

An aerial photograph of the Swan River in Perth, Australia. The river flows from the top left towards the bottom right, where it meets the city. The river is a vibrant blue, contrasting with the green and brown landscape. On the left bank, there's a large, flat area with some buildings and trees. On the right bank, the city of Perth is visible, with numerous buildings and a dense urban layout. The river has several bends and a large, light-colored sandbar or island in the middle. The sky is a pale, hazy blue.

Swan River Conservation Board

Report of Operations 1959/1969



Introduction—	Page 1
Constitution and Membership—	Page 3
Legislation, Regulations, Area under Control—	Page 5
Finance and Administration—	Page 8
Board Functions—	Page 9
Staffing—	Page 10
Board Activities—	Page 11
Maintenance of Waters and Foreshores—	Page 11
Pollution—	Page 14
Jetties, Bridges and Structures in and over the Waters—	Page 15
Reclamation, Dredging and Beach nourishment—	Page 17
Planning—	Page 21
Up-River Activities—	Page 23
Changing Face of the River—	Page 25
Appeals—	Page 30
Co-operative Undertakings—	Page 31

# contents ■ preface

The comparatively recent Amending Legislation and the fact that the Board has just held its 100th regular meeting, prompts Members to consider the time is opportune to publish a report of its activities since its formation in October 1959.

In its initial report the Board set out something of its aims and objects and the problems with which it was faced. Since then the Board has kept its responsible Minister fully informed of its activities, has maintained close contact with the appropriate Local Authorities through the Nominees of the Local Government Association, and through the courtesy and interest of the Press, Radio and Television Agencies has furnished the public with information as to its policies and undertakings. This document will serve to place on record what has been achieved, some of the problems encountered and those which lie ahead.

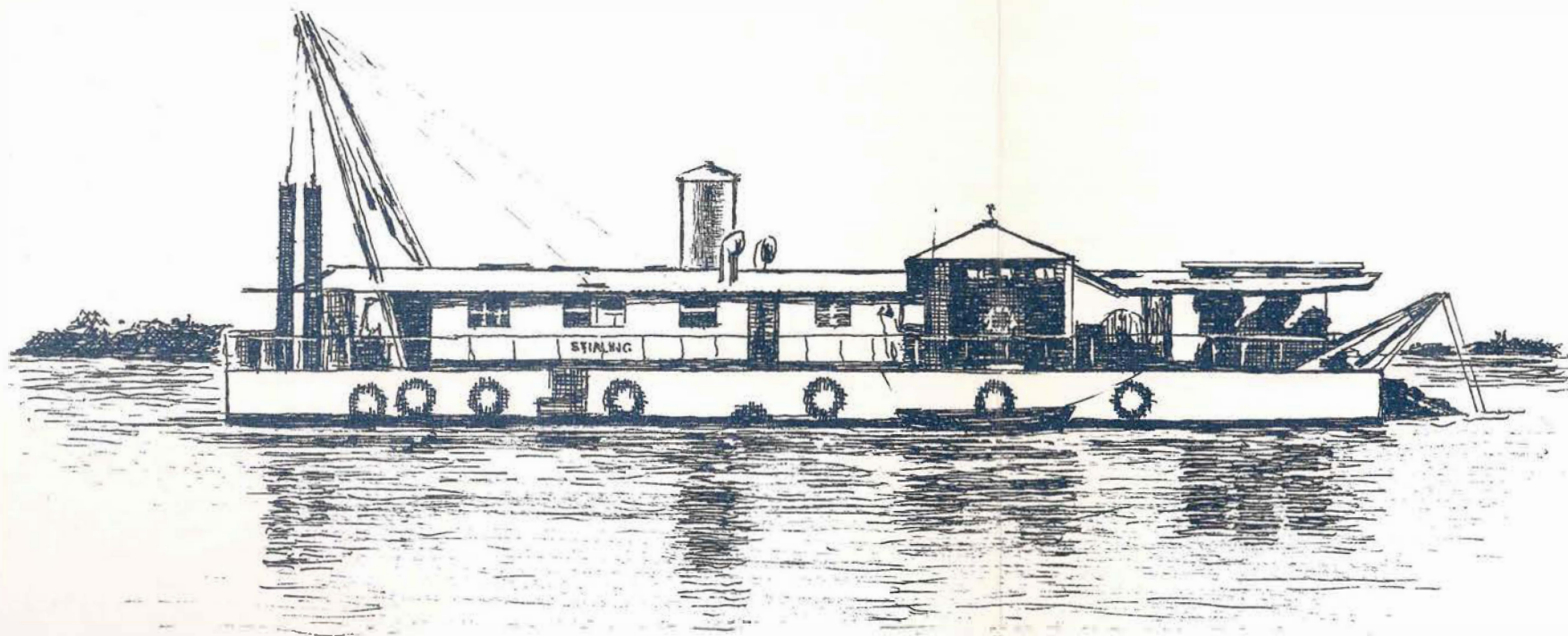
I would like to add a personal note:

On the eve of my retirement as Chairman of the Board, I look back with some satisfaction on what has been achieved since this timely Legislation was passed in 1958. There is still much to be done and the rapid growth of the Metropolitan Region demands that the Board continues to hold a close watching brief to ensure that urban development does not mar the beauty or purity of a river which is a natural and valuable heritage of the people of Western Australia; a river which must be a focal point in all future planning schemes.

Finally I would like to thank Members—both past and present—for their support over the years and to record their dedication to the task of river conservation. Likewise I pay tribute to the loyalty and efficiency of the Staff, each of whom has shown an enthusiasm for the cause and given their time unstintingly in an effort to improve the cleanliness of the foreshores and the purity of the waters.

R. J. BOND,  
Chairman.

Perth, W.A.,



At the outset it can be emphasised that the Legislation was timely and accepted universally by the Local Authorities within the Conservation Region. The increase in population in the Metropolitan area, the Metropolitan Region Planning Authority proposals, the expanded demand for water space for aquatic activities, the need for additional foreshore areas for public relaxation and enjoyment, and the upsurge in industrial activity have all combined to highlight the need for a single controlling Authority with statutory powers and a responsibility for river purity, beauty and orderly development.

The Board has approached its task with keen appreciation of the part which the Swan River and its tributaries play in the total picture of the Capital City's expansion, and of the immense amount of enjoyment and relaxation this beautiful stretch of water can give to thousands of citizens—as well as the favourable impression it leaves with interstate and overseas visitors.

As will be noted during the course of this report, the Board exercises the role of a watchdog and co-ordinator in addition to its major work of maintaining river purity and foreshore cleanliness.

In carrying out its statutory functions it must of necessity rely on a great deal of co-operation, not only from Local Authorities, Organisations and Government Departments represented on the Board, but also from a host of persons, from Clubs and Companies, who are directly or indirectly associated with river and foreshore usage.

Early opportunity is taken to express appreciation to all of them for assistance so readily given—which has made the task of the Board and its Staff much lighter than it would otherwise have been.

As the initial report is now out of print the following "History of River Control" is reprinted to provide a background in this report of the events leading up to the existing Legislation.

# introduction

"The necessity for some centralised control of the river has been realised for many years and the first move came when, in 1943, the then Director of Works, Mr R. J. (now Sir Russell) Dumas, with the Commodore of the Royal Perth Yacht Club and four other members formed a committee known as the Swan River Reference Committee. It was purely an advisory body constituted to co-ordinate the activities of a multitude of Authorities and Departments interested in some way with river usage, works and structures, planning and in the purity of the waters and cleanliness of the foreshores. Over the years the committee was gradually enlarged until it finally comprised fifteen members who acted in a voluntary capacity and devoted much personal time in dealing not only with problems associated with the river, but also in efforts to maintain the purity of the waters and the cleanliness of the beaches.

"This work was carried out in a co-operative way and it is to members' credit, that despite the absence of statutory authority, much was achieved and many points of pollution and contamination eliminated.

"The framework of the new Legislation was based on the experiences of the original committee and the Board is indeed fortunate in having had as its members most of those who had contributed advice and technical skills as members of the Swan River Reference Committee.

"Mention should be made to the fact that in May 1952, the Swan River Reference Committee appointed a sub-Committee, comprising the following members, to investigate the problem of pollution of the Swan River:—

W. S. Davidson, M.B., Ch.B., D.P.H.  
(Aberd.).

*Deputy Commissioner of Public Health  
(Convener).*

F. M. Kenworthy, B.E., LLB., A.M.I.C.E.,  
M.I.E. (Aust.).

*Chief Engineer,*

*Metropolitan Water Supply, Sewerage and  
Drainage Department.*

J. C. Hood, B.E.M., F.R.A.C.I.,  
*Deputy Government Analyst.*

"The terms of reference were:

- (a) Define pollution;
- (b) Suggest methods of control.

"The Sub-Committee undertook an enormous amount of research and enlisted the assistance of a number of experts in various sciences with the result that a most enlightening and valuable document has been produced—one which has had world-wide circulation.

"Many of the conclusions reached by the sub-committee have been adopted by the Board, and most of the recommendations have been incorporated in the existing Legislation".



# Constitution and Membership

The original Act, passed in 1958, provided for a Board of seventeen Members. The number was enlarged to nineteen Members on the passing of the Swan River Conservation Act Amendment in 1966. The additional two Members comprised a Biologist nominated by the Hon. Minister for Fisheries and Fauna, and an additional Member nominated by the Local Government Association of Western Australia. The former was appointed to afford advice on and to watch the interests of marine life in the River and its tributaries; the latter to represent the interests of the Local Government Association in the Canning River area—the Board's jurisdiction in the Canning River previously having been extended for a further mile upstream to the Nicholson Road Bridge.

Although the two appointments added, in point of numbers, to an already large Board, the extended representation has proved advantageous. The Board has continued to function smoothly—withstanding the large Membership—due in no small measure to the dedication and intense interest of Members and to the great amount of work done at Committee level.

All in all, the Board, as now constituted, is representative of all phases of river use and activity.



On the 30th June 1969, the personnel of the Board was:

Chairman	W. R. Courtney.
2 Members nominated by City of Perth	J. J. Edwards, <i>City Engineer</i> J. J. Higgins, <i>Councillor</i>
5 Members nominated by the Local Government Association—to represent the interests of Local Governing Authorities	W. P. Calnon, <i>Mayor, Town of Midland</i> E. Clark, <i>President, Shire of Canning</i> E. Wicks, <i>Councillor, Shire of Bassendean</i> G. L. Lithgo, <i>Councillor, City of Melville</i> E. S. Harrison, <i>Councillor, City of Nedlands</i>
1 Member nominated by the Associated Sporting Committee appointed under the National Fitness Act 1945—to represent the persons who use the waters or foreshores for recreation	R. O. Bestman
1 Member nominated by the W.A. Aquatic Council	W. E. Schulstad.
1 Member nominated by the Chamber of Manufacturers	J. A. Mattinson
8 Members nominated by the respective Ministers controlling the Departments concerned with works and activities on or associated with the river	B. K. Bowen, <i>Director, Dept. of Fisheries and Fauna</i> A. M. Fuller, <i>Asst. Manager, Harbour and Light Department</i> J. D. Gillespie, <i>Deputy Chairman, Engineer Harbours and Rivers, Public Works Department</i> R. S. Lugg (Dr.), <i>Public Health Dept.</i> D. Montgomery, <i>Metropolitan Water Supply, Sewerage and Drainage Board</i> P. F. Nelligan, <i>Asst. Surveyor General, Dept. of Lands and Surveys</i> L. W. Samuel (Dr.), <i>Director, Government Chemical Laboratories</i> V. L. Steffanoni, <i>Member of the Town Planning Board</i>

As might be expected over a span of eight years there have been considerable changes in Membership but it is interesting to record that five of the original Members appointed in 1959 are still on the Board representing the interests of the Authorities by which they were nominated.

Those who have served during the period under review and are not now Members include:

M. A. G. Anderson, 1959-64  
H. Camm, 1959-62  
T. A. Cleave, 1962-68  
C. E. Flower, 1959-68  
K. G. Forsyth, 1959-63  
J. H. Glowry (deceased) 1964-65  
E. C. Halse (deceased), 1962-64  
N. J. Henry, 1959-66  
R. M. Hillman, 1963-67  
N. G. Humphries, 1959-67  
L. A. Jones, 1959-60  
M. Kott, 1959-62  
W. J. Lucas, 1959-62  
F. L. W. Morison, 1959-63  
C. S. Paterson (deceased), 1959-67  
E. C. Smith, 1959-65  
C. M. Wright, 1960-61

It is not possible to particularise in respect of the services rendered by each. Suffice to say that each and every one contributed substantially to the work of the Board—particularly in the earlier formative years—and that those now living in retirement still maintain an active interest in the work of the Board and the maintenance of its aims and ideals. Those who have passed on leave as a memorial a record of achievement in the interests of the river and of community service.



## Legislation, Regulation, Areas of Control

The initial Act—Swan River Conservation Act 1958—has proved workable and effective in control. At the time of the introduction the Legislation was the first of its type in Australia and was framed on broad lines to give the Board wide powers—subject to the Minister and subject to appeals to the Minister and the Courts. The Act remained unchanged until 1966 when under the Swan River Conservation Act Amendment Act, two important amendments were passed:

**Membership** increased from 17 to 19 Members. This has been referred to earlier and further comment is not necessary except to say that the Board welcomed the additional representation and it has worked out well in practice.

**Reclamation.** Under the parent Act, any area of reclamation in excess of ten acres required Parliamentary approval. The Amendment reduced the permissive area, without Parliamentary sanction, to two acres—and then only with approval from the Board.

The Amendment was introduced following a public outcry after some river reclamation had been undertaken in Perth Water to provide for construction of the Narrows Bridge interchange. The Board supported the proposal for the Amendment and believes that it will provide an additional safeguard against any unnecessary restriction by reclamation of the waters of the Swan River and its tributaries.



The Board is appreciative of the fact that the Government has sought prior advice concerning any projects which need Parliamentary approval.

It is interesting to record that the measurement of the area of river subject to reclamation presented some problems in the drafting of the amended Legislation—the waters of the Swan being subject to tidal variation. The problems were overcome by including in the amendment a mid-tide level which would form the base for any survey undertaken to define and compute the area of water involved in any proposed reclamation project. It had the additional advantage that the foreshore line was also clearly established.

In broad concept the Act imposes a duty on the Board to maintain the waters and foreshores of the River and its tributaries (within the limits established by Proclamation) in a clean and pure condition. It provides for control of reclamation, structures in or over the waters and foreshores, and industrial and other effluent by requiring that any persons wishing to undertake such work shall only do so under the Authority of a Permit issued by the Board. The Act goes further and prescribes penalties for those who pollute the waters or undertake construction work or discharge effluent without a Permit—or not in conformity with the conditions of a Permit.

The Act also provides for the establishment of a top level Technical Advisory Committee which may be called on by the Board or the Minister for technical or professional advice on problems of major importance—particularly those affecting river purity, pollution and the fixing of standards etc. The Committee has not met frequently—due in some measure to the high level of professional advice available to the Board from its own Members. It has, however, rendered material assistance in the framing of the Regulations relating to standards, the critical examination of proposals for directing treated sewage effluent into the River, and in problems relating to the extension of the Conservation Region.

#### REGULATIONS

Regulations, approved by Parliament, were established in the West Australian *Government Gazette* (No. 42) on 15th May 1961. They lay down Board and administrative procedures, give broad outlines of acceptable standards and set out penalties for infringement of the Act.

#### AREA UNDER CONTROL

The area of water and foreshore under the control of the Conservation Board was established in the parent Act. Provision was made for alteration of the boundaries by Proclamation and on the 29th September 1964 the area



of control in the Canning River was extended from the original fixation (Kent Street Weir) to the Nicholson Road Bridge—a distance of about one mile.

The present boundaries are:

Swan River—*Fremantle Traffic Bridge upstream to the Middle Swan Bridge* (28 miles).

Canning River—*to Nicholson Road Bridge* (9 miles).

Helena River *to Scott Road Bridge* (7 miles).

The total area under Board jurisdiction is approximately 12,000 acres extending over approximately 44 lineal miles of water.

The reason for the mile extension in the Canning River was the prevalence of pondweed and the necessity for some de-snagging to bring a section of attractive water into good and usable condition. Metropolitan urban development on both banks of the Canning River in an upstream direction could well necessitate further extension of the boundary because population increase and industry could impair the purity and condition of the waters of the River and drains in the region. This problem is at present under active consideration.



## Finance and Administration

The Board has operated on a modest budget of between \$20,000 and \$30,000 per annum. It has maintained this low level because of the assistance it receives from local Authorities and Government Departments. Much of the expenditure in foreshore improvements, beach nourishment, dredging of navigation channels and construction of groynes to check erosion, is not reflected in the Board's accounts. Work of this nature is carried out and financed by the Public Works Department and the Board is grateful for the co-operation extended by the Department.

Likewise the sampling of river water, which is undertaken regularly—and extensively—is analysed free of charge by the Government Chemical Laboratories and monthly sampling of river swimming pools is undertaken by and at the cost of the Public Health Department.

In administration it is assisted by the Department of Lands and Surveys which provides aerial photographs and maps as required, and by the Public Works Department which provides first class office accommodation and meeting facilities.

The cost of the Board's activities is shared by the State Government and Local Authorities in the Conservation Region on the basis of two-thirds Government and one-third Local Authorities. The proportion payable by Local Authorities is split up



amongst the respective Authorities in the Region on the basis of shoreline and population. There are nineteen Authorities contributing to the scheme.

The following is a broad summary of expenditure since the inception of the Board:

	\$
1959-60—	3,378 (October 1959 to June 1960)
1960-61—	5,294
1961-62—	12,054
1962-63—	12,386
1963-64—	15,512
1964-65—	16,308
1965-66—	18,230
1966-67—	21,491
1967-68—	23,407
1968-69—	31,900

## ADMINISTRATION

### Board Functions

The Board meets every four weeks, undertakes many inspections and handles its projects and problems through Committees—which meet frequently. The following Committees are active:

*Works and Structures*—under the chairmanship of the Member nominated by the Minister controlling the Harbour and Light Department—examines and reports on all applications for permits for structures in, over or on the waters or foreshores; maintains close contact with all aquatic bodies; checks on the condition of all waterfront structures—particularly jetties and boat sheds; investigates proposals for dredging and reclamation; generally

furnishes the Board with technical advice concerning any or all of the above problems.

*Industrial*—under the chairmanship of the Member nominated by the Chamber of Manufacturers—examines and reports on all applications to discharge effluent into the Swan River and its tributaries—within the area of water which is under the Board's control; provides expert and technical advice on all problems relating to pollution and contamination; examines and reports on the results of periodic testing of river water; inspection of industrial premises and drains leading to the River—as required.

*Planning*—under the chairmanship of the Member nominated by the Minister controlling the Town Planning Department maintains close touch with the Metropolitan Region Planning Authority, the Town Planning Department and individual Local Authorities; examines every planning proposal submitted by appropriate Authorities with a view to ensuring River conservation and beauty; makes recommendations to the Board for River usage and foreshore development; examines all foreshore building projects to ensure they are suitably sited and of aesthetic appearance.

There is also a Waters and Foreshore Cleanliness Committee and an Administration Committee—both of which meet at irregular intervals because



most of the problems under these headings are handled administratively.

### **Staffing**

In earlier years when the Chairman held an executive position within the State Public Service, secretarial and typing assistance was rendered from within the Department he administered. The Board's thanks are extended to those who ably assisted in those formative years of its activities.

However, more recently the increasing pressures of work and responsibility brought about by a rapidly developing State, have necessitated the setting up of an independent establishment and the Staff now consists of a Secretary/Stenographer (Mrs. R. Priest), an Inspector (Mr. H. G. H. Roberts), an Assistant Inspector (Mr. B. J. O'Brien), and two permanent wages men in the field (Messrs. Carmelo and Calogero Lenzo). The Board would like to pay tribute to all for their efficiency, loyalty and dedication to the Board's work, and particularly mention that the two Field Hands have been with the Board since its inception—which is indicative of their interest in the work.

The part-time Chairman forms a link between the Board and the Staff, is responsible for press and public relations and deals with major matters of administration.

The Board would also desire to record its appreciation of the services rendered by the initial Inspector—Mr. Jack Pericles, who died in January 1967, after having given years of dedicated service to the Board. Mr. Pericles was a qualified Industrial Chemist and his professional knowledge combined with his enthusiasm for river conservation materially assisted the Board in its early efforts to establish its administration and carry out the functions set out in the Statute under which it operates.

The Board's administration headquarters are situated in the Government Offices in Havelock Street, West Perth and field activities are based at a Depot at Ellam Street, South Perth—this site having been made available by the Public Works Department, early this year.

Prior to this the Field Staff operated from the National Parks Depot at Matilda Bay and the Board would like to record its appreciation of these shared facilities.



## Board Activities

### **Maintenance of the Waters and Foreshores in a clean and healthy condition**

This involves constant cleaning of public beaches and foreshores to keep them free of weed and litter; clearing of debris and floating logs etc. from the waterways; special and emergent action in case of oil spillages or other undesirable accumulation of contaminating material. To undertake this work effectively the Board maintains two 4-wheel drive vehicles with ancillary equipment, a 19 ft. patrol launch equipped with a small crane and sundry items of specialised equipment developed for special purposes.

Maintenance is heavy because the vehicles, and much of the equipment, have to be used in shallow salt water.

One of the Board's major responsibilities is the removal of weed and algae from the beaches and shallow waters fronting the foreshores. The incidence of weed is greatest during the summer months when heatwave conditions and low tides cause the weed to be exposed and strong prevailing winds drive the decaying material on to the lee shores. During this period weed patrol is constantly undertaken and many tons of decaying weed and deleterious material are removed daily to the nearest rubbish disposal area.

Perhaps this aspect alone of the Board's work has justified the formation of a Statutory body. Previously the

*Four-wheel drive vehicle with rake attachment*







Oil on foreshore at South Perth—some 12 miles from source of pollution.  
 Photo by courtesy of West Australian Newspapers

De-snagging in the Helena River.  
 Snags are winched to the foreshore, cut up with a chain saw and burned.



responsibility was divided between nineteen Local Authorities who, with the best will in the world, were not always in a position to provide men and equipment to deal with the problem at short notice. Now they pay into a common fund and the responsibility rests with the Board which is geared to go into action immediately—not only with the equipment under its own control but also with the aid of private contractors on occasions when the magnitude of the task is beyond its resources.

The Board maintains an annual programme of de-snagging—particularly in the Upper Reaches of the Swan River—to remove fallen trees and logs washed into the stream during winter conditions. In the initial drive some years ago about 500 tons of snags were removed from the river upstream of the Causeway at East Perth and since that date approximately 100 tons have been removed annually—mainly in the months of September and October.

The object of this exercise is not only to remove hazards to navigation but also to ensure a free flowing stream. Care is taken to preserve the river banks and, when possible, fallen trees on the foreshore fringes are lopped rather than completely removed.

Some tree planting has been undertaken in the more sparse areas and in areas set apart for future public open space, but it has been found that vandalism is a real problem in the more remote



districts. Many trees have been uprooted and broken down before they have a chance to grow to any size.

Oil spillage has been a problem—as indeed it is throughout the world. Occasional minor spillages from industrial establishments into the river itself have been quickly cleaned and controlled but the main threat has been from vessels using the inner Fremantle harbour which is outside the Board's jurisdiction.

In this area two major spillages have occurred since the formation of the Board. In these cases incoming tides and strong on-shore winds have driven the polluting material many miles upstream—contaminating the public beaches and foreshores and fouling many hundreds of river craft moored at Yacht Clubs and on private moorings, up to a distance of six miles upstream from the Harbour.

The first of these spillages occurred in February 1965 when some 20,000 gallons of crude oil of high specific gravity were accidentally discharged from a vessel in Fremantle Harbour. "Operation Clean-up" cost the Board \$388 which was subsequently recovered from the owners of the ship.

The second spillage occurred on the 18th February 1968 when oil escaped from a lighter which capsized whilst servicing the Aircraft Carrier "Eagle". The escaping oil from this vessel travelled upstream almost 12 miles—nearly to Perth Water—causing serious pollution to many public beaches and

*Mopping up operations at Point Walter.*

*Photo by courtesy of West Australian Newspapers*



*Fremantle Port Authority tender breaking up oil film at Preston Point, with detergent sprays.*

*Photo by courtesy of West Australian Newspapers*



attractive foreshores, as well as fouling up many hundreds of moored craft.

Mopping-up operations took several weeks and the Board desires to place on record its appreciation for the assistance rendered by local Authorities in the areas affected. They responded promptly to an urgent call for men and equipment and their co-operation enabled the major part of the job to be completed quickly and effectively. The task of cleaning up the oil cost the Board approximately \$2000—which has not yet been recovered from the responsible source.

The Board has approached the Fremantle Port Authority suggesting the provision of some form of "boom" or other protective device which in the event of further spillage, could be placed in position to prevent oil being driven upstream by wind and current. It is hoped that some effective equipment will be provided at an early date.

### **Pollution**

This is bound up with industrial effluents and drains leading into the river from far and wide. The Act requires that any industrial or private undertaking discharging effluent or material directly or indirectly into the River or its tributaries requires a Permit from the Board; the Permits are reviewed annually. All applications are examined by the Industrial Committee which makes a recommendation to the Board for approval, conditional approval or refusal.

Standards have been set down in the Regulations. At present there are 27 permits current. Permit fees are nominal.

The River, of course, is a natural drainage basin and it is inevitable that undesirable material will find its way into the stream by way of drains and gullies.

Apart from this the River rises at Wickiepin—some 120 miles from Perth—and flows through farm lands and rich foreshore flats used for grazing so that in flood conditions fertilizers and animal manure are washed into the waters, encouraging weed growth and causing pollution.

Fortunately these problems occur during winter months when aquatic sports are not active and there is limited use of the waters.

All industrial establishments are subject to regular visits by the Inspector to ensure compliance with the conditions of the Permits and all drains leading to the river are frequently checked in company with Trade Waste Inspectors attached to the Metropolitan Water Supply, Sewerage and Drainage Board.

All swimming pools are tested monthly by the Public Health Department, samples analysed and results recorded—likewise the river is tested quarterly at 37 points by the Government Chemical Laboratories and the results recorded. A pattern of behaviour has been built up over many years and



the frequent testing enables prompt action to be taken should results indicate a falling away of the standards to any serious extent.

Industry has co-operated with the Board and the Nominee of the West Australian Chamber of Manufacturers has played no small part in establishing liaison between the Board and those seeking a permit, so that there is proper understanding of the Board's functions and powers.

Little difficulty has been experienced in dealing with new industry but some problems have been encountered in the case of establishments of long standing in close proximity to the river. Suffice to say that there has been a gradual but steady improvement in the quality of effluent from these factories.

#### **Jetties, Bridges and other Structures in and over the Waters**

The Act requires that any work of this nature either by Government or private interests requires a permit from the Board. Applications are dealt with by the Works and Structures Committee which includes a Representative of the Harbour and Light Department. All aspects are considered including quality of proposed structure, aesthetics, location etc.

There is some duplication of Legislation in regard to the jetty licensing and under the Jetties Act 1928, the Harbour and Light Department is responsible for issuing jetty licenses on a state-wide basis and fees are charged. In respect



*Drain leading to the River, showing contaminating agents.  
Prompt action is taken to trace the source of these effluents.*

*Oil and detergent from drain finding its way to Helena River flats.*





*These are some jetty remains the Board would hesitate to remove. They do not interfere with navigation and provide a resting place for the birds.*



*An example of an unregistered and dilapidated structure which requires upgrading or removal.*

of the area under Board control in the Swan, Canning and Helena Rivers, there is very close liaison between the Department and the Board to avoid overlapping and all applications and renewals are dealt with jointly.

The Board values the advice and assistance of the Board Member nominated by the Harbour and Light Department and his participation in the joint responsibility ensures that applications are dealt with promptly in accordance with co-ordinated policy. The Board does not charge permit fees in respect of these structures

The Board imposes a high standard set by the Public Works Department and each application is treated on its merits. All jetties, boatsheds and other structures in and over the water are licensed annually and before a permit is renewed the structure is inspected. Many renewals are subject to the structure being brought up to standard. At present there are 150 jetty structures covered by permit.

There were many hundreds of dilapidated and sub-standard structures existing when the Act came into operation. Many of these have been demolished and many others brought up to standard but there still remain many—particularly in the Upper Reaches—which required up-grading. These can only be dealt with progressively as and when the owners can be located. Licenses for new structures, to private individuals, are issued on a very restricted basis but priority is given to Yacht and Boating



Clubs wishing to improve their own internal harbour facilities.

Board policy, which has been adopted in respect of new jetty structures is:

1. No permit for structures in or over the water which provide for eating or living facilities.
2. Applications for permits for jetties and structures for boat storage and pens by Local Authorities, Yacht Clubs, Rowing Clubs and the like to be considered on their merits.
3. Applications by private individuals—
  - (a) No permit to be approved for any structure on or from a foreshore fronting a public reserve or road reserve;
  - (b) In respect of applications by persons owning blocks with water frontage, the Board does not favour the construction of private jetties.

It will examine each case on its merits and approve only in special circumstances on the broad basis of locality, width and depth of the stream, navigational hazards and the design and aesthetics of the structure.

In the upstream section of the River, where the waters are narrow and where many residential allotments have a title extending to the river foreshore, the Board favours a structure in the style of a land backed berth, or a small boat harbour cut into the foreshore land on the applicant's property—rather than the more common type of jetty

which can become a hazard to navigation and a trap for floating debris.

### **Reclamation, Dredging and Beach Nourishment**

As might be expected this is a very controversial issue and many sections of the community take an active interest in projects of this type. This is good because it indicates a public awareness of the value of the River and the part it plays in our very existence—an awareness of the importance of this beautiful stretch of water, which is, in fact, a national heritage. The Board is well aware of the views of sections of the public and agrees that work of this nature should be strictly limited and that approval should be given only in those cases of absolute necessity and where there is no acceptable or practical alternative. All applications are referred to the Board which, in its own right adjudicates on projects involving not more than two acres. Any area exceeding this, as previously mentioned, requires the approval of both Houses of Parliament—a procedure which demands the fullest investigation and gives Parliamentary Representatives an opportunity of expressing their own views and the views of the people they represent. Every application for reclamation coming before the Board is examined critically, not only from the angle of the purpose of the project, but also in the light of the locality, the effect on the River as a whole and on the condition of the water and beauty of the foreshores. The Board subscribes to the view that if, of necessity, an area



has to be reclaimed then an equal or greater area in some other locality should be dredged and opened up for public use and enjoyment. This policy has in fact been put into effect. Dredging in the Upper Reaches beyond the Causeway has resulted in the deepening and widening of the River in the Maylands area and future plans envisage that further substantial areas of water will become available for aquatic use as Public Works Department dredging programmes are proceeded with.

#### **Details of Reclamation and Beach nourishment projects undertaken since 1954**

##### *Kwinana Freeway, Narrows Bridge*

This comprised reclamation in Mounts Bay and Mill Point (68 acres) and strip reclamation from Mill Point to Canning Bridge (42 acres). This work was carried out between 1954 and 1959 before the constitution of the Board and therefore no comment is made on the project as a whole. Suffice to say that the extensive reclamation created an awareness in the public mind of the need to examine closely any project which tend to limit or reduce the water area of the Swan River or its tributaries—a responsibility which is now accepted by Parliament and/or the Board.

##### *South Perth Yacht Club*

The construction of the Freeway deprived this Club of its site on the South Perth side of the river and a new site was made available by reclaiming

an area on the opposite side of the river in the vicinity of Point Heathcote. This site has enabled the Club to extend its activities and facilities to a degree which would not have been possible had it remained in its original location. The dredging, carried out in 1957 in association with the reclamation, has provided an excellent mooring area for the Club. It is now a most attractive area graced by modern senior and junior Clubhouses which cater for a total membership of 1,779 and a boat register of 260 craft.

##### *Applecross*

The work undertaken in 1959 embraced 9.3 acres. It had two main objects in view. Firstly it eliminated a long approach to the jetty head and secondly it covered an extensive area of shallow ground which on occasions of low tide exposed banks of decomposed algae. Whilst the work was in progress opportunity was taken to provide sand for filling in adjacent swampy ground and also to renourish the beach eastwards towards Point Heathcote. The result has been the transformation of weedridden and swampy foreshore into a popular swimming and boating centre.

##### *East Fremantle-Preston Point*

This project was carried out in two stages—September/October 1961 and September/October 1963—with Board approval. It involved 6.5 acres. The main purpose was to provide for aquatic activities and the work has been justified by the patronage which the



foreshore areas enjoy. Now located on the new beach front are the Swan Yacht Club, the Fremantle Rowing Club, the Navy League and a commercial marina as well as two public recreational areas.

#### *Mitchell Freeway Interchange System*

This project carried out in 1964 involving 19 acres of reclamation in Perth Water received the endorsement of the Board and the approval of Parliament. Engineering wise it appeared to be an integral part of the Narrows Bridge complex for which there was no acceptable alternative. The Board regretted the loss of the water area which from a scenic point of view was attractive but the area was unusable for boating and swimming and the Board had many problems in maintaining it in a clean and tidy condition. It believes that plans now in course of preparation—which embrace a white sandy beach, a public jetty, lawns and gardens studded with lakes—will, when construction is completed, result in a very attractive setting for the Bridge and its approaches as well as improving the depth of the river and the condition of its foreshores.

#### *Other works of a minor nature*

In addition to the projects listed above the Public Works Department has had a continuous programme of river maintenance and improvement—most important of the new minor works are those relating to beach

nourishment which have been planned as a result of the liaison between the Department's representative on the Board and with the co-operation and interest of the relevant Local Authority. They involve very little, if any, reclamation and have the dual advantage of restoring by dredging badly eroded beaches and providing additional deep water for aquatic use. We are indeed fortunate to have on the river bed, such a big reserve of clean white sand. Amongst those projects undertaken since the inception of the Board are:

#### *W.A. Rowing Association Headquarters*

A small amount of reclamation was carried out in 1961 on the Mount Pleasant site of the river immediately upstream of the Canning Bridge. This work was carried out in conjunction with the dredging required to prepare a standard 2,000 metre rowing course for the Empire Games. The Association has constructed a new headquarters building on this site and the reclamation has eliminated some unsightly swampy ground in the area.

#### *Deepwater Point, Canning River*

Dredging was undertaken in 1962 to build up a low lying area and make it usable as a focal point for swimming, scouting and ski boat activities. The Melville City Council has since developed the reclaimed area to make it an attractive and functional site for aquatic sports.



#### *Point Walter*

This work was carried out in 1961 at the request and cost of the Melville City Council. Previously the beach at this resort was unattractive due to exposed rocks and weed. The reclamation has eliminated this and an excellent beach for boating and swimming activities now exists.

#### *Attadale*

Commenced in October 1963, and continued in 1964, this work was approved by the Melville City Council which made a contribution to its cost. Its purpose was to eliminate low-lying swampy land between the road and the river and is essentially fringe reclamation.

#### *Dalkeith*

A small amount of fringe reclamation was carried out to provide a sandy beach in front of the existing concrete wall. This was done in connection with the provision of a new site for the Perth Flying Squadron. Similar work was carried out at the Nedlands-Subiaco Yacht Club to facilitate handling of small yachts to and from the water to the Clubhouse. These small works were carried out in 1959-60 and have considerably improved the appearance and usage of these areas—as well as protecting the foreshore wall from damage caused by high tides and strong on-shore winds.

#### *Chidley Point*

A small amount of reclamation work was carried out in 1964 to cover rocks and

rushes and provide a beach as a base for operating speed boats and ski launching. It has proved to be a popular picnic and ski-ing area—especially since the completion of modern facilities provided by the Mosman Park Town Council.

#### *North Fremantle—Upstream from the Traffic Bridge*

This work was undertaken in 1963 with the object of improving the appearance of what was previously a very untidy foreshore. The majority of the material was placed above low water mark. One section adjacent to the Bridge has since been developed as a site for industry associated with Port operation and the section further upstream has served to renourish the beach in front of the existing playing area.

#### *Pelican Point*

Limited dredging undertaken in 1964 to restore the sand on badly eroded sections of this Point, which threatened eventually to destroy this natural bird sanctuary. Coupled with this work was the renourishment of the beach in Matilda Bay and the construction of a groyne to check the lateral drift of sand and to protect the foreshores utilised by the Yacht Clubs in this vicinity.

#### *Canning River, Riverton area*

Reference should be made to the noteworthy and functional dredging project undertaken by the Canning Shire in 1964. It had the dual effect of



~~providing a navigational channel and elevating lowlying worthless land which has since been developed as an housing estate with adequate public recreational areas adjacent to the river foreshore.~~

### **Dredging**

Other aspects of the Board's responsibilities such as dredging and beach nourishment ~~must not be confused with reclamation. Dredging is often "a must" particularly in the Upper Reaches~~ of the river where water depths have been reduced by accumulation of sand and silt brought down by winter rains. Progressive work over the past few years by the Public Works Department and a private contractor has resulted in an improvement in river depths enabling navigation of river craft with a draft of up to 3 ft. to the Middle Swan Bridge some 15 or 16 miles upstream from Perth. The resultant spoil has been used effectively to fill mosquito infested low lying land in close proximity to the foreshores, or, where suitable, the sand has been used for commercial purposes.

Dredging is currently being undertaken—~~again in the up-river areas—to improve the stream flow and alleviate flood problems during winter months~~ and this work will continue for many months under a project financed by the Public Works Department—a project which has approval from the Board and the support of the various Local Authorities in whose territories the work is being undertaken.

### **Beach Nourishment**

Over the years many of the popular Metropolitan beaches—particularly between Perth and Fremantle—have ~~become eroded exposing rocks and limestone outcrop which have become a hazard for swimmers and river craft and a trap for weed and algae.~~ With the co-operation of and at the cost of the Public Works Department and some Local Authorities these have been renourished with clean white sand dredged from adjacent banks and from deep water.

The new gleaming white beaches at Point Walter, Attadale, Nedlands, Applecross and Mosman Park—patronised by thousands of children and boating enthusiasts—provide visual evidence of the success of this exercise and also facilitate the removal of the weed and contaminating material.

### **Planning**

The River is an integral part of City and Suburban development. The growth of population, the increase in industrial activity and the ever increasing problem of provision of road systems to meet the challenge of the motor car all have some direct or indirect effect on River purity, beauty and usage. It is well therefore that a Nominee of the Planning Department is a Member of the Board. In addition to the contribution which he makes on a wide range of problems his specialised knowledge and his contacts enable him, as Chairman of



the Board's Planning Committee to keep in close touch with Metropolitan development and with planning schemes initiated by Government, Local Authority and private developers.

The Planning Committee has these problems constantly under review and also combines with the Metropolitan Planning Authority and the Town Planning Department in ensuring that adequate space is provided on all our foreshores for public use and enjoyment.

It is a fact that the water area of the Swan, Canning and Helena Rivers is supplemented by more than 3,600 acres of foreshore land—70 per cent of which is already in public ownership. The Board has sponsored the purchase by the Metropolitan Region Planning Authority of many acres of private foreshore land as and when areas have become available and it has received the fullest co-operation from an Authority which is appreciative of the need to reserve a maximum area for river protection and public use.

In this regard too, the Board welcomes a policy decision of the Town Planning Department which makes it mandatory for sub-dividers of large foreshore blocks to reserve a strip of land on the water front as open public space.

The Metropolitan Region Planning Authority, in association with the Board, the relevant Local Authorities and river users, has undertaken two research

projects. In April 1967 the Authority published a report "The Swan and Canning Rivers—a survey of the recreational resources and a study of the River recreation needs of the Perth people". The report was circulated to present the facts to all bodies which had a particular interest in the development or protection of the rivers and foreshores. The intention was to stimulate decision making by responsible Authorities and to give them the information necessary to furnish reasoned comments and proposals which could be included in a plan to be prepared by the Authority.

It was followed by the publication of the Plan in June 1968—a first class document setting out broad guide lines for river development and use over the next 30 years. It has been adopted by the Board, with some reservations—which will be further considered in detail when the time comes for the individual projects to be initiated.

### **Up-River Activities**

Much of the work described in the foregoing pages had been undertaken in the Swan River between Perth and Fremantle but there has been passing reference to some projects in the Upper Reaches of the Swan and Canning Rivers. The upstream section of the Swan extending from the Causeway to the Middle Swan Bridge; the Helena River from the confluence with the Swan to the Scott Street bridge and the



Canning River to the Nicholson Road Bridge, are comparatively narrow and winding and present far different problems—and need far different treatment—from those applying to the broad expanses of the main basin of the Swan between Perth and Fremantle.

The broad concept of Upper Swan improvements is to maintain the navigable channel for small craft, to continue to deslag fallen logs and timber from the stream bed and to combine with the Public Works Department in dredging projects which will widen the usable water and at the same time elevate some of the low lying areas of public open space adjoining the river banks. A project of this nature is now in course at Garvey Park in the Belmont Shire Council district, where a dredge is operating to create an island at the north-western tip of the Park and to re-direct the course of the river to improve the flow during winter rains.

Future projects envisaged include dredging in the vicinity of the Maylands Peninsula to widen and deepen the river and to elevate the Peninsula itself and the dredging of the Helena River from the point where it joins the Swan to the Great Eastern Highway Bridge at South Guildford—a distance of about one mile when the stream is narrow and clogged with weed and vegetation.

Considerable dredging and improvement work was undertaken by the Public

Works Department in the Maylands area in 1968-69 when the usable waters were substantially increased, a foreshore area provided for the Maylands Yacht Club and the low lying swampy ground on the Belmont Park bank was elevated to permit of future progressive improvement by the West Australian Turf Club. In the earlier years of its activities the Board pressed for and combined with the Harbour and Light Department and the Public Works Department for the marking of a channel in the Upper Reaches of the Swan and the port and starboard markers placed in position through the co-operation of those Departments—coupled with a limited amount of dredging—have enabled small craft to travel in safety to the Middle Swan Bridge. A shallow draft tourist ferry now operates in this section during the summer months and its passengers enjoy the beauty of the narrow reaches and changing vistas which open up with each bend in the river.

The Upper Reaches of the Helena River—beyond the Bridge at South Guildford—present a problem and need constant watching. There is little or no stream flow in the summer months and the course of the River is bordered by private land, much of which is used for grazing.

These conditions combine to encourage an accumulation of deleterious matter which finds its way into the main stream during winter floods. The Board periodically undertakes cleaning up



operations—including desnagging—but when the section below the Bridge is dredged and deepened there will be need to give closer and more frequent attention to the stream bed beyond—at least to the boundary of the Board's present jurisdiction.

Since the formation of the Board the improvements in the Canning River have been significant—at least as far as the Riverton Bridge.

In 1962 the Western Australian Rowing Association constructed new headquarters on the foreshore near Canning Bridge and the Public Works Department laid out a sheltered 2,000 metre course with practical and efficient markers. Co-operation between the Board, Melville City Council and relevant Government Departments resulted in the establishment of a launching ramp, parking areas and swimming jetties at Deepwater Point—which provide facilities for a variety of aquatic activities.

To ensure that there is no overlapping or clashing of interests the Aquatic Council of Western Australia has undertaken to co-ordinate sporting activities.

Further upstream as mentioned previously a dredging project undertaken by the Canning Shire Council at Riverton in 1964 has resulted in the creation of a navigable channel and the beneficial filling of low lying land

which has since become an attractive housing area flanked by a re-nourished beach and adequate public open space.

Beyond the Riverton Bridge the river has been left very much in its natural state. A limited amount of desnagging has been undertaken and experiments conducted for the elimination of an infestation of Canadian Pondweed (*Elodea Canadenses*). The Board is still wrestling with this problem and has enlisted the aid of the Public Works Department.

The Board policy for the Upper Reaches of the Canning River, like that of the Swan and Helena Rivers, is to preserve the river in its natural state as far as possible. The extent to which this can be achieved is dependent upon the setting aside of a maximum amount of public open space on the river foreshores and the trend of Metropolitan planning and development in this very large corridor.

Certain it is that the Board will have to maintain constant vigilance to ensure that industrial and residential development—which are bound to come—incorporate safeguards against pollution of the stream. In this area—as elsewhere—the river is a natural drainage basin and industrial establishments, even remote from the river course, could well effect the purity of the water.



## Changing Face of the River

The passage of time tends to dim memories and certainly obscures the sequence of events, so opportunity is taken to record some of the more important changes in the appearance of the river foreshores during the period covered by this Report.

Perhaps one of the most significant changes was the exodus from Perth Water of a number of aquatic clubs—due in no small measure to the rapid development of the Capital City area, the silting up of Perth Waters and the construction of the Narrows Bridge which made conditions difficult for the navigation of large sailing craft which have made their appearance in increasing numbers in recent years.

The exodus commenced in 1953, when the Royal Perth Yacht Club, which had occupied headquarters on the Perth foreshore since 1865, transferred to Matilda Bay—a truly bold decision in those days. The transfer paid off handsomely and the Club now not only has modern and aesthetically attractive senior and junior premises in Matilda Bay, but also practical and serviceable facilities catering for the many classes of yachts on its register.

Other transfers to Matilda Bay have been the Perth Dinghy Club in 1960—subsequently renamed the “14ft. Sailing Club”; the Perth Flying Squadron which occupied wooden premises at the foot of William Street since 1897 transferred to the Nedlands foreshore in 1962 and the new premises fronting





*The old Perth Dinghy Club premises on the City waterfront before removal in 1960—an old building of historic interest but falling into disrepair.*

a wide expanse of open water has given the Club a new lease of life.

Another departure from Perth Water was the building occupied by the A.N.A. (Australian Native Association) Aquatic Club. There was no transfer in this case; the premises were burned to water level in 1962 after having stood as a landmark for some 40 years.

The only two remaining buildings occupied by active Rowing Clubs still serve a useful purpose but the Board envisages that in the future these will be demolished to make way for modern Rowing Headquarters with ready access to the less congested waters adjacent to the City centre.

A significant change has taken place on the eastern bank of the river immediately upstream from the Causeway. For some 25 or 30 years this important approach to the Capital City was marred aesthetically by an untidy, muddy foreshore, littered with rubbish and decaying vegetation. The Board played a leading role in co-ordinating Local Authority and Government interests with the result that a new shoreline has been established, the area filled with dredged material from the river; it will soon be grassed and beautified by Perth City Council and a section will become the headquarters of the Water Ski Association. It will be known as "Paterson Park" in honour of the late City Engineer who was a Member of the Board, who took a keen interest in originating the scheme and bringing it to fruition.



Further downstream at Crawley—on the foreshore below Mount Eliza—the Perth City River Swimming Baths, known as “Crawley Baths” were demolished in 1964 after serving the needs of the community for approximately 50 years. They were not replaced because of the erection of modern swimming pool facilities at Beatty Park.

It is interesting to record that the Crawley Baths replaced an old structure known as the “City Baths”, which were erected on the foreshore between Barrack and William Streets in 1897 and removed in 1920. The Crawley Baths—opened by the then Hon. Premier Mr. John Scaddan on 7th February 1914—became the venue for aquatic sports. Many tens of thousands of school children learned to swim in these baths—both under the “Learn to Swim” scheme and privately. The Baths were also used extensively for water polo.

Overall attendance figures are not available for the full period of operation of Crawley Baths but it is known that for the ten years 1953-1963 an estimated 2,500,000 passed through the turnstiles. As a matter of interest the original admission charges were Adults 3d (threepence), Children 1d (one penny).

A little further downstream, Crawley Bay—now known as Matilda Bay—has had a face lift. This popular area, controlled by the National Parks Board, provides relaxation, swimming and

*Old Matilda Bay tearooms in course of demolition.*



*“Matilda” Restaurant completed in 1968.*



aquatic activities for many thousands of citizens during the summer months. The beauty of the Reserve has been enhanced and the aquatic activities extended by the Royal Perth Yacht Club, the 14ft. Dinghy Club (both transferred from Perth Water), and the new premises of the Mounts Bay Sailing Club and the Sea Scouts.

More recently the Board demolished the old timber framed tearooms which had stood for over 40 years and had been managed and owned for 30 years of that period by a Mr. Ron Hill—firstly as a boat hiring establishment and latterly as a tearooms.

The National Parks Board has leased an area for a modern restaurant and tearooms, conducted conjointly—during the summer months—with a kiosk catering for light meals.

These new buildings blend with the surroundings and provide for the needs of the patrons of the Reserve as well as those who come from far and near to enjoy a meal in a relaxed and attractive environment. It will be seen that the new structure is set on the foreshore fronting a white sandy beach. The Board's experience is that whilst structures of this type over the water are aesthetically acceptable, they present many problems in maintaining the surrounding waters in a clean and attractive condition. Litter seems inevitably to find its way into the river—to such an extent

that broken crockery and glass is still making its appearance on the river bed in close proximity to the site of the original tearooms.

Two small areas in Mosman Bay are worthy of mention—if only to indicate what can be done to make small isolated spots attractive. The Coombes Estate, a high class residential area built on the face of and below high limestone cliffs at Mosman Bay, terminates in a cul-de-sac on the foreshore, which is attractively set out with trees and lawn and maintained in a spirit of co-operation between the Town Council and the local residents. Previously this area was strewn with rocks and rubble. It is a striking example of how residential development and foreshore improvement can go hand in hand.

A short distance further south—at Chidley Point—a Local Authority project has resulted in an attractive ski and picnic area. The water surrounding this Point is "a natural" for ski-ing and the Council has provided an access road, toilet and picnic facilities in a section of the river which now attracts many hundreds of ski-ing enthusiasts.

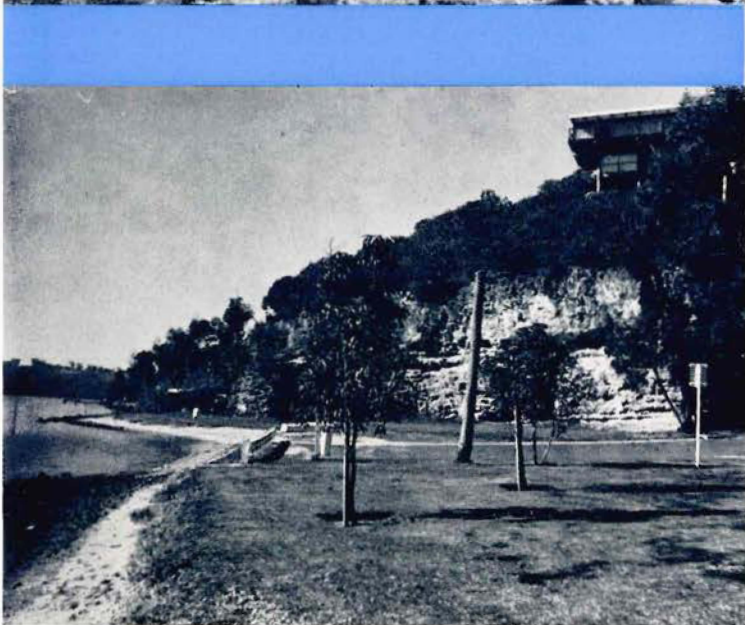
Big changes have been made—and further redevelopment is proposed—in the area immediately upstream of the Fremantle Traffic Bridge. This section of the river is just inside the western boundary of the Board's territory.



*Foreshore—Coombes Estate, Mosman Bay after demolition of old privately owned boatshed and before re-development.*



Reference has already been made to the dredging and beach restoration on the northern shoreline where the area has been reserved for industry associated with harbour operation. On the south side—following investigation by and consultation with appropriate departments and authorities—provision is being made for the transfer of the Rottnest Ferry Berths from an unsuitable location in the Inner Harbour to a point immediately upstream from the Traffic Bridge. Redevelopment will be progressive and the end result will be a functional terminal incorporating a parking area and attractive surrounds which will replace many of the unsightly structures now in the area.



*The same area after re-development.*



## Appeals

The Act provides that any person aggrieved by a refusal of the Board to grant a permit or by a condition imposed by the Board may appeal to the Minister and if still dissatisfied with the Minister's decision may appeal to a Judge of the Supreme Court. There have been no appeals in the latter category.

There have been only three appeals to the Minister since the inception of the Board. The first related to a small private jetty in Freshwater Bay, which existed prior to the formation of the Board. A permit was refused in 1962 on the grounds that the jetty served no useful purpose and formed an obstruction in an area which the Board desired to improve and in which other dilapidated structures had been demolished. The Minister allowed the appeal in two successive years on the understanding that the owner would make alternative arrangements. The jetty remained until 1966 when, on the decease of the owner, relatives agreed to its demolition.

In 1967 a Company interested in developing a housing estate in close proximity to the River in the narrow reaches upstream of the Causeway, applied for a permit to discharge a treated effluent from a package plant into the Swan River. The Board refused the application on the grounds that it considered this effluent would constitute

pollution under the terms of the Act and was mindful, also, that any approval would set a precedent for similar types of installations. After reference to the Rivers and Waters Technical Advisory Committee, the Hon. Minister agreed with the Board's refusal and dismissed the appeal.

The third appeal related to an application made in 1967 by the State Electricity Commission for permission to construct pylons on the foreshores in the vicinity of Preston Point, to carry power lines across the River. The Board refused the application on aesthetic grounds believing that the beauty of the River would be marred by structures of that nature—and feeling too that the precedent set could open the way for other similar crossings.

The Board suggested alternatives such as an underwater crossing or a route to carry the line over the existing bridge, but the former was not agreed to on the grounds of financial considerations and the latter because of impracticability. The State Electricity Commission appealed to the Minister who upheld the appeal.



## Co-operative Undertakings

And finally reference might be made to the part which the Swan River Conservation Board plays in conservation generally in Western Australia. As can well be expected problems similar to those experienced by the Board arise in other localities and the Board is called upon for advice and assistance—which is readily given.

In 1965 some troubles were experienced in the Leschenault Estuary at Bunbury, and an ad-hoc Committee was formed consisting of Representatives of the Local Authorities with jurisdiction in the Region, Government Departments having control of or undertaking work in the Estuary, the Bunbury Harbour Board and Chamber of Commerce. The Committee is chaired by the Chairman of the Swan River Conservation Board. It meets regularly and plays an advisory role in any projects which might affect the purity of the waters, the attractiveness of the foreshores and the public recreation. The Committee has functioned smoothly and co-operatively; its co-ordinating influence has resulted in many beneficial improvements.

The Board is also represented on an Advisory Committee formed to protect the purity of the waters in Cockburn

Sound. The link is through the recently appointed Chairman, Mr. W. R. Courtney, who as President of the Aquatic Council, co-operates with a local Committee in keeping a watch over the waters of the Sound, suggesting means whereby they can be improved and, in particular, maintaining a liaison between the aquatic interests and the commercial use of the outer harbour.

All these extraneous associations tend to point to the long term possibility of some overall Board on a State-wide level which can exercise some control over all waterways in Western Australia—advised by subsidiary Boards or local Committees in each locality to meet the particular problems of a particular sector.



## Conclusion

This report has been compiled and written by Mr. R. J. Bond, I.S.O., since his retirement as Chairman of the Board in November, 1968.

Mr. Bond was Chairman from the inception of the Board until his retirement and there is no doubt that the successful operation over the years and the great amount of very fine works accomplished have been largely due to his undoubted flair for organisation and negotiation.

His resignation was regretted by all Members of the Board and the many organisations which have close liaison with the Board.

W. R. COURTNEY,  
*Chairman.*