDITURE AND RECEIPTS

	Balance at 1-7-78	Receipts	Expenditure	Balance at 30-6-79
	\$	\$	\$	\$
Mine Waste Pollution Abatement—Molonglo River	3,972.09	128,225.78	109,709.25	22,488.62
Public Buildings Generally—Construction, Re-construction, etc.	399,673.85	.....	399,600.00	73.85
Provision for Arrears of Maintenance	62,677.11	5,000,000.00	61,581.15	5,001,095.96
Beach Protection and Improvements	493,239.39	536,630.06	493,239.39	536,630.06
Special Project to Relieve Unemployment—Kandos Water Supply	108,142.21	.....	108,142.21	.....
South West Tablelands Water Supply Working Account	87,409.48	2,921,102.52	2,846,922.16	161,589.84
Unclaimed Salaries and Wages	20,032.74	156,111.12	157,787.74	18,356.12
Unclaimed Moneys Account	21,800.62	6,283.91	9,979.08	18,105.45
Bethungra Water Supply	7,048.74	1,165.50	5,544.70	2,669.54
Security Deposit Trust Account	245,862.81	165,351.64	165,885.35	245,329.10
Junee Water Supply—Renewal Reserve Account—CASH	17,774.02	25,692.33	3,130.90	40,335.45
Hawthorne Canal Improvements	4,000.00	.....	.....	4,000.00
Hunter Valley Flood Mitigation Account	133,674.30	1,190,331.51	1,277,190.06	46,815.75
Junee Water Supply—Renewal Reserve Account—SECURITIES	281,240.00	.....	.....	281,240.00
Compensation Deposits	707.18	7,115.16	190.41	7,631.93
South West Tablelands Water Supply—Renewal Reserve Account—CASH	169,033.99	124,609.29	97.80	293,545.48
Chipping Norton Lake Authority	401,704.53	715,347.77	748,718.35	368,333.95
Fish River Water Supply Scheme—Renewal Reserve Account—CASH	32,431.50	77,008.01	53,719.92	55,719.59
P.W.D. Testing Branch—Leave and Depreciation Reserve—Securities Account	14,800.00	60,000.00	.....	74,800.00
South West Tablelands Water Supply—Renewal Reserve Account—SECURITIES	1,346,080.00	.....	.....	1,346,080.00
Fish River Water Supply—Renewal Reserve Account—SECURITIES	468,984.80	.....	.....	468,984.80
P.W.D. Testing Branch Investment Account	42,000.00	.....	.....	42,000.00
Balance of Salaries Adjustments Suspense Account	803,150.14	880,520.00	803,150.14	880,520.00
Fish River Water Supply Scheme	14,544.80	80.00	2,976.23	11,648.57
Fish River Water Supply Working Account	571,665.91	1,474,776.88	1,363,848.63	682,594.16
Advances to Public Officers for purchase of Motor Cars	120,994.99 Dr.	64,397.01	21,224.39	77,822.37 Dr.
Dredge Service—Investment Account	200,000.00	.....	.....	200,000.00
Newcastle Graving Dock Construction Account	88,773.19	.....	17,695.80	71,077.39
Metric Conversion	73,546.52	.....	60,426.45	13,120.07
Dams Safety Committee Account .. .. .	.....	44,614.16	37,916.09	6,698.07
Public Works Department General Working Account—Branch and Local Office Working Accounts	14,380,707.00	368,569,297.19	358,865,483.81	24,084,520.38
—Water Supply Construction Accounts	1,703,265.71	28,114,787.58	30,081,037.92	262,984.63 Dr.
—Sewerage Construction Accounts	1,115,074.51	21,441,136.72	19,010,069.96	3,546,141.27
\$	23,192,022.15	431,704,584.14	*416,705,267.89	38,191,338.40

* Net expenditure \$266,562,131.89 after excluding \$123,793,450 in respect of transfers to other Departmental accounts and \$26,349,686 in water supply and sewerage construction accounts met from loan vote.

EXPENDITURE ON WORKS AND SERVICES
BROUGHT TO ACCOUNT DIRECT AGAINST
OTHER DEPARTMENTS' ACCOUNTS IN
TREASURY LEDGERS

	\$		\$
Treasury—Payments as Act of Grace	2,728.50	Treasury—Subsidies—Loans for other than Electricity Works	328,222.14
Treasury—Relief measures associated with Natural Disasters	740,644.01	Treasury—Cobar Water Supply—Subsidies	31,253.49
Treasury—Leave payments in respect of deceased Public Servants	90,232.57	Public Service Board—Fees/Costs Training Officers—Study Assistance Grant	5,539.75
Health Commission—Westmead Hospital Project	40,978,866.96	Public Service Board—Fees/Costs Training Officers—Contribution to part-time Scholarships	1,007.00
Treasury—Compensation for Injuries sustained on duty by departmental staff	81,800.00	Treasury—Fire Risk Account	582.60
Treasury—On cost Recovered in respect of officers on loan	418.55	Treasury—Commonwealth Special Youth Employment Training Programme State Participation	219,694.70
Treasury—Special Appropriation—New South Wales Retirement Benefits Act	5,734.71		\$ 42,486,724.98

CONSOLIDATED REVENUE: STATE GRANTS

GRANTS TO MUNICIPAL, SHIRE AND COUNTY COUNCILS FOR CONSTRUCTION, REPAIRS AND RENEWAL OF WORKS: GRANTS TO MUNICIPAL AND SHIRE COUNCILS IN RESPECT OF FLOOD DAMAGE.

	Construction, Repairs and Renewal of Works	Flood Damage		Construction, Repairs and Renewal of Works	Flood Damage
	\$	\$		\$	\$
City Councils Total	20,000.00	....	Shire Councils—		
County Councils Total	128,055.00	....	Bogan .. ..	....	513.00
Municipal Councils Total	28,000.00	2,462.00	Bourke	2,000.00	....
Shire Councils Total	158,555.00	9,975.00	Brewarrina	2,000.00	....
	\$ 334,610.00	12,437.00	Byron	2,000.00	....
City Councils—			Cabonne	2,000.00	....
Albury	2,000.00	....	Carrathool	1,500.00	....
Armidale	2,000.00	....	Central Darling .. ..	....	2,976.00
Blacktown	2,000.00	....	Colo	4,089.00	....
Blue Mountains	2,000.00	....	Cootamundra	2,000.00	....
Fairfield	2,000.00	....	Crookwell	1,100.00	....
Grafton	2,000.00	....	Dumaresq	930.00	....
Maitland	2,000.00	....	Gilgandra	2,000.00	....
Parramatta	2,000.00	....	Goobang	2,000.00	....
Penrith	2,000.00	....	Gundagai	2,000.00	....
Queanbeyan	2,000.00	....	Guyra	2,000.00	....
	\$ 20,000.00		Hastings	6,952.00	....
County Councils—			Hay	2,000.00	....
Clarence River	73,827.00	....	Hornsby	2,000.00	....
Richmond River	54,228.00	....	Hume	2,000.00	....
	\$ 128,055.00	....	Kempsey	47,422.00	....
Municipal Councils—			Kyogle	1,500.00	....
Ashfield	2,000.00	....	Leeton	2,000.00	....
Bega .. ..	....	2,462.00	Macleay	3,000.00	....
Canterbury	2,000.00	....	Mittagong	2,000.00	....
Cooma	2,000.00	....	Monaro	1,000.00	....
Deniliquin	2,000.00	....	Namoi	2,000.00	....
Forbes	2,000.00	....	Narrandera	2,000.00	....
Holroyd	2,000.00	....	Port Stephens	2,000.00	....
Hunters Hill	2,000.00	....	Shoalhaven	19,235.00	....
Lake Macquarie	2,000.00	....	Tenterfield	2,000.00	....
Mullumbimby	2,000.00	....	Tumut	2,000.00	....
Port Macquarie	2,000.00	....	Tweed	21,857.00	....
Quirindi	2,000.00	....	Ulmarra	2,000.00	....
Willoughby	2,000.00	....	Wakool	970.00	....
Windsor	2,000.00	....	Walcha	2,000.00	....
Yass	2,000.00	....	Weddin	2,000.00	....
	\$ 28,000.00	....	Wentworth .. ..	....	632.00
			Windouran	2,000.00	....
			Wollondilly	1,000.00	....
			Wyong .. ..	....	5,854.00
			Yallaro	2,000.00	....
				\$ 158,555.00	12,437.00

SOUTH WEST TABLELANDS WATER SUPPLY

INCOME AND EXPENDITURE ACCOUNT FOR YEAR ENDED 31ST DECEMBER, 1978

Previous Year	Expenditure		Previous Year	Income	
\$		\$	\$		\$
579,228	Salaries and Wages	644,991		Water Sales—	
71,169	Materials	82,629	900,860	Councils	1,059,468
455,060	Electricity	380,108	124,590	Others	117,483
37,943	Transport	30,391			
104,090	Miscellaneous	117,012	1,025,450		1,176,951
940,848	Interest, etc.	1,022,244	22,873	Miscellaneous	36,326
12,781	Renewal Reserve	13,253	1,293,246	Deficiency	1,224,491
140,450	Sinking Fund	147,140			
2,341,569		2,437,768	2,341,569		2,437,768

SOUTH WEST TABLELANDS WATER SUPPLY

BALANCE SHEET AS AT 31ST DECEMBER, 1978

Previous Year	Liabilities		Previous Year	Assets	
\$		\$	\$		\$
13,355,314	Capital debt	14,181,604	13,435,707	Reservoir main, etc.	14,326,923
1,412,843	Less repaid	1,559,983	106,194	Stores and Materials	129,902
			472,464	Sundry Debtors	487,634
11,942,471		12,621,621		Renewal Reserve Fund Investments—	
8,200	Demondrille Shire	8,200	1,346,080	S.W.T.W.S.	1,346,080
305,321	Sundry Creditors	350,152	281,240	June	281,240
359,000	Working Capital	560,000		Cash at Treasury—	
1,412,843	Sinking Fund	1,559,983	131,170	S.W.T.W.S.	233,390
1,765,537	Renewal Reserve	1,889,438	7,047	June	28,727
12,395	Plant Repairs	7,765	21,083	Treasury Deficiency Account	74,491
			4,782	Special Deposits Account	88,772
15,805,767		16,997,159	15,805,767		16,997,159

The volume of water supplied by S.W.T. Water Supply Scheme was 6 090 977 kilolitres in 1978 compared to 6 575 460 kilolitres in 1977. In 1978 the net deficiency on operations was \$1,224,491 as against \$1,293,246 in 1977.

FISH RIVER WATER SUPPLY

INCOME AND EXPENDITURE ACCOUNT FOR YEAR ENDED 31ST DECEMBER, 1978

Previous Year	Expenditure		Previous Year	Income	
\$		\$	\$		\$
202,225	Salaries and Wages	190,482		Water Sales—	
16,839	Stores Used	26,661	365,772	Blue Mountains Council	308,108
19,884	Transport	23,485	109,840	Lithgow City Council	
15,686	Plant Costs	9,178	86,591	Blaxland Shire Council	
10,929	Miscellaneous	17,795		Greater Lithgow City Council	199,382
10,130	Electricity	9,643	29,353	Oberon Shire Council	22,808
140,600	Renewal Reserve Contribution	140,600	636,480	Electricity Commission	660,912
4,000	Storm Damage Provision	4,000	16,596	Minor Consumers	17,764
13,639	Capital Rebates	13,639	7,118	Misc. Revenue	1,264
675,460	Interest Charges, etc.	704,680		Net Loss	37,225
105,900	Sinking Fund Payment	107,300			
36,458	Net Profit				
1,251,750		1,247,463	1,251,750		1,247,463

FISH RIVER WATER SUPPLY—continued

BALANCE SHEET AS AT 31ST DECEMBER, 1978

Previous Year	Liabilities		Previous Year	Assets	
\$		\$	\$		\$
	Capital Contributions—		12,577,131	Dams, Reservoir, etc.	12,656,976
1,431,486	Commonwealth Government	1,431,486	96,211	Plant	76,717
777,000	State Government	777,000	17,235	Stores and materials	21,159
	Greater Lithgow City Council	239,666	347,583	Sundry debtors	246,733
120,393	Blaxland Shire Council		14,545	Unexpended contributions	14,545
14,359	Oberon Shire Council	14,630	9,521	Cash at treasury	210,985
125,384	Lithgow City Council		641,076	Renewal reserve fund	801,237
				Safety footwear suspense	86
2,468,622		2,462,782			
9,104,457	Capital debt—Loan vote	9,077,150			
52,892	Employees' leave	52,761			
65,837	Storm damage reserve	69,817			
916,264	Sinking fund reserve	1,023,564			
641,076	Renewals reserve capital	801,237			
97,345	Adjustment reserve	103,184			
215,449	Sundry creditors	333,808			
	Accumulated funds—				
104,902	As at 1st January	141,360			
36,458	Profit/Loss for year	37,225			
141,360		104,135			
13,703,302		14,028,438	13,703,302		14,028,438

There was a loss on operations in 1978 of \$37,225 compared to a profit of \$36,458 in 1977.
The volume of water supplied in 1978 was 15 072 064 kilolitres.

MULWALA WATER SUPPLY

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST DECEMBER, 1978

Previous Year	Expenditure		Previous Year	Income	
\$		\$	\$		\$
35,877	Wages and salaries	37,978		Water sales—	
13,008	Stores used	16,428	28,297	Corowa Council	21,243
11,944	Electricity	11,570	1,555	Others	1,668
4,639	Miscellaneous	11,227			
			29,852		22,911
			35,616	Department of supply balance of costs	54,292
65,468		77,203	65,468		77,203

MULWALA WATER SUPPLY

BALANCE SHEET AS AT 31ST DECEMBER, 1978

Previous Year	Liabilities		Previous Year	Assets	
\$		\$	\$		\$
	Capital grants—		190,553	Reservoirs, Mains, etc.	190,553
132,436	Australian Government	132,436	6,314	Plant and equipment	10,291
58,117	State Government	58,117	24,676	Sundry debtors	31,317
190,553		190,553	2,001	Stores and materials	1,861
8,000	Working capital	8,000	10,234	Special deposits	
35,225	Sundry creditors	19,490			
	Special deposits	15,979			
233,778		234,022	233,778		234,022

The Mulwala Water Supply was constructed by the State on behalf of the Australian Government and the net cost of operation is met by the Commonwealth Department of Supply. The amount chargeable to that Department for 1978 was \$54,292 and 1 227 867 kilolitres of water were delivered during the year.

BETHUNGRA WATER SUPPLY

OPERATIONS FOR THE YEAR ENDED 31ST DECEMBER, 1978

Operations for the year 1978 resulted in a deficit of \$1,312, compared with a surplus of \$334 for the previous year. Net proceeds of operations are paid into consolidated revenue, and since the commencement of operations in 1917 the amount transferred is \$35,912. A further transfer in this respect will be made out of the 1974-8 surplus of \$4,653 when financial requirements to cover maintenance have been finalized.

No. 1 PLANT CONTROL

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 1979

Previous Year	Expenditure		Previous Year	Income	
\$		\$	\$		\$
441,751	Repairs and renewals	342,993	1,624,172	Hire, etc. charges	1,291,311
208,131	Insurance	242,907	193,040	Surplus on sale of plant	329,932
502,259	Depreciation	514,468			
214,777	Administrative salaries	203,393			
132,603	Interest charges, etc.	140,929			
48,944	Miscellaneous charges	46,988			
268,747	Net profit	129,565			
<u>\$1,817,212</u>		<u>\$1,621,243</u>	<u>\$1,817,212</u>		<u>\$1,621,243</u>

No. 1 PLANT CONTROL

BALANCE SHEET AS AT 31ST MARCH, 1979

Previous Year	Liabilities		Previous Year	Assets	
\$		\$	\$		\$
1,490,000	Capital debt	1,490,000	2,608,368	Plant and equipment	2,524,731
377,581	Less repaid	391,341	493,397	Sundry debtors	432,040
<u>1,112,419</u>		<u>1,098,659</u>	133,578	Cash at treasury	348,847
550,000	Working capital	550,000			
331,416	Sundry creditors	285,517			
	Accumulated funds—				
959,014	As at 1st April	1,241,508			
13,747	Adjustments	369			
268,747	Profit for year	129,565			
<u>1,241,508</u>	As at 31st March	<u>1,371,442</u>			
<u>\$3,235,343</u>		<u>\$3,305,618</u>	<u>\$3,235,343</u>		<u>\$3,305,618</u>

As at 31-3-79 plant owned and operated by the Department per medium of the No. 1 Plant Control Account had a depreciated value of \$2,524,731. Such plant is utilized on departmental construction and maintenance activities.

In 1978-9, a surplus on operations of \$129,565 was obtained, compared to a profit of \$268,747 in the previous year.

DREDGE SERVICE

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 30TH SEPTEMBER, 1978

Previous Year	Expenditure		Previous Year	Income	
\$		\$	\$		\$
196,866	Salaries, wages, etc.	80,112	693,088	Hire charges	234,331
60,465	Stores purchased	36,071	6,936	Misc. revenue	9,606
9,080	Miscellaneous charges	4,229	387,862	Net loss	241,911
7,201	Rental of berth, etc.	2,378			
123,000	Repairs and overhauls	93,576			
35,230	Depreciation	6,630			
12,880	Provision for losses and damage	1,902			
44,006	Employees leave	37,574			
37,891	Employers superannuation contribution	20,699			
840	Employer's contribution to N.S.W. retirement fund	3,054			
24,207	W.C.I. & P.R.T.	9,197			
60,672	Admin. charges	36,412			
197,066	Nett loss on disposal of vessel .. .. .	..		
278,482	Interest charges	154,014			
<u>\$1,087,886</u>		<u>\$485,848</u>	<u>\$1,087,886</u>		<u>\$485,848</u>

DREDGE SERVICE—continued

BALANCE SHEET AS AT 30TH SEPTEMBER, 1978

Previous Year	Liabilities	Previous Year	Assets
\$	\$	\$	\$
4,832,875	Capital debt	737,344	Plant and equipment
1,147,657	Less repaid	510,487	Sundry debtors
3,685,218		226,857	Investment
390,750	Sundry creditors	628,764	Cash at treasury
	Reserves—		Prepayments
41,724	Repairs and overhauls	1,000	Accumulated funds as at 1st October
122,333	Employees leave	16,574	Adjustments
544,512	Losses or damage	70,967	Loss for year
15,074	Maintenance of berths		
\$4,799,611		\$944,162	
		4,799,611	944,162

The Dredge Service now undertakes dredging activities only on the Northern coastal rivers. During 1977–8 services rendered, etc., totalled \$234,331 compared to \$693,088 in 1976–7. A loss on operations of \$241,911 was obtained in 1977–8 compared to a loss of \$387,862 in the previous year. As at 30–9–78 accumulated funds totalled \$61,931.

LEICHHARDT WORKSHOPS

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 1979

Previous Year	Expenditure	Previous Year	Income
\$	\$	\$	\$
449,564	Wages	469,481	Services rendered
834,207	Stores used	893,304	Misc.
59,129	Cartage	65,318	Transport
65,416	Workshop supervision	72,578	Motor vehicle detailing
204,847	Workshop operating	256,272	
135,818	Leave costs	138,186	
13,736	Depreciation	14,920	
22,300	Interest on advance	22,140	
17,000	Interest on working capital	3,726	
137,769	Salaries	135,552	
144,986	W.C.I., P.R.T., & N.S.W. retirement fund	151,244	
116,472	Sundry expenses	171,888	
214,549	Net profit	241,908	
\$2,415,793	\$2,636,517	\$2,415,793	\$2,363,517

LEICHHARDT WORKSHOPS

BALANCE SHEET AS AT 31ST MARCH, 1979

Previous Year	Liabilities	Previous Year	Assets
\$	\$	\$	\$
338,310	Capital debt	336,840	Buildings, etc.
62,088	Less repaid	65,448	Plant, Mach., etc.
276,222		271,392	Stores on hand
177,018	Leave provision	186,596	Sundry debtors
13,505	Repairs reserve	12,347	Special deposits
913,338	Sundry creditors	395,311	Sundry suspense accounts
200,000	Working capital		
	Accumulated Funds—		
563,266	As at 1st April	804,276	
26,461	Adjustments	26,354	
214,549	Profit for year	241,908	
804,276	As at 31st March	1,072,538	
\$2,384,359	\$1,938,184	\$2,384,359	\$1,938,184

A profit of \$241,908 was made on the operations of the Leichhardt Workshops in 1978–9 compared to a profit of \$214,549 in 1977–8. Services rendered totalled \$2,609,897 as against \$2,387,741 in the previous year.

MATERIALS TESTING AND CHEMICAL SERVICES LABORATORY

INCOME AND EXPENDITURE ACCOUNT FOR YEAR ENDED 31ST DECEMBER, 1978

<i>Previous Year</i>	<i>Expenditure</i>		<i>Previous Year</i>	<i>Income</i>	
\$		\$	\$		\$
202,422	Glebe working expenses	212,427	67,419	Cement assurance scheme	79,692
202,159	Steelwork, etc., inspections	243,714	225,673	Glebe testing	324,539
67,419	Cement assurance scheme	79,692	194,620	Steelwork etc., Inspections	234,581
21,481	Net profit	107,486	4,281	Interest	4,507
			1,488	Profit on sale of plant .. ..	..
<u>493,481</u>		<u>643,319</u>	<u>\$493,481</u>		<u>\$643,319</u>

MATERIALS TESTING AND CHEMICAL SERVICES LABORATORY

BALANCE SHEET AS AT 31ST DECEMBER, 1978

<i>Previous Year</i>	<i>Liabilities</i>		<i>Previous Year</i>	<i>Assets</i>	
\$		\$	\$		\$
75,308	Sundry creditors	162,198	109,972	Major equipment	109,897
65,636	Leave reserve	76,062	8,040	Minor plant and tools	7,756
882	Repairs provision	71	56,800	Investment	56,800
97,936	Depreciation reserve	104,284	157,198	Sundry debtors	197,443
	Accumulated funds—		17,700	Cash at treasury	188,153
89,266	As at 1st January	112,466	2,518	Sundry trade stores	2,518
1,719	Adjustments .. ..	..		
21,481	Profit/Loss for year	107,486			
<u>112,466</u>		<u>219,952</u>	<u>\$352,228</u>		<u>\$562,567</u>
<u>\$352,228</u>		<u>\$562,567</u>			

Work undertaken by the Testing Branch includes cement testing, pipe inspection, testing of concrete and a wide range of general testing and inspection activities.

Operations in 1978 resulted in a profit of \$107,486, compared with a profit of \$21,481 in the previous year. Income earned in 1978 totalled \$643,319 and expenditure \$535,833.

STATE BRICKWORKS

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 1979

Previous Year	Expenditure		Previous Year	Income	
\$		\$	\$		\$
2,545,505	Wages including Workers' Compen- sation, etc.	2,892,089	6,066,113	Sales	7,400,986
501,853	Coal and Fuel Oil	723,323	937,939	Add Stock 31-3-79	1,275,057
680,499	Stores	798,846			
905,286	Repairs and Maintenance	1,156,252	7,004,052		8,676,043
197,193	Electricity	264,499	1,757,631	Less Stock 1-4-78	937,939
6,781	Water and Sewerage	8,359			
51,397	Plant Hire	63,067	5,246,421		7,738,104
406,854	Plant Operating Costs	554,402	1,039,338	Cartage Recovered	1,237,995
275,521	Depreciation	323,035	42,499	Sundry Income	45,718
..	Laboratory Costs	3,767	1,536,431	Net Loss	897,758
3,000	Insurance of Plant	3,000	320,000	Premium Re-lease No. 2 Pit .. .. .	..
1,049,303	Cartage	1,230,494			
69,500	Local Govt. Cont.	66,164			
991,665	Administration Expenses	1,190,185			
388,987	Interest, etc., on Capital	618,828			
9,750	Sinking Fund Contribution	22,800			
100,000	Provision for Contingencies .. .. .	..		
1,595	Other Trading Expenses	465			
8,184,689		9,919,575	8,184,689		9,919,575

STATE BRICKWORKS

BALANCE SHEET AS AT 31ST MARCH, 1979

Previous Year	Liabilities		Previous Year	Assets	
\$		\$	\$		\$
4,894,747	Capital Debt	7,618,618	3,502,682	Buildings, Kilns, etc., at Homebush	4,039,149
402,216	Less Repaid	425,016	1,030,006	Less Depreciation	1,106,481
4,492,531		7,193,602	2,472,676		2,932,668
146,924	Reserves and Provisions— Capital Repayments	169,724	3,032,265	Buildings Kilns, etc., at Blacktown	3,447,056
667,038	Employees' Leave	1,098,682	525,244	Less Depreciation	641,593
8,538	Repairs and Maintenance	128,083	2,507,021		2,805,463
31,197	Mobile Plant Insurance	34,197	1,361,016	Plant Tools, etc.	1,568,718
100,000	Contingencies	150,000	719,847	Less Depreciation	842,033
..	N.S.W. Retirement Fund	311,478	641,169		726,685
14,277	Income Tax Equivalent .. .. .	..	136,434	Investments	93,434
967,974		1,892,164			
3,009,203	Sundry Creditors	1,365,726		Current Assets—	
131,359	Deposits on Orders	222,148	937,939	Brick Stocks	1,275,057
200	Security Deposit—Canteen	200	645,923	Stores and Materials	601,811
..	Owing to Treasury	750,582	916,520	Sundry Debtors	1,389,882
1,539,442	Accumulated Funds— As at 1st April	(23,063)	320,522	Cash at Treasury	229,854
(26,074)	Adjustments	(448,747)			
(1,536,431)	Loss for Year	(897,758)			
(23,063)		(1,369,568)	8,578,204		10,054,854
8,578,204		10,054,854			

Bricks sold in 1978-9 totalled 55 138 856 (previous year 52 071 109) which realised sales revenue of \$7,400,986 (\$6,066,113). A net deficiency of \$897,758 was obtained in 1978-9 compared to a deficiency of \$1,536,431 in 1977-8.

BUILDING CONSTRUCTION AND MAINTENANCE BRANCH

WORKING ACCOUNT—INCOME AND EXPENDITURE ACCOUNT FOR YEAR ENDED 30TH JUNE, 1979

Previous Year	Expenditure	Previous Year	Income
\$		\$	\$
9,173,794	Wages	9,524,969	
6,160,572	Materials	6,618,105	37,426,660 Recoupments
6,595,178	Contract Payments	5,088,937	
4,852,719	Other Charges	5,679,888	
	Supervision—		
2,752,350	Wages and Salaries	3,061,814	
2,588,618	Workers' Compo., Payroll Tax, Accident Leave	2,203,804	
463,632	Public Holidays	493,265	
519,803	Sick Leave, etc.	466,963	
1,437,561	Leave Provision	1,831,079	
415,237	Plant cost and Depreciation	524,829	
773,636	Transport Costs	881,497	
404,154	Sundry Expenses	521,901	
25,097	Store Operating Cost	57,017	
1,264,309	Net Profit	508,059	
37,426,660		37,426,660	37,462,127

BUILDING CONSTRUCTION AND MAINTENANCE BRANCH

WORKING ACCOUNT—BALANCE SHEET AS AT 30TH JUNE, 1979

Previous Year	Liabilities	Previous Year	Assets
\$		\$	\$
6,709,469	Sundry Creditors	21,266	Buildings
4,374,920	Leave Reserve	809,001	Plant and Equipment
	Accumulated Funds—	1,310,192	Stores and Materials
540,241	As at 1st July	3,891,984	Sundry Debtors
1,264,309	Profit for year	6,856,496	Cash at Treasury
1,804,550	As at 30th June		
12,888,939		12,888,939	14,037,982

There was a net profit on operations of \$508,059 for the year 1978–9 compared with a profit of \$1,264,309 in the preceding year. Total expenditure was \$36,954,068 compared with \$36,162,351 in 1977–8, an increase of \$791,717. The monthly average number of employees (excluding staff) during 1978–9 was 1 334 compared to 1 340 in 1977–8.

GOVERNMENT MOTOR GARAGE

BALANCE SHEET AS AT 30TH JUNE, 1979

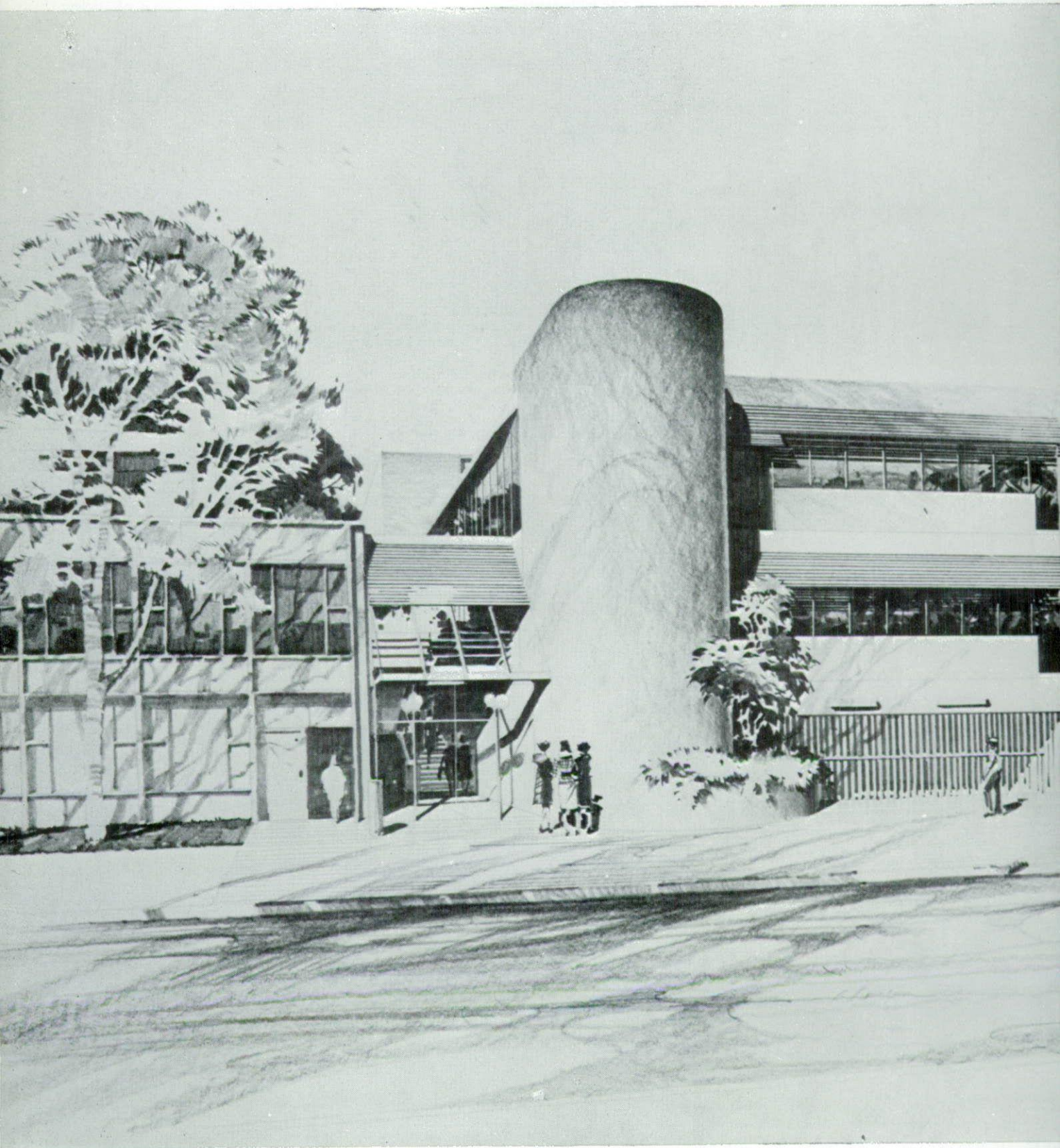
Previous Year	Liabilities					Previous Year	Assets				
\$					\$	\$					\$
223,860	Capital Debt	..	..	..	223,860	125,152	Lands, Buildings, etc.	..	..	..	232,927
153,651	Less repaid	..	..	..	158,404	40,010	Work in Progress	..	..	..	65,860
70,209					65,456	48,800	Stores and Materials	..	..	..	88,690
149,397	Leave Reserve	..	..	..	166,005	363,523	Debtors	..	..	..	324,151
38,947	Renovations Reserve	..	..	..	29,418	418,389	Cash at Treasury, etc.	..	..	..	389,667
24,107	Extensions Reserve	..	..	..	28,580						
1,229	Stock Disposal	..	..	..	4,216						
208,361	Sundry Creditors	..	..	..	268,311						
	Accumulated Funds—										
393,045	As at 1st July	..	..	..	503,624						
110,579	Surplus for Year	..	..	..	35,685						
503,624					539,309						
995,874					1,101,295	995,874					1,101,295

The Government Motor Garage undertakes repairs and maintenance to all classes of motor vehicles including accident repairs on behalf of the Government Insurance Office. Services Rendered totalled \$1,606,379, as against \$1,623,280 in 1977-8.

GOVERNMENT MOTOR GARAGE

INCOME AND EXPENDITURE ACCOUNT FOR YEAR ENDED 30TH JUNE, 1979

Previous Year	Expenditure					Previous Year	Income				
\$					\$	\$					\$
386,643	Wages	..	..	..	396,130	1,623,280	Services Rendered	..	..	..	1,606,379
85,989	Leave Cost	..	..	..	99,734	5,276	Stock Adjustment	..	..	..	57,917
533,837	Stores and Materials	..	..	..	567,092	10,981	Miscellaneous Revenue	..	..	..	12,010
96,120	Shop Supervision	..	..	..	107,415						
39,974	Repairs and Maintenance	..	..	..	20,851						
5,667	Depreciation on Plant	..	..	..	5,849						
34,910	Sundry Trading Expenses	..	..	..	33,352						
156,777	Salaries, etc.	..	..	..	195,884						
23,755	Workers' Compensation Insurance	..	..	..	21,567						
39,946	Payroll Tax	..	..	..	41,822						
26,123	Cleaning and Caretaking	..	..	..	33,890						
2,822	Depreciation on Building	..	..	..	3,802						
12,642	Insurance	..	..	..	13,597						
2,010	Interest, etc.	..	..	..	2,047						
7,686	Loan Repayment	..	..	..	7,686						
74,057	Sundry Overhead Expenses	..	..	..	89,903						
110,579	Net Surplus	..	..	..	35,685						
1,639,537					1,676,306	1,639,537					1,676,306



Artist's impression of additions to Penrith Court House.

Appendix 2

Architectural

Sketches

Hospitals

State Pollution Control Commission—Flammable Liquid Store.
Parramatta Psychiatric Centre—Public Toilets.
St Margarets Hospital General Ward—Hotwater Storage Tank.
Lewisham Hospital Staff Cafeteria.
Marrickville Hospital—Refurbish Wards.
Royal Prince Alfred Hospital—Utility Room.
Canterbury Hospital—Laundry Roof.
Parramatta Psychiatric Centre—Conversion Ward 2.
Auburn District Hospital—Extensions to Casualty.
Canterbury Hospital—Refurbish Wards 4 and 5.
St Josephs Hospital Auburn—Pathology.
Canterbury Hospital—Refurbish Thoracic House Entrance.
Canterbury Hospital Physiotherapy Dispensary Alteration.
Rydalmere Hospital—Footbridge.
Royal Prince Alfred Hospital—Page Chest Pavilion.
Division of Forensic Medicine—Deep Freeze Drain.
Rozelle Hospital Ward 3—Fire Escape.
Canterbury Hospital—Audiology Department.
Lithgow District Hospital—Redevelopment.
Molong District Hospital Ambulance Station.
Blayney District Hospital Ambulance Station.
Forbes District Hospital—Maternity Unit.
Bathurst District Hospital—Historical Renovation.
Queanbeyan Ambulance Station.
Griffith Base Hospital—Assessment and Rehabilitation Ward.
Braidwood District Hospital—Remodelling.
Hay Hospital Ambulance Station.
Garrawarra Hospital—Boiler Replacement.
Bulli District Hospital—Kitchen Additions.
Lady Wakehurst Annexe Crown Street Training Unit.
Queanbeyan Hospital—Refurbish Day Care Clinic.
Port Kembla District Hospital—Loading Dock.
Temora District Hospital—Relocation of Mortuary.
Queanbeyan Hospital—X-Ray Unit.
Griffith Base Hospital—Relatives Unit.
Wollongong Hospital—X-Ray Unit.
Cooma District Hospital—Kitchen Refurbishing.
Queanbeyan District Hospital—Screening.
Temora Hospital—Screening.
Prince of Wales Hospital—X-Ray Room.
Prince of Wales Hospital—Processor.
Prince Henry Hospital—Screening Room.
Prince Henry Hospital—Processor.
South Sydney Hospital—Room Screening.
Prince Henry Hospital—X-Ray Angiographic.
Randwick Chest Hospital—Processor.
Griffith Base Hospital—Waste Disposal and Laundry.
Kiama District Hospital—Dark Rooms.
Ashford Ambulance Station.
Inverell District Hospital—Maternity Block.
Neutral Bay Health Centre—Partitions.
North Ryde Psychiatric Centre Cameron Block.
Coffs Harbour Rehabilitation Centre.
Mona Vale Hospital—Chapel and Kitchen Store.
Peat Island—Dining Room.

Schools, Universities and Technical Colleges

Terrigal High School.
Glebe High School.
Holsworthy High School.
Warren Central School.
Belrose High School.
Waterloo High School.
Oberon Central School.
Wilkins Primary School.
Thurwood Avenue Primary School.
Quarry Creek Primary School.
Bonnyrigg Primary School.
Forster High School.
Braddock Primary School.
Niagara Park Primary School.
St Clarie Primary School.
Burwood Primary School.
Belmore Boys High School.
Tacking Point Primary School.
Leichhardt Primary School.

Dubbo East Primary School.
Gulargambone Central School.
Temora High School.
Coleambally Central School.
Belmont Road Primary School.
Oxley Vale Primary School.
Gosford High School.
Mortdale School for Special Purposes.
Scone Primary School.
Eleebana North Primary School.
Canowindra High School.
North Rocks Primary School.
Boorowa Central School.
Tolland Primary School.
Uralla Central School.
Singleton Primary School.
Bellambi Primary School.
Karonga House School for Special Purposes.
Richmond High School.
Orange East Primary School.
Corowa Primary School.
Auburn Girls High School
Heathcote High School.
The Junction Primary School.
Tanilba Bay Primary School.
Goonellabah Primary School.
Hanwood Primary School.
Lightning Ridge Primary School.
Strathfield South Primary School.
Lakemba Primary School (Infants).
Tahmoor Primary School.
Beauty Point Primary School.
Gloucester Primary School.
Kareela Primary School.
Parameadows School for Special Purposes.
Hurstville Boys High School.
Penrith High School.
Thornleigh Primary School.
Allambie Heights Primary School.
Newcastle Hill Primary School.
Karabar High School.
Eastlakes Primary School.
Jewells Primary School.
Colyton High School.
Kadina High School.
King St Primary School.
Birrongo Boys High School.
Tyalla Primary School.
Merriwa Central School.
Redhead Primary School.
Forest Road School for Special Purposes.
Wallacia Primary School.
Bateau Bay Primary School Demountable.
Goodooga Central School.
Maroota Primary School.
Nynang High School.
Katoomba North Primary School.
Freemans Reach Primary School.
Ebenezer Primary School.
Mount Victoria Primary School.
Wallsend High School.
Australia Street Primary School.
Fennell Bay Primary School.
Belmont High School.
Boomerang Beach Primary School.
Kurri Primary School.
Tea Gardens Primary School.
Northmead High School.
Molong Central School.
Riverside Girls High School.
Broadmeadow High School.
West Wallsend High School.
Hamilton Primary School.
Dubbo South High School.
Strathfield South Primary School.
Speers Point East Primary School.
Gulgong Central School.
Whalan Primary School.
Blackett Primary School.
Lethbridge Park Primary School.

New Lambton South Primary School.
 Merrylands Primary School.
 Colo Heights Primary School.
 Tregear Primary School.
 Shalvey High School.
 Newcastle High School.
 Bathurst Technical College—Stage III.
 Baulkham Hills Technical College—Stage I.
 Brookvale Technical College—Stage II.
 East Sydney Technical College—Major Conversions.
 Forbes Technical College—Stage II.
 Gosford Technical College—Stage II.
 Gympie Technical College—Stage IV—Workshop.
 Kempsey Technical College—Stage II.
 Miller Technical College—Stage II—Boilermaking.
 Mount Druitt Technical College—Stage III.
 Shellharbour Technical College—Stage II.
 Sydney Technical College—Stage III.
 Sydney Technical College—Major Conversions.
 Brookvale Technical College—Stage III.
 Wagga Wagga Technical College—Stage IV.
 Wagga Wagga Technical College—Stage V.
 West Sydney Technical College—Stage III.
 Wollongong Technical College—Stage III.
 Wollongong Technical College—Stage VII.
 Wollongong Technical College—Stage VIII.
 Wyong Technical College—Stage I.

Court Houses, Police Buildings and Gaols

Hornsby Police Station.
 Springwood Police Station.
 Kogarah Police Station.
 Sutherland Police Station and Courthouse.
 Nowra Courthouse Additions.
 Central Courts Restoration.
 Waterloo Police Transport Branch.
 Bathurst Gaol Redevelopment Additional Works.
 Maitland Gaol Officers Amenities.
 Milson Island, Stage I.
 Mulawa Womens Prison New Hospital.
 Narrabri Gaol.
 Goulburn Gaol Electrical Upgrade.
 Parramatta Gaol Reception.
 Long Bay M.R.P. Chapel.
 Emu Plains Poultry Processing Unit.
 Cessnock Gaol Vehicle Wash.
 Mannus Stage II Store and Visiting.
 Milson Island, Stage II.
 Special Security Wing C.I.P. Long Bay.
 Parramatta Gaol Fire Protection.
 Grafton Gaol Officers Amenities.

Youth and Community Services

Cobham Remand Centre—Maintenance Workshop and Kiosk.
 Keelung Remand Centre—Maintenance Workshop.

Office Buildings

Soil Conservation Service—New Office Parkes.
 Fisheries Narrandera Tourist Facilities.
 Mineral Resources and Development—
 (i) New On Load Laboratory.
 (ii) New Laboratory.
 (iii) Comprehensive Bore Core Libraries.

Office Buildings (Accommodation)

(Major Projects Only)
 School of Dental Technicians TAFE
 Floor 3, Winns Building, Regent Street, Redfern.
 Justice, Floors 1, 4 and 5 including Registrars Court,
 Mena House, Macquarie Street, Sydney.
 Energy Authority, Floors 13 to 18 inclusive,
 Castlereagh Street, Sydney.
 Police Scientific and Technical Services,
 7 Floors, Remington Centre, Sydney.

Working Drawings

Hospitals

Parramatta Psychiatric Centre—Public Toilets.
 Royal Prince Alfred Hospital—Upgrade Utility Room.
 Canterbury Hospital—Refurbish Wards 4 and 5.
 Canterbury Hospital—Physiotherapy/Dispensary Alteration.
 Division of Forensic Medicine—Deep Freeze Drains.
 Rozelle Hospital—Ward 3 Fire Escape.
 Canterbury Hospital—Audiology Department.
 Division of Forensic Medicine—Conversion Room GS2.
 Canterbury Hospital—Nurses Home Fire Escape.
 Forbes District Hospital—Maternity Unit.
 Bathurst District Hospital—Historical Block Renovations.
 Griffith Base Hospital—Assessment and Rehabilitation Ward
 Refurbishing.
 Hay Hospital—Ambulance Station.
 Bulli District Hospital—Kitchen Additions and Alterations.
 Queanbeyan Hospital—New X-Ray Unit.
 Tumut District Hospital—Kitchen.
 Wollongong Hospital—New X-Ray Unit.
 Cooma District Hospital—Kitchen Refurbish.
 Queanbeyan District Hospital—Screening.
 Prince of Wales—X-Ray Room 5.
 Randwick Chest Hospital—Processor.
 Griffith Base Hospital—Waste Disposal Centre.
 Griffith Base Hospital—Bulk Oxygen Supply.
 Griffith Base Hospital—Laundry Improvements.
 Shoalhaven District Memorial Hospital—Proposed Additions
 and Alterations New Childrens' Ward and Casualty Unit.
 Manly Psychiatric Centre—Development.
 Mona Vale District Hospital—Chapel.
 Mona Vale District Hospital—Kitchen Stores Extension.
 Coffs Harbour Hospital—Rehabilitation Centre.
 Peat Island Hospital—Dining Rooms Wards 1 and 2.
 North Ryde Psychiatric Unit—Ward 6.
 North Ryde Psychiatric Unit—Provisional Inflammable Liquid
 Store.
 North Ryde Psychiatric Unit—PABX Room.
 North Ryde Psychiatric Unit—Wards 3 and 4 Cameron Block
 Sunroom.
 North Ryde Psychiatric Unit—Cameron Block, Fire Escape.
 North Ryde Psychiatric Unit—Ward 14 Conversion for Ryde
 Hospital.
 Stockton Hospital—New Kitchen.
 Peat Island—Repair and Replacement of Fire Stairs.
 Inverell District Hospital—Refurbishing of Female Ward Area.
 Mangrove Creek—Architectural features Cottage.
 Ashford—New Ambulance Station.

Schools, Universities and Technical Colleges

Dubbo West High School.
 Terrigal High School.
 Warren Central School.
 Westport High School.
 Oberon Central School.
 Willoughby Girls High School/Primary School.
 Quarry Creek Primary School.
 Gorokan Primary School.
 Katoomba Primary School.
 Forster High School.
 Wamberal Primary School.
 Woy Woy Primary School.
 Kiama High School.
 Dorriggo Primary School.
 Glenorie Primary School.
 Bega High School.
 Tuncurry Primary School.
 North Rocks Primary School.
 Farmborough Road Primary School.
 Albury West Primary School.
 Tolland Primary School.
 Uralla Central School.
 Gateshead High School.
 Singleton Primary School.
 Karonga House School for Special Purposes.
 Nowra High School.
 Thornleigh West Primary School.
 Albion Park Rail Primary School.

Richmond High School.
 Lane Cove Primary School.
 Hay High School.
 Auburn Girls High School.
 Muirfield High School.
 Killarney Vale Primary School.
 Gilgandra High School.
 Tanilba Bay Primary School.
 Seven Hills North Primary School.
 Lavington Primary School.
 Kareeta Primary School.
 Penrith High School.
 Culburra Primary School.
 Newcastle Hill Primary School.
 Merewether High School.
 Cudgen Primary School.
 Murray Farm Primary School.
 Colyton High School.
 King Street Primary School.
 Tyalla Primary School.
 Liverpool Girls High School/Boys High School.
 Redhead Primary School.
 Wyong Primary School.
 Maroota Primary School.
 Katoomba North Primary School.
 Wallsend High School.
 Fennell Bay Primary School.
 Boomerang Beach Primary School.
 Broadmeadow High School.
 West Wallsend High School.
 Daceyville Primary School.
 Marrickville Primary School.
 Mascot Primary School.
 New Lambton South Primary School.
 Brookvale Technical College—Stage II.
 Brookvale Technical College—Stage III.
 East Sydney Technical College—Major Conversions.
 Forbes Technical College—Stage II.
 Gympie Technical College—Stage IV—Workshops.
 Miller Technical College—Stage II—Boilermaking.
 Shellharbour Technical College—Stage II.
 Sydney Technical College—Stage III.
 Wagga Wagga Technical College—Stage IV.
 West Sydney Technical College—Stage III.
 Wollongong Technical College—Stage VII.
 Wollongong Technical College—Stage VIII.

Court Houses, Police Buildings and Gaols

Gosford Police Station and Courthouse.
 Macquarie Fields Police Station.
 Engadine Police Station.
 Pallamallawa Police Station.
 Bundarra Police Station.
 Euston Police Station.
 Ryde Police Station Additions.
 Long Bay Communication Centre.
 Parramatta Gaol Electrical Upgrade.
 Parramatta Gaol 3 Wing Sewerage.
 Mulawa Maximum Security Extension.
 Long Bay Staff Development Centre, Stage I.
 Maitland Security Improvements.
 Newington House Restoration, Stage I.

Youth and Community Services

Metropolitan Remand Centre, Glebe.
 Clairvaux—Hall.

Office Buildings

Public Service Board, Griffith Government Offices.
 Newcastle Government Offices.
 Soil Conservation Service,
 Extensions to existing offices, Condobolin.
 Fisheries,
 Lake Illawarra—New boatshed, garage and residence.
 Department of Mineral Resources and Development,
 New Brake Test Strip,
 New Fire Test Area.

Public Service Board,
 New Post Mortem and Storage Facilities,
 Gunnedah (for Department of Agriculture).
 New Post Mortem, Storage and Workshop Facilities,
 Broken Hill (for B. C. & M. and various user Departments
 Broken Hill Government Offices).

Office Buildings (Accommodation)

Corrective Services, Floors 14 to 19 inclusive,
 Roden Cutler House, Campbell Street, Sydney.
 Consumer Affairs, Provision of new offices at various locations.
 Decentralisation, Provision of new offices at various locations.
 Land Tax Office, Floors 11, 12, 13, M.L.C. Building,
 Martin Place, Sydney.

Miscellaneous

Conservatorium of Music—Conversion of West Wing,
 Bathurst Court.
 Department of Agriculture—Biological and Chemical Research
 Institute, Rydalmere.

WORK COMMENCED PRIOR TO 1-7-1978 AND COMPLETED DURING THE YEAR 1978-9

Hospitals	\$
Maitland District—new block and alterations ..	2,719,100
Royal North Shore and Royal Prince Alfred— cardiovascular X-ray equipment	651,100
Royal South Sydney—new ward and theatre block	634,300
Nepean District—electrical services	600,000
Grafton Base—boiler conversion	311,000
St Vincent's—X-ray equipment	262,700
Quirindi District—new kitchen	197,200
Lidcombe Scientific Laboratories—basement develop- ment—stage 2	153,000
Hospitals Generally—data processors and nuclear medical equipment	144,500
Merrima District—mechanical services	143,400
Wentworth—new geriatric ward	140,000
Royal Newcastle—X-ray	110,800
In addition there were 140 projects under \$100,000 of a total value of	3,705,000
	<hr/> \$9,772,100

Schools, Universities and Technical Colleges

	\$
Cumberland College of Health Sciences—stage 1 and 2	10,250,500
Ryde Technical College—stage 2	9 639,800
Narrabeen High—amalgamation	3,825,700
Granville Technical College—stage 5 and 6 ..	3,243,500
Minto Community School—stage 1	2,827,200
Henry Kendall High—stage 3	2,049,800
Noumea Public—new school	1,699,600
Hampden Road Public—new school	1,697,100
Maroubra Junction High—additional accommo- dation	1,657,500
Coffs Harbour High—stage 1	1,558,000
Newcastle High—stage 2	1,469,800
Toormina Public—new school	1,289,400
Ambarvale Public—new school	1,256,700
Morisset High—additional accommodation ..	1,186,600
Bateman's Bay Public—additional accommodation	1,117,200
Waratah High—stage 3	1,098,600
Toronto West Public—alterations and additions ..	1,091,400
Eden Public—extensions and alterations	1,076,500
Cessnock High—multi-purpose centre	1,064,000
St Peters Public—consolidation	1,036,800
Wyong High—additional accommodation	1,031,700
Forest Lodge Public—additional accommodation and renovations	1,006,200
Alexandria Public—additional accommodation ..	995,100
Lewisham Public—additional accommodation ..	976,300

Sydney Technical College—buildings 1 and 2—renovations	973,200
Hurstville Public—additional accommodation	940,800
Auburn North Public—additional accommodation	934,000
Sydney Technical College—alterations to buildings 7 and 8	926,600
Holsworthy Public—additional accommodation	852,000
Katoomba High—alterations and additions	844,400
Austral Public—additional accommodation	821,600
Wilson Park Public—new school	822,600
Moruya High—stage 2	820,000
Broken Hill High—conversions	817,000
Dulwich Hill Public—additional accommodation—stage 2	797,800
Cowra Public—additional accommodation	791,000
Maroubra Bay Public—alterations and additions	746,600
Balarang Public—alterations and additions	741,000
Farrer Agricultural High—buildings 1-5	721,200
Plumpton High—stage 2	717,900
Armidale High—alterations and additions	713,400
Sturt Public—additional accommodation	711,000
Elderslie High—stage 2	693,200
Islington Public—additional accommodation	683,800
Cumberland College of Health Sciences—stage 3	681,200
Prince of Wales—new school	677,900
Sackville Street Public—stage 2	674,000
Leumeah High—stage 2	657,600
Mulwaree High—stage 2	649,600
Inverell High—multi-purpose building centre	645,800
Murray High—stage 2	643,700
Kingsgrove North High—additional accommodation	628,400
Crestwood Public—additional accommodation	614,700
Kadina High—stage 2	557,400
Glenroy Public—stage 2	534,000
Westport Public—additional accommodation—stage 3	532,400
Coomealla High—alterations and additions	530,700
Raymond Terrace High—library and laboratory block	509,600
Mona Vale Public—additional accommodation	490,900
Enngonia Public—new school	487,200
Girraween High—stage 2	485,800
Tumut High—multi-purpose centre	480,500
Duval High—stage 2	478,000
Griffith East Public—additional accommodation	472,200
Chester Hill High—assembly hall	460,800
Engadine West Public—additional accommodation	445,800
Shellharbour Technical College—stage 1	440,300
Swansea High—standard multi-purpose centre	418,900
Forbes High—standard multi-purpose centre	410,000
Crookwell High—multi-purpose centre	388,200
James Ruse Agricultural High—standard multi-purpose centre	379,000
Quirindi High—standard multi-purpose centre	378,600
Woy Woy High—standard multi-purpose centre	374,100
Wentworth Public—conversions	358,300
Queanbeyan Public—additional accommodation	351,100
West Wallsend High—standard multi-purpose centre	334,700
Toronto High—standard multi-purpose centre	334,400
Umina High—additional accommodation	333,000
Marton Public—stage 3	327,100
Broadmeadow High—binishell multi-purpose centre	288,000
Malvina High—library extensions	258,500
Milperra College of Advanced Education—kitchen and dining room fitout	250,000
Normanhurst Boys' High—conversions	172,200
Sydney Technical College—auto spray paint booths	129,000
Shellharbour Technical College—demountable buildings	125,200
Wollongong Technical College—steel store buildings	120,800
Newcastle West Technical College—re-wiring	110,000
Deniliquin South Public—new toilet block	102,400
In addition there were 276 projects under \$100,000 of a total value of	3,128,600
	<hr/>
	\$92,064,700

Court Houses, Police Buildings and Gaols		\$
Queanbeyan Court House and Police Station—new building	3,226,200	
Newcastle Police Station—stage 1	823,500	
Charlestown Police Station—new station	422,900	
Cessnock Corrective Centre—workshop block extensions	443,800	
Cessnock Corrective Centre—agricultural buildings	285,800	
Bathurst Gaol Re-development—road and site-works	196,900	
Narooma Police Station—new station	147,100	
Supreme Court, Refurbishing—electrical services	140,000	
Fairfield Court House—air conditioning	120,000	
In addition there were 68 projects under \$100,000 of a total value of	964,900	
	<hr/>	
		\$6,771,100

Miscellaneous		\$
Rawson Place Government Offices	23,841,000	
Broken Hill State Office Block	1,642,900	
Archives Authority of N.S.W.—additional accommodation	812,200	
Wagga Agricultural Research Institute—laboratory extensions	501,100	
Port Stephens Brackish Waters—fisheries research laboratories	471,100	
Gunnedah Soil Conservation Research Centre—administration building	338,000	
Narrandera Government Offices—conversions	286,600	
Museum of Applied Arts and Sciences—Castle Hill Store	273,300	
Old Supreme Court Building—stonework restoration	229,100	
Agricultural Dept., Import/Export Branch—loading dock and plant room	227,500	
Gore Cove Fisheries—new offices	207,200	
State Emergency Services—standby generators	202,000	
Museum of Applied Arts & Sciences—new laboratories	170,600	
Burrendong National Fitness Camp—student quarters	149,700	
Penrith Court House—air conditioning	142,000	
Government Offices, Kent Street—P.A.B.X.	111,100	
Government Offices, North Sydney—P.A.B.X.	104,600	
In addition there were 55 projects under \$100,000 of a total value of	858,800	
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		\$30,568,800

WORK COMMENCED PRIOR TO 1-7-1978 AND STILL IN PROGRESS

Hospitals		\$
Westmead—new hospital	133,284,500	
Wellington District—alterations and extensions	1,366,100	
Royal Alexandra Hospital for Children—X-ray	1,193,100	
Griffith Base—general ward block	1,064,400	
Hospitals Generally—gamma cameras	998,700	
Merriwa District—alterations and additions	908,500	
Royal North Shore and Prince Henry—X-ray	715,400	
Griffith Base—children's ward block	583,100	
Tamworth—laundry equipment	343,800	
Hospitals Generally—gamma cameras	342,700	
Royal Newcastle—X-ray	263,200	
Rachel Forster—heating plant	220,000	
Stockton—heating	184,100	
St Margaret's—boiler	173,700	
Royal Alexandra Hospital for Children—cardiac catheterisation laboratory monitoring equipment	169,600	
Royal Alexandra Hospital for Children—cardiac monitor	168,800	

Prince Henry—X-ray	159,400
Tamworth Base—X-ray	154,800
Prince Henry—X-ray	144,900
Mona Vale—air conditioning	130,000
St Vincent's X-ray	126,300
Tamworth Base—X-ray equipment	119,500
Sydney—X-ray	116,600
Prince of Wales—grit collector	110,000
Auburn District—X-ray	107,000
Tumut—L.T.H.W. conversion	105,800
In addition there were 125 projects under \$100,000 of a total value of	3,384,700
	<hr/> \$146,638,700

Schools, Universities and Technical Colleges

	\$
Bidwill Education Centre	8 428,800
Alexander Mackie College of Advanced Education—stage 1	6,194,300
Sydney Technical College—stage 2—business and administration building	5,410,600
Mt Druitt Technical College—stage 1	5,234,000
Concord High—new school	2,945,900
Colo High—new school	3,741,900
Toorima High—stage 1	3,574,900
Wollongong Technical College—stage 6	3,095,900
Narooma High—stage 1 and stage 2	2,885,500
Albury Technical College—stage 3	2,872,500
North Sydney Technical College—stage 5	2,783,800
Claymore Public—new school	2,164,400
Albury High—additional accommodation	2,091,800
Valley View Public—new school	1,986,400
Kelso Public—additions and conversions	1,883,500
Newbridge Heights public—new school	1,825,100
Bulli High—additional accommodation	1,814,200
South Sydney High—additional accommodation	1,789,800
Hornsby Technical College—stage 2	1,751,000
Wyong North Public—stage 1	1,741,000
Bathurst West Public—additional accommodation	1,723,400
Woodland Road Public—stage 1	1,563,300
Lake Albert Public—additional accommodation	1,498,100
Bonnet Bay Public—new school	1,414,400
Summer Hill Public—additional accommodation	1,316,700
Berkeley Vale Public—additional accommodation	1,304,500
Kambora Public—new school	1,145,900
Corowa High—alterations and additions	1,022,500
Marrickville Girls' High—conversion to co-ed	1,010,100
Heathcote Public—additional accommodation	981,300
Kogarah High—additional accommodation	962,400
Bulahdelah Central—additional accommodation	883,800
Blaxland East Public—additional accommodation	875,500
Liverpool Technical College—stage 2	807,600
Blakehurst High—additional accommodation	770,000
Lake Cargelligo Central—additional accommodation	762,700
Binnaway Central—alterations and additions	762,000
Cambridge Park High—stage 2	748,400
Loftus Street School for Specific Purposes—additional accommodation	747,000
Cobar Public—additional accommodation	734,400
Calare Public—alterations and additions	719,700
Blackalls Public—additional accommodation	714,600
Coonamble Public—additional accommodation	681,100
Monaro High—library/laboratory block—alterations and agriculture building	627,300
Richmond River High—multi-purpose centre	608,100
MacIntyre High—study 3—stage 2	556,700
Birrong Boys' High—multi-purpose centre	384,200
Gilgandra High—standard multi-purpose centre	382,700
Sydney Technical College—P.A.B.X.	381,800
Goulburn Technical College—hydraulic services	311,500
Goulburn Technical College—upgrade electric services	298,700
Parramatta High—cooling/heating ventilation system	180,000

Goulburn Technical College—civil works	104,500
Goulburn Technical College—ventilation and heating	104,300
In addition there were 66 projects under \$100,000 of a total value of	1,522,900
	<hr/> \$92,827,400

Court Houses, Police Buildings and Gaols

	\$
Penrith Police Station—new station	4,156,200
Dubbo Court House—alterations and additions	2,052,700
Kirkconnel Afforestation Camp—new kitchen, dining, laundry and recreation block	317,200
C.I.B. Headquarters—non-break power supply	216,100
Coolah Police Station—new police station	157,100
In addition there were 3 projects under \$100,000 of a total value of	216,400
	<hr/> \$7,115,700

Miscellaneous

	\$
Parliament House—stages 1A and 1B	30,900,000
Wetherill Park—furniture workshops	15,000,000
Werrington Park Child Welfare Centre—stage 3	2,712,400
Wormi Child Welfare Shelter—stages 2 and 3	1,653,200
Gunnedah Government Offices	1,120,000
Lands Department Building—stonework restoration	1,091,000
Department of Education—P.A.B.X.	458,300
Planning and Environment Commission—P.A.B.X.	137,600
In addition there were 29 projects under \$100,000 of a total value of	529,300
	<hr/> \$53,601,800

WORK COMMENCED AND COMPLETED DURING THE YEAR 1978-9

	\$
Lithgow District—theatre suite improvements	161,700
Bankstown District—X-ray refurbishing programme—stage 2—screening room	153,300
Tamworth Base—new blood bank	122,700
In addition there were 77 projects under \$100,000 of a total value of	1,304,300
	<hr/> \$1,742,000

Schools, Universities and Technical Colleges

	\$
Sydney Technical College—admissions and information unit	281,500
Department of Technical and Further Education—School of Podiatry	142,800
Tamworth Technical College—panel beating workshop	142,600
Ulladulla High—site development	130,900
In addition there were 96 projects under \$100,000 of a total value of	473,800
	<hr/> \$1,171,600

Court Houses, Police Buildings and Gaols

	\$
There were 107 contracts under \$100,000 of a total value of	1,504,800

Miscellaneous

	\$
There were 416 projects under \$100,000 of a total value of	1,460,100

**WORK COMMENCED DURING THE YEAR 1978-9
AND STILL IN PROGRESS**

Hospitals

	\$
Royal Prince Alfred—development	30,600,000
Stockton—new kitchen	843,200
Shoalhaven District Memorial—new children's ward and casualty unit	813,400
Nepean District—preparatory works	341,800
Royal Prince Alfred—radiotherapy simulator and treatment planning system	248,200
Peat Island—new activity unit	158,000
Prince of Wales—X-ray equipment	155,000
Sydney—X-ray equipment	154,500
Royal North Shore—X-ray equipment	119,600
Nepean District—modernisation of lift service	118,000
Stockton—washer extractors	117,700
In addition there were 45 projects under \$100,000 of a total value of	1,188,900
	\$34,858,300

Schools, Universities and Technical Colleges

	\$
Glendale Technical College—new college	6,624,500
Mount Druitt Technical College—stage 2	4,446,800
Campbelltown Technical College—new college	3,789,200
Minto Community—stage 2	3,291,400
Padstow Technical College—stage 1	3,241,500
Tempe Public—additional accommodation	2,185,000
Willoughby Girl's High and Public—alterations and additions	2,121,500
Crawford Public—additional accommodation	2,046,300
Wamberal Public—new school	1,955,000
St Johns Park Public—additional accommodation	1,937,200
Gorokan Public—new school	1,905,500
Bathurst High—additions and conversions	1,671,500
Dorriggo Public—new accommodation	1,486,000
Balranald Central—additional accommodation	1,470,000
Fairfield High—additional accommodation	1,443,600
The Grange Public—new school	1,390,800
Springdale Heights Public—new school—stage 1	1,348,100
Coolah Central—additional accommodation	1,099,400
Blaxland High—stage 2	1,093,000
Jewells Public—new accommodation	1,079,000
Lindfield East Public—additional accommodation	1,057,600
Bellambi Public—additional accommodation	1,048,800
Tolland Public—additional accommodation	1,009,300
St Johns Park High—stage 2	989,400
Emu Plains Public—additional accommodation	969,700
Illaroo Road Public—alterations and additions	832,100
Milperra Public—additional accommodation	813,300
North Sydney Technical College—stage 6A	736,900
Lavington East Public—additional accommodation	702,000
Jasper Road Public—additional accommodation	665,300
Coniston Public—additional accommodation	646,100
Sydney Technical College—F.S.U. and student amenities	618,900
Wentworth Falls Public—additional accommodation	568,500
Bathurst Technical College—stage 2	563,100
Nelson Bay High—additional accommodation	531,000
Glenray School for Special Purposes—additional accommodation and alterations	493,200
Murray Farm Public—additional accommodation	440,300
Winston Hills Public—stage 3	434,000
Muswellbrook Technical College—stage 2	442,600
Broken Hill Technical College—alterations and additions	360,700

Billabong High—stage 2	269,800
Singleton Technical College—stage 2	199,000
Lansvale Public—pre-school centre	193,600
Dubbo Technical College—stage 4	178,900
John Warby Public—pre-school centre	174,400
Sydney Technical College—students amenities	151,600
Eastern Creek Public—pre-school centre	148,500
Cumberland High—reinstatement of block E	137,500
Quarry Creek Public—road and drainage works	124,400
Alexander Mackie College of Advanced Education—landscaping	115,800
In addition there were 63 projects under \$100,000 of a total value of	791,300
	\$62,032,900

Court Houses, Police Buildings and Gaols

	\$
Newcastle Police Station—stage 2	7,537,800
Department of Attorney General and of Justice—traffic and magistrates courts accommodation	1,690,000
Muswellbrook Court House—new court house	1,497,600
Newcastle Court House—additions and alterations	1,386,700
Manly Court House and Police Station—alterations and additions	1,243,400
Bathurst Gaol—new services building	1,007,500
Silverwater Complex of Prisons—new women's accommodation block	894,000
Dee Why Police Station—alterations and additions	693,200
Police Department—fit out	493,800
Bathurst Gaol—new security wall and watchtowers	314,900
Wagga Wagga Police Station and Court House—air conditioning	227,100
Malabar Complex of Prisons—security lighting, stage 3	193,900
Malabar Complex of Prisons—security lighting	158,900
Cooma Gaol—heating and rewiring	143,800
Emu Plains Training Centre—electrical services	129,800
Ashford Police Station—new police station	121,200
Barraba Police Station—new police station	114,900
Warilla and Wollongong Police Station—P.A.B.X. telephone system	102,600
In addition there were 156 projects under \$100,000 of a total value of	1,069,100
	\$19,020,200

Miscellaneous

	\$
Mittagong Training School—new gymnasium and recreation hall	555,500
Royal Botanical Gardens—reconstruction of kiosk	518,000
Art Gallery of N.S.W.—repairs to roof	400,800
Taronga Zoo—new chimpanzee exhibit	356,400
Port Macquarie Water Supply—off creek pumping station	287,400
Art Gallery of N.S.W.—removal of asbestos ceiling	243,600
Premier's Department—C.A.G.A. Centre—fit out	184,000
Youth and Community Services—fit out	180,900
Metropolitan Remand Centre—stage 1	176,000
Shell House Government Offices—P.A.B.X. and telephone system	111,700
McKell Building—P.A.B.X.	110,300
Department of Public Works and Tourism—fit out	106,000
Department of Corrective Services—P.A.B.X. system	103,200
In addition there were 102 projects under \$100,000 of a total value of	1,337,200
	\$4,671,000



THE RESTORED GREENWAY SPIRAL STAIRCASE, SUPREME COURT

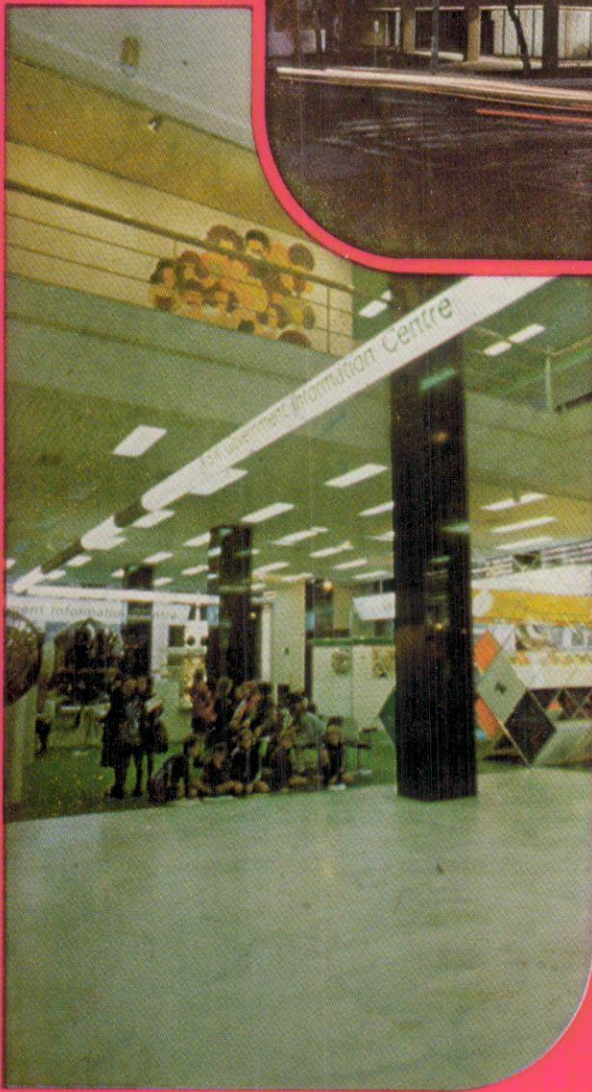
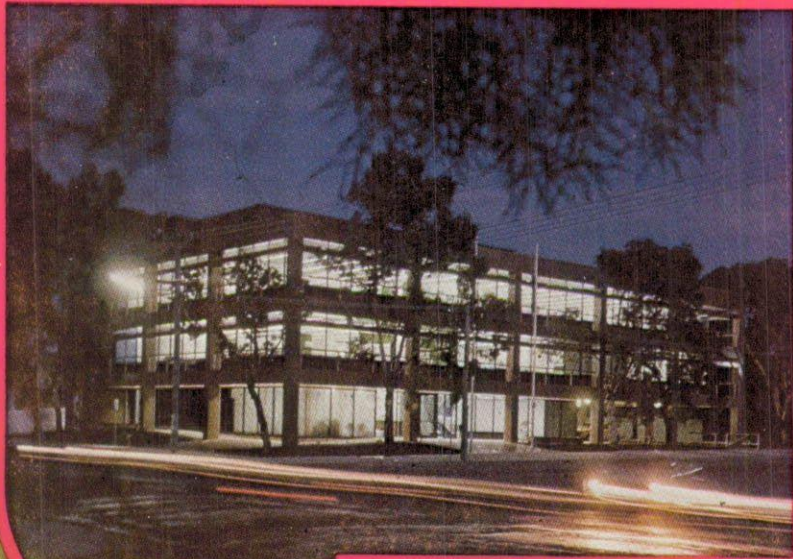
BACK COVER

TOP: BROKEN HILL GOVERNMENT OFFICES, AT NIGHT

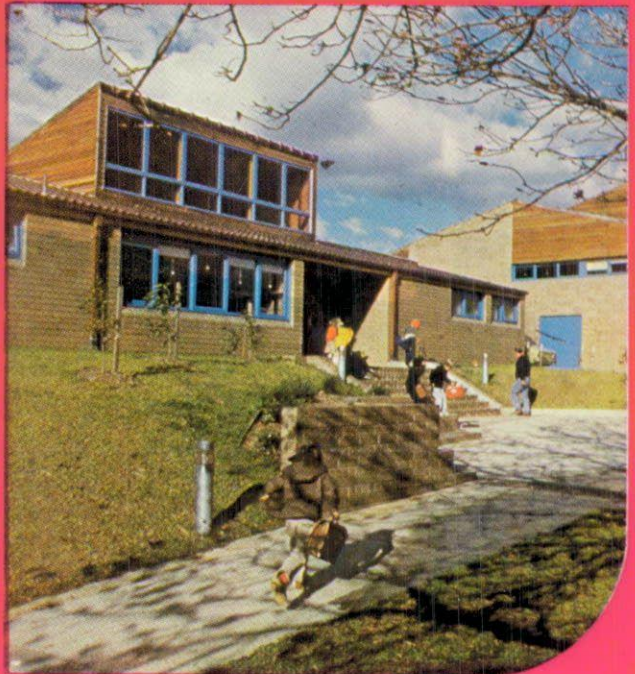
LEFT: N.S.W. GOVERNMENT INFORMATION CENTRE

RIGHT, ABOVE: EAST MAITLAND COURT HOUSE, RESTORATION

RIGHT, BELOW: HAMPDEN PARK PUBLIC SCHOOL



JCV



public works