# SWAN RIVER TRUST

# Review of the Swan River Management Strategy

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Swan River Trust Report No 19 1994







## SWAN RIVER TRUST

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## REVIEW OF THE SWAN RIVER MANAGEMENT STRATEGY

## A report to the Minister for the Environment

Prepared by Greg Davis on behalf of the Swan River Trust

> Swan River Trust 216 St Georges Terrace Perth WA 6000

> > Report No 19 November 1994

### ACKNOWLEDGMENTS

The Trust would like to thank all local government authorities for their continuing effort to protect the river environment and attending the meetings to review the Strategy.

The Trust also appreciates the assistance of other state government departments in compiling this report.

Thanks are expressed to Beverley Thurlow for her assistance in preparing and reviewing the document.

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#### Minister's Foreword

I have received this report from the Chairman of the Swan River Trust outlining how the Swan River Management Strategy has been implemented by the Trust and other agencies over the last five years. I consider that all agencies have done an excellent job in implementing the Strategy and would like to take this opportunity to congratulate them.

Implementing the Strategy is only one in a long list of achievements that the Trust has undertaken since its inception in 1989. The release of the review is timely given the onset of summer and the focus that is accorded the river during the prime recreational season. The State Government is committed to proper management of the Swan River, a precious asset of the people of Western Australia. Government has recently shown its support for management of the rivers with its announcement of funding for the Swan Canning Cleanup Program over the next five years.



Because of the importance of the Swan River Management Strategy to the protection and enhancement of the Swan and Canning Rivers I and the Trust have decided to release the report and make it available to the community. I encourage the public to read the document and support the Trust as it manages our rivers in the years to come.

Kevin Minson MLA Minister for the Environment

#### Chairman's Foreword



As the new Chairman of the Swan River would like to take Trust. T this opportunity to congratulate previous Chairmen and members of the Trust for their contribution to managing the Swan River and implementing the Swan River Management Strategy. Since the Trust's establishment, Mr Jack Howson and Hon. Ron Davies, AM, have chaired the Trust. They have both been committed to ensuring the Trust coordinates implementation of the 259 recommendations of the Strategy.

At its first meeting in January 1989 the Trust discussed how it would ensure that the Strategy was implemented. A committee was formed to oversee this task and much progress has since been made. In July 1993 the Trust resolved to undertake a thorough review of the strategy document involving consultation with all agencies identified as integral to river management. This included the twenty local government authorities with river frontages.

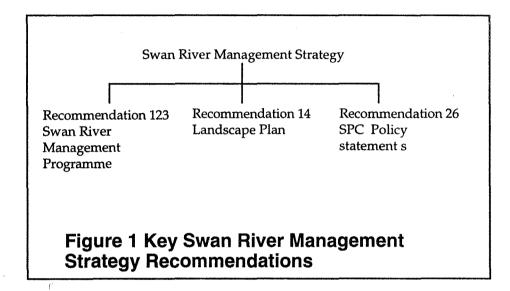
It is often the case that with documents such as the Management Strategy no action is undertaken to implement their recommendations. I am pleased to report to the Minister for the Environment that, not only the Swan River Trust but also the many local government authorities, State Government agencies and community groups, have been successful in advancing the implementation of the Strategy. All these groups must be commended for their cooperation in managing this vital resource.

G.F. Totterdell Chairman

#### SUMMARY AND RECOMMENDATIONS

In January 1989 Cabinet endorsed the Swan River Management Strategy (SRMS) and released it as the Government Policy on the Swan and Canning Rivers. In this document the Swan River Trust is identified as the body responsible for co-ordinating and ensuring implementation of the Strategy.

The Strategy includes recommendations for the development of a more detailed management programme, Statements of Planning Policy (pursuant the Town Planning and Development Act) and a landscape plan (see below).



As part of the Trust's normal auditing programme, the Swan River Management Strategy has been reviewed over the last twelve months. The auditing process involved establishing the status of each of the Strategy's 259 recommendations. It required extensive consultation with all state and local government agencies.

The review confirms that the Trust has been very successful in furthering the implementation of the Strategy. The table in Section 5 details the change in the status of all recommendations over the last five years.

The review process also confirmsed that the 'vision for the river' contained in the Strategy is still relevant and that the community, and local and state government agencies are all committed to the protection and enhancement of the river system.

However none of the three key recommendations have been fully implemented. The advancement of these recommendations in seen as a priority.

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### RECOMMENDATIONS

The following recommendations were identified as the highest priority during the review. Many more recommendations are listed in Section 4.

## 1. Allocate resources and progress as a high priority the following general recommendations:

- (i) 123. Prepare a detailed management programme for the river environment. This should include development of statutory and non-statutory policies and agreements between the SRT and other agencies to manage particular areas of the river environment.
- (ii) 14. Prepare an overall landscape plan in order to coordinate landscape enhancement proposals. This should include the formation of local government advisory groups, responsible for ensuring consistency of landscape plans according to the management area.
- (iii) 26. Prepare an SPP policy statement guiding development on and adjacent to river foreshore Parks and Recreation Reservations. This will provide local government authorities with a basis for a consistent approach to development control.

The policy should include:

- Appropriate land use controls.
- Building design and landscaping guidelines.
- Traffic, vehicular parking and parking considerations.
- Flood management and protection.
- Pollution and erosion control.
- and the policy should set out clearly:
- Development application and consultation procedures.
- Criteria to be used in assessment of applications.

## 2. Allocate resources and progress as next highest priority the following general recommendations:

- (i) 3. Undertake accurate boundary definition of all existing Parks and Recreation Reservations over the river foreshore and amend the MRS accordingly.
- (ii) 27. Prepare a set of model town planning scheme provisions relating to use and development within the river environment for incorporation within local government authority town planning schemes.
- (iii) 129. Extend the Swan River Trust Management Area to include any extension to the regional Parks and Recreation Reservation adjacent to the river to enable the SRT to assist with the management and preparation of plans for land vested in other authorities.
- 3. Develop implementation plans for all area recommendations within each local government authority.
- 4. Prioritise and prepare an implementation plan for all other recommendations listed in Section 4.
- 5 Continue to review and audit recommendations contained within the Strategy. A more comprehensive review should be undertaken in five years.

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#### 1. BACKGROUND

The Swan and Canning Rivers and their tributaries are an important resource of the Perth Metropolitan Region. The capacity of the river environment to meet the desires and expectations of the growing urban population is limited. Management of this resource requires a coordinated approach by the various government and community bodies concerned with particular aspects of water and land use.

In the past these responsibilities were not well coordinated, leading to inconsistencies, overlaps and gaps, both in management and planning activities. As a result the Government announced in 1986 the establishment of two studies.

The first involved the establishment of the Swan River Management Strategy Task Force to oversee the development of a management strategy to protect the river environment while preserving access to, and use and enjoyment of the area for current and future generations. The Task Force comprised of representatives from the State Planning Commission, Local Government, Department of Marine and Harbours, Department of Land Administration, Waterways Commission, Environmental Protection Authority, Water Authority of Western Australia, Fisheries Department, Department of Conservation and Land Management, Department of Premier and Cabinet and the community. It was chaired by the then Director of Waterways Protection. The Draft Swan River Management Strategy was released by the Government for public comment in September 1987.

The second involved an independent Legislative and Administrative Review of procedures that affect the rivers. After consideration of this report the Government announced in September 1987 that future coordination of development on the Swan and Canning Rivers would be the responsibility of the Swan River Trust.

The replacement of the Swan River Management Authority with the Swan River Trust together with the consideration of public comments warranted a number of amendments to the final management strategy. This was released in September 1987 along with a summary of public submissions.

The Swan River Management Strategy provides the Government and people of Western Australia with a framework for coordinated action to protect the river environment while preserving public access to and enjoyment of the area for current and future generations. The Strategy aims to ensure the river stays "alive" and to the greatest possible extent, its integrity maintained. One way of doing this is to ensure that there is an onus on proponents of change to justify it in relation to the beneficial uses of the river.

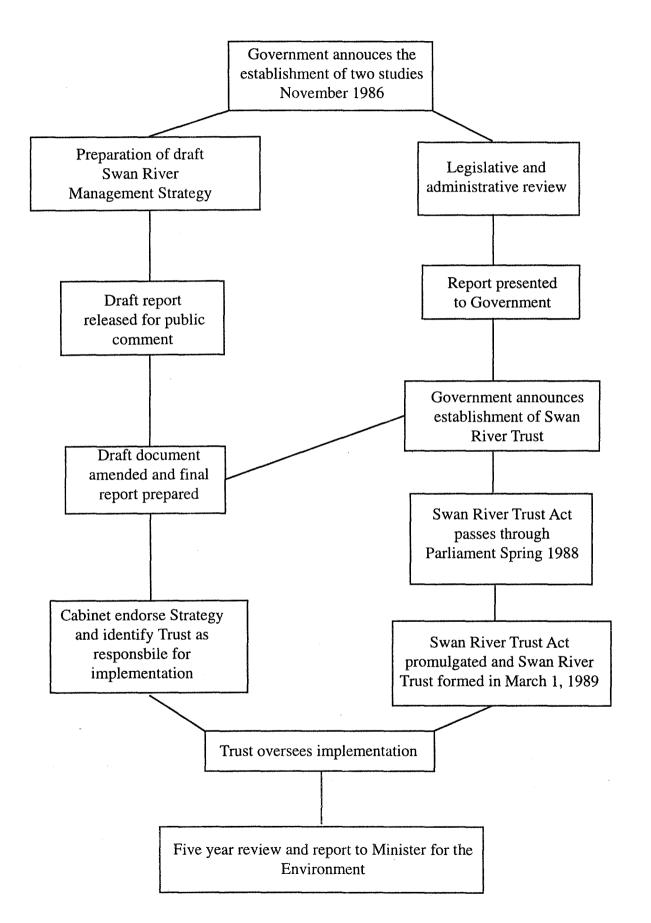
The Strategy is a general document which guides the development of more specific policies, management and landscape plans.

In January 1989 Cabinet endorsed the Swan River Management Strategy (SRMS) and released it as the Government Policy on the Swan and Canning Rivers. In this document the Swan River Trust is identified as the body responsible for co-ordinating the implementation of the Strategy.

The Strategy contains 259 recommendations, some of which require consultation, or the staged allocation of resources.

At its first meeting in January 1989 the Trust raised the question of implementation of the Strategy. It has continued since then to work towards implementation of the large number of recommendations.

#### FORMULATION AND IMPLEMENTATION of the SWAN RIVER MANAGEMENT STRATEGY



The Strategy has proved a sound base over the past five years to guide the Trust's operations. In this sense the Strategy has been used as a defacto management programme. This review of the Strategy will provide the basis for the management programme required under Part 3 of the Swan River Trust Act.

## 2. AIM

It is the aim of this study to report to the community and government on the implementation of the Swan River Management Strategy. The strategy is the most important document pertaining to management of the Swan and Canning River system.

## 3. METHODOLOGY

As part of the Trust's normal auditing programme, the Swan River Management Strategy has been reviewed over the last twelve months. The auditing process involved establishing the status of each of the recommendations. This was achieved by:

- 1. internal consultation;
- 2. requesting advice from the lead agency where nominated;
- 3. reviewing the 133 general recommendations at a series of meetings by the full Trust; and
- 4. reviewing the 125 area recommendations during a series of meetings held with all the relevant local government authorities.

Recommendations were categorised depending on the amount of work that had occurred. These are:

- (i) Implemented: A one-off recommendation that is complete eg the promulgation of the SRT Act or the preparation of a management plan.
- (ii) Ongoing: Recommendations that are implemented in an ongoing manner, usually in accordance with the Act, SRMS or policies eg acquisition of foreshore reserves.
- (iii), Initiated: Implementation of the recommendation has commenced eg the formulation of a landscape plan for the river.
- (iv) Seeking advice: The status of the recommendation is not known and advice has been requested from the lead agency.
- (v) No action: No action has been initiated to implement the recommendation. This may be for a number of reasons including lack of resources or in some instances the recommendation may be no longer relevant.

#### 4. STRATEGY RECOMMENDATIONS

All recommendations are listed in numerical order. Agencies responsible for implementation of the recommendation are identified in brackets. The lead agency is the first listed. A fold out sheet of abbreviations is located at the back of the document.

The following departments have had a name change since the Strategy was published. These are:

Department of Environmental Protection (DEP) formerly Environmental Protection Authority (EPA).

Department of Transport (DOT) formerly Department of Marine and Harbours (DMH).

State Planning Commission (SPC) formerly Department of Planning and Urban Development (DPUD).

Ministry of Sport and Recreation (MSR) formerly Department of Sport and Recreation (DSR).

Perth City Council has been split into four local authorities however they are still represented by one representative on the Trust. Therefore all recommendations relating to PCC have remained the same.

Chapter 5 General Recommendations are listed first and numbered from 1 to 133 inclusive. Chapter 6 Area Recommendations are numbered from A1 to A126. The review is best read with reference to the original document. These are still available from the Trust although numbers are limited.

Recommendations for further action are marked in **bold** next to the appropriate recommendation.

A large number of management plans, studies and committees are discussed in the document. Where documents have been published they are listed in Section 7 References. Other projects in draft form are listed in Appendices 1. Appendix 2 lists committees that the Trust is a participant on.

#### 4.1 General recommendations

#### LAND USE AND RIVER PLANNING FORESHORE RESERVES Treat all the foreshore reserves and 1. Implemented (SRT Act) - The "long title" the waterways of the Swan and of the Act clearly states this. Canning Rivers as a single entity for the purposes of planning and management (DPUD, SRT). Undertake studies to determine the Initiated - The Trust and the Department 2. need for and location of Parks and of Planning and Urban Development Recreation Reservation over river conducted a joint study in this regard for the Canning, Southern and Wungong foreshores not currently in the MRS and amend MRS accordingly Rivers in the City of Armadale. An area (DPUD, SRT, LGA). on the Southern River recommended for inclusion into the Parks and Recreation Reservation was recently reserved for this purpose in a MRS amendment. Initiated - SRT undertakes this on an ad-Undertake accurate boundary 3. definition of all existing Parks and hoc basis in conjunction with the Recreation Reservations over the statutory applications process. However there is a need to assemble this river foreshore and amend MRS information and identify gaps in the data. accordingly (DPUD). It is recommended that this project proceed as a high priority. 4. Establish a priority order for Ongoing - DPUD assesses priorities acquiring foreshore land in the MRS annually. Parks and Recreation Reservation in urban areas (DPUD). It is recommended that the Trust develop its own priorities and approach DPUD for incorporation of these into DPUD's annual list of priorities. 5. Designate areas suitable for Initiated eg Leighton Peninsula, Canning declaration as river Regional Parks, Wetlands, Armadale Regional Open riverside recreation nodes. Space Study. conservation areas and linear parks (DPUD, LGA, SRT, CALM).

6.	Develop foreshore reserves designated for recreational use to facilitate water-oriented activities or to enhance use of the river. Where adjacent waters are not suitable for water-oriented activities alternative activities should be considered (LGA, SRT, MSR, DPUD, DOT).	Ongoing implementation in accordance with the SRT Act. Investigate further during preparation of the Swan River Management Programme (SRMP).
7.	Determine width and shape of foreshore reserves taking into account the following criteria: (DPUD, SRT). Future land use. Conservation of natural ecosystems. Educational value. Recreation links, including linear parks. The flood plain. Heritage values Landscape conservation. Management access. Public access. Local and regional significance. Erosion and accretion processes. Wildlife corridors.	Ongoing implementation in accordance with SRT Act. Always a major consideration when preparing management planning documents for sections of foreshore.
8.	Identify management agencies for all foreshore reserves, including conservation areas (DPUD, LGA, CALM, SRT).	Ongoing - Management agencies are identified as management plans are prepared. The Trust's policy specifies the agencies it believes are the appropriate managers for different reserve types. Investigate further during preparation of the Swan River Management Programme (SRMP).
9.	Continue examination of alternatives to acquisition for land adjacent to water courses within rural areas, or where cost of land precludes acquisition (DPUD).	Initiated - Subject of ongoing talks with DPUD. Acquisition is still the main mechanism. Investigate the potential to acquire reserved land on change of ownership (SRT). Prepare a position paper on this issue (SRT).

10. Plan service corridors to provide for the combined needs of utilities so that all services cross the river at fewer locations, where the impact can be minimised (DPUD, and all relevant servicing agencies).	Ongoing implementation in accordance with SRT Act and staff advice on structure plans.
11. Seek alternative alignments for new utility services which do not require a route through foreshores (DPUD, and all relevant servicing agencies).	As above
LANDSCAPE PROTECTION	
12. Determine a suitable means of land use control which enables the character of rural areas to be maintained while avoiding the necessity for public authorities purchase land (DPUD)	Some local government authorities are addressing this issue in their rural strategies. See 9.
13. Incorporate special zones into the MRS and Local Government Town Planning Schemes to give protection to valued landscapes, particularly in built-up areas where high land prices preclude acquisition, and in rural areas where much of the flood plain may remain in private ownership (DPUD, LGA).	Ongoing implementation - Will be addressed during preparation of Swan River Landscape Plan. The SRT encourages LGA's to incorporate landscape protection clauses within Town Planning Scheme's, eg City of Armadale.
14. Prepare an overall landscape plan in order to coordinate landscape enhancement proposals. This should include the formation of local government advisory groups, responsible for ensuring consistency of landscape plans according to the Management Areas defined in Map 2 (LGA, DPUD, SRT).	Initiated - A Landscape Plan for the Swan River is in preparation. A study brief for the preparation of model town planning scheme (as part of the landscape study) has been circulated to LGA's for comment.
15. Formulate landscape guidelines in consultation with the Australian Institute of Landscape Architects. Guidelines should include preserving existing vegetation, regeneration of native flora, preservation of an replanting of significant stands of exotic trees (DPUD, WAWA, TS).	Initiated (see 14).

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16.	Develop site design criteria and development guidelines for recreation nodes (DPUD, SRT). Specific aspects that should be considered are:	Initiated (see 14).
-	Recreation nodes should be complementary to each other.	
-	Site design should provide a variety of onshore and offshore activities.	
-	Interpretative and educational facilities.	
-	A variety of modes of access, ie. boat, vehicle, foot.	
-	Toilet facilities and car parking.	
-	Imaginative broad spectrum recreational opportunities, eg. mazes, giant chess sets, bridle paths, interpretative play equipment, water play grounds, particularly where adjacent waters are not suitable for activities.	
17.	Control advertising within the Management Area in accordance with the SRT Act (SRT).	Ongoing implementation in accordance with the SRT Act. Advertising hoardings are developments pursuant the Act.
		A draft signage policy is in preparation by the Trust.
PU	BLIC ACCESS	
18.	Continue the practice of reserving and acquiring (where possible) river foreshore land to provide public access (DPUD).	Ongoing implementation in accordance with the SRT Act and when providing advice to the DPUD on subdivision proposals and Metropolitan Region Scheme amendments.
19.	Investigate the feasibility of entering into agreement with private land owners to ensure the right of public access, while protecting the rights of land owners, and achieving satisfactory public liability	Initiated: The Draft Freshwater Bay Management Plan has recommendations regarding this. This plan has been prepared by the Trust.
	arrangements (DPUD).	Bike West is negotiating with private owners near Saint Annes to allow a Dual use path (DUP).

20.	Restrict public access in environmentally sensitive wetlands and other conservation ares according to management plans (CALM, DPUD, LGA, SRT).	Ongoing implementation in accordance with SRT Act and preparation and assessment of management plans (See Appendix 1 for list of plans to date). The Trust considers there is an ongoing need for public education in this regard.
21.	Complete dual-use paths around the river in consultation with relevant agencies. Design paths to: (DLG, LGA, SRT) Be set back from the river's edge where possible. Avoid environmentally sensitive areas (eg. System 6 Recommendations). Avoid unsuitable topography where construction costs are high. Avoid existing and planned foreshore developments. Avoid isolating areas of the foreshore from adjacent parklands. Avoid destruction of native vegetation. Detour away from the foreshore to other areas of scenic, historic or scientific interest.	Ongoing implementation in accordance with SRT Act. The Trust appreciates there is a need to recognise growing use of cycleways for commuting. Commuter cycleways do not need to be situated near the river. The Trust considers these conflict with other uses of foreshore areas. Subject to Trust policy.
	Ensure the boundary between private property and the foreshore reserve is clearly defined. Development of private property should not intrude onto the foreshore reserve, discourage public access or use (SRT, LGA).	Ongoing implementation in accordance with SRT Act. A standard statutory condition is used by the Trust. The Trust has developed a standard condition requiring developers to define reserve boundaries prior to commencement of development. Subject to Trust policy. Ongoing - Heritage trails have been
	of heritage trails in the scenic and historic areas of the river environment, so as to develop an awareness of the natural and cultural heritage of the river, and improve access to it (WAHC, DPUD, LGA, CALM, SRT).	established at Guildford and Claremont.

24. Provide ( <b>deploy</b> ) clear sign posting to popular recreation areas and scenic locations on the river in accordance with recognised standards (LGA, MRD, DPUD, SRT, CALM).	Ongoing implementation in accordance with management plans developed or assessed by the Trust and in advice to other agencies.
25. Design foreshore areas and facilities to provide access for the disabled (LGA, SRT, ACROD).	As above.
URBAN DEVELOPMENT	
26. Prepare a DPUD policy statement guiding development on and adjacent to river foreshore Parks and Recreation Reservations. This will	The Trust and DPUD have agreed that the preparation of this policy will proceed as a priority tin 1994-95.
provide local government authorities with a basis for a consistent approach to development control (DPUD, SRT).	An Environmental Protection Policy for the Swan and Canning Rivers is currently being prepared by DEP and Trust. This will address, in part, some of these matters.
The policy should include reference to:	
<ul> <li>Appropriate land use controls;</li> <li>Building design and landscaping guidelines;</li> <li>Traffic, vehicular access and parking considerations;</li> <li>Flood management and protection;</li> <li>Pollution and erosion control; and the policy should set our clearly:</li> <li>Development application and consultation procedures;</li> <li>Criteria to be used in assessment of applications.</li> </ul>	The SRT Act also provides for some control in this area. The Swan River Landscape Plan (in prep) will also address some of these matters.
27. Prepare a set of model town planning scheme provisions relating to use and development within the river environment for incorporation within local government authority town planning schemes (DPUD, SRT).	Initiated. The Trust is currently preparing a set of model town planning scheme clauses for landscape protection. It is recommended that this project proceed as a high priority.

28.	Prepare an overall management and development plan for river foreshore areas within each municipality. This plan is to be incorporated within the specific town planning scheme and to include specific development and land use controls (LGA, SRT).	Initiated -The Trust is working with LGA's on various management plans including one for the North Fremantle foreshore which may be included into the City of Fremantle's TPS. The Trust is aware that some non metropolitan LGA's have done this in consultation with the Waterways Commission.
29.	Ensure that any residential development in newly developing or undeveloped river locations has regard for: (DPUD, LGA, SRT).	Ongoing implementation in accordance with the SRT Act.
-	The nature of the river foreshore reserve, whether conservation or recreation based.	
	The degree of modification to the foreshore.	
-	The ability of the foreshore to sustain added usage.	
-	The predominant characteristics of adjoining residential.	
-	The degree of protection afforded to the foreshore, particularly to conservation areas.	
30.	Review existing town planning schemes to ensure that residential density codes in urban areas adjoining river foreshore areas are appropriate to and compatible with the characteristics of the area (LGA, DPUD, SRT).	The Trust has initiated the development of model town planning scheme clauses.
31.	Design and assess proposed residential developments in riverside locations with due regard for the foreshore. Aspects to be considered include siting of buildings, scale and the shape and form of the development (height, bulk, colour and choice of materials, landscaping, earthworks, etc.) (LGA, DPUD, SRT).	Ongoing implementation in accordance with the SRT Act. Also see 30.

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32. Consult regularly with the SRT during the preparation/review of town planning schemes over matters concerning the development and use of land in the river environment (LGA).	Ongoing - The Trust regularly comments on TPS's referred to it by local government and DPUD.
33. All proposals for canal estates to comply with the "Recommendations for the Development of Canal Estates" endorsed by Cabinet (SRT, LGA, DOT, DPUD).	Ongoing implementation - There have been no canal estate proposals since the Trust was established. Applications would be processed in accordance with the SRT Act.
	The DPUD have a Statement of Planning Policy dealing with this.
COMMERCIAL DEVELOPMENT	
34. Commercial developments should only occur in suitable locations which are chosen after careful	Ongoing implementation in accordance with the SRT Act.
consideration of social, environmental and physical planning criteria, including: (DPUD, LGA, SRT).	Areas suitable for commercial development are often identified in management plans.
- Availability of the essential services required by the development including water, sewerage, electricity and telephone.	
- Likelihood of the development having an adverse impact on neighbouring residential areas because of noise, traffic and parking.	
- Intent of the LGA town planning scheme as it relates to adjacent areas.	
- Impact of the development on the amenity of the existing landscape and natural environment.	
- Effect the development may have on the hydrology of the floodway and flood plain, and risk of flooding to the development.	
Every proposal for commercial development should be considered on its individual merits. It should also be considered in context to take into account cumulative impacts.	
- Impact of the development on public access to the foreshore.	

35.	Finalise an approval process based on the Legislative and Administrative Review which enables the meaningful participation of all interested parties.	Implemented with the promulgation of the SRT Act.	
36.	Refer proposals which involve over- water structures, development dredging, filling of the river or those which abut or include System 6 Recommendations, to the DEP for environmental impact assessment (SRT, DPUD, LGA, DOT).	Ongoing implementation in accordance with the SRT Act. The Trust refers its weekly development application filter sheets to DEP. DEP may then request referral to it of any proposal it may wish to comment on.	
WA	TER SUPPLY AND DRAINAGE	C	
37.	Develop a co-ordinated policy on stormwater disposal within the Swan	Implemented - Trust has developed policy.	
	River Trust Management Area and encourage local government to reduce stormwater outlets in accordance with this policy (SRT, WAWA, LGA, DPUD).	The Water Resources Council has recently released guidelines for "Water Sensitive Urban Design" which address the issue of stormwater management. The Trust had endorsed these guidelines.	
		It is recommended that the Trust approach DPUD to ensure these guidelines are implemented.	
38.	Proposals to upgrade or construct dams, weirs or other obstructions partially or totally obstructing a water course should be referred to the DEP (DEP, WAWA).	Ongoing implementation in accordance with the SRT Act. WAWA are required under their Act to refer these to DEP.	
FL	FLOOD PLAIN		
39.	Prepare guidelines to assist agencies involved in the management (development and maintenance)	Ongoing - The SRT has developed a flood plain policy.	
	of flood prone land (WAWA, DPUD, SRT).	An issues lists addressing aspects of flood plain management to be prepared by the Trust (SRT).	
40.	Undertake studies to prepare and update flood prone land maps. These should include all designated flood levels required for the proposed guidelines (WAWA, DPUD, LGA, SRT).	Ongoing - Trust obtains upgraded maps as they become available. WAWA develops maps on a needs basis when resources allow.	

41.	Prepare flood plain management plans for the river system. These should consider factors such as flood behaviour, including risk and effects of future developments, conservation of the natural environment, social factors and planning issues (WAWA, DPUD, DEP, SRT).	Seeking advice from WAWA. This recommendation has increasing importance as urban areas expand upstream.
42.	Investigate the need for legislative changes, in conjunction with the consolidation of Water Authority Acts and amendments to other planning Acts, to ensure that suitable co-ordination exists between planning authorities and the Water Authority for sound flood plain management (WAWA).	A review of legislation pertaining to waterways is being progressed by a State and Local Government Senior Officers Planning Group.
43.	Review flood warning systems and flood response capabilities in flood prone areas (WAWA, LGA, SES), and complete the Canning Dam failure analysis (WAWA).	Seeking advice from WAWA.
RO	AD NETWORK	
44.	Noting the importance of the river resource the proposed road network review should be carried out paying particular attention to: (DPUD, DEP, SRT, MRD)	Most of the road reserves considered inappropriate have been amended to Parks and Recreation Reservation. The issue of Riverside Drive is being the Perth Foreshore Study.
-	General impact of current road reserves or proposed roads on the	
	river environment.	
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WATER TRANSPORT		
45. Provide adequate public facilities such as toilets and parking at major ferry terminals (DOT, LGA).	Ongoing in accordance with the SRT Act eg Old Perth Port proposal.	
46. Undertake a feasibility study of extending commuter ferry services on Melville Water, including assessment of foreshore service facilities (Transperth, FCC).	Implemented - A Ferry Study was conducted by DOT. The Ferry Study concluded that river crossings, as opposed to along shore, were feasible however trials would have to be undertaken. Trials are currently being undertaken by a private operator.	
47. Examine ferry operations in the river to determine the most efficient mooring and operating procedures, and the need for ocean going ferries to use Barrack Street Jetty (DOT, TC).	Implemented - (see 46).	
48. Investigate the need to control the function and operating areas of commercial craft (DOT, SRT).	Ongoing in accordance with the SRT Act and Navigable Waters Regulations. The Trust has made recommendations on this to the SRT Act Review Committee.	

#### CONSERVATION AND ENVIRONMENTAL PROTECTION

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#### CONSERVATION AREAS

49.	Evaluate fringing wetlands for vesting as reserves for the conservation of flora and fauna or protection of the environment. Special emphasis should be given to the following: (CALM, DPUD, SRT and appropriate LGA)	Initiated - A study of the Canning, Southern and Wungong Rivers has been completed by the Trust. This identified the quality of fringing vegetation. Appropriate vesting bodies are usually identified in management plans.
-	Bennett Brook swamp, System 6 Recommendation M41.	Management are being prepared for M44, M50, M74. A review of the plan for M67 was recently completed.
-	Swan River Backwater, South Guildford, System 6 Recommendation M44.	Assess and prioritise individual areas and establish a special
-	Swan River Foreshore, Maylands, within System 6 Recommendation M50.	category for reservation (SRT, CALM, DLA).
-	Canning River Foreshore, Clontarf (adjacent to Waterford development), within System 6 Recommendation M67.	
-	Bull Creek, System 6 Recommendation M74.	
-	Ashfield Flats Wetlands.	
-	Foreshore rush marsh and associated mud flats between Shelley Bridge and Riverton Bridge.	
	The evaluation should include detailed assessment of the flora and fauna, permitted uses, definition of boundaries and adjacent land uses, definition of boundaries and adjacent land uses.	
50.	Change the vesting of the river bed beneath System 6 Recommendations M60, M61 and M62 from the Minister for Lands. Declare the waters and river bed of these areas as Conservation Reserves and vest in the National Parks and Nature Conservation Authority, accurately defining and marking their boundaries (CALM).	Implemented - Swan River Estuary Marine Park established.

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Ongoing in accordance with the SRT Act and management plans initiated or assessed by the Trust.
The Draft Lower Canning River
prawning activities have minimal impact on the river environment.
Commercial fishing is being addressed as
an issue in the management plan being prepared for the Swan River Estuary
Marine Park.
Seeking advice from CALM.

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55.	Assign a high priority to the preparation of management plans for the protection of geological sites including those at Point Waylen, Minim Cove, Peppermint Grove and The Coombe, Mosman Park. Plans should be prepared as part of System 6 Recommendations in consultation with the Western Australian Museum (DEP).	<ul> <li>Initiated - Leighton Peninsula Region Park Study.</li> <li>A resource study for Point Roe to Rocky Bay has been completed by the Trust. This study addresses the importance of geological sites in the area.</li> <li>DEP officers are investigating the fossil beds in Freshwater Bay. This will be included in the Freshwater Bay Management Plan being prepared by the Trust.</li> <li>Investigate the importance of the fossil beds at Redcliffe (WAM).</li> </ul>
56.	Assign a high priority to the maintenance and restoration of native vegetation and natural landforms when considering proposals for development or activities on river foreshores (DPUD, SRT, LGA, DEP).	Ongoing in accordance with the SRT Act and subject to Trust policy.
ER	OSION CONTROL	
57.	Identify and monitor areas of the river at risk from erosion and implement a long term erosion control programme. Control measures should include: (SRT, LGA, DOT)	Ongoing implementation-Various studies are complete, including the Foreshore Erosion Study undertaken by DOT on behalf of the Trust. Erosion control works have been completed at many sites.
-	Foreshore stabilisation with native vegetation. Tree planting adjacent to the river.	The Trust undertakes trials on different types of erosion control methods.
-	Encouragement to provide river access at nodes and discouragement of access to erosion prone areas.	Develop guidelines on erosion protection as a way of guiding agencies undertaking such works
-	Adoption and implementation of local government by-laws to prevent livestock from damaging the river banks and vegetation.	(SRT). These guidelines should address Trust policy which states that hard walling of river banks should be used as a last resort.
-	Beach renourishment, walling, groynes, flow redirection, use of baffle boards to dissipate wave action.	
	Modification to recreational activities	

58.	Provide information to private land owners to encourage appropriate methods of erosion control (SRT, LGA).	Ongoing implementation by the Trust through the preparation of pamphlets and determination of statutory applications. The Trust prepare a public information pamphlet updating this advice (SRT).	
59.	Encourage local government authorities and community groups to undertake revegetation programmes under SRT guidance (SRT).	Ongoing - Revegetation programmes have commenced in many LGA's.	
60.	Develop techniques for propagating rushes for use in bank stabilisation programmes (SRT, CALM).	Initiated - Trials have been undertaken by the Trust and a report will be prepared when enough data has been collected.	
DR	EDGING		
61.	Implement the dredging guidelines prepared by the DEP for the river as an Environmental Protection Policy under the Environmental Protection Act, 1986 (DEP).	Implemented. SRT have a policy on this matter which is operating effectively. All applications for dredging are assessed by DEP. No EPP on dredging is necessary at this stage.	
WA	WATER QUALITY		
62.	Determine more accurately nutrient loading to the river with the view to developing a management plan to reduce these inputs if necessary (SRT, WAWA, DPUD, DA, DEP).	Ongoing - More accurate nutrient loads have been determined. Sub-catchments contributing significant nutrient loads have been identified and detailed studies of Ellen Brook, Jane Brook, Southern River and Bayswater Main Drain have been initiated by the Trust.	

63.	Prepare guidelines for the phasing out of industrial discharges to the Swan River. These guidelines should include: (DEP, DPUD, ILDA, WAWA, SRT).	Ongoing implementation - Since 1988 the number of licensed discharges has been reduced from 24 to 15. The Trust has circulated guidelines to industry and continued to lobby for the extension and infill of lots to be connected to deep	
-	No new or relocated industries to be sited where they must discharge to the river.	sewerage.	
-	Measures to encourage voluntary relocation of existing industries.		
	Measures to encourage implementation of new technology to reduce or eliminate discharges.		
64.	Establish beneficial uses and water quality objectives for the river. These should address the prevention of nuisance growths of algae and contamination from urban and industrial discharges (SRT, HD, DEP).	Monitoring data have been assembled. No work has commenced on beneficial uses and water quality objectives. The Trust is currently working with DEP on an Environmental Protection Policy for the Swan and Canning Rivers system. This policy will address some of these issues.	
		Funds from the recently approved "Swan River Clean Up" will be directed to this.	
65.	Undertake an investigation of heavy metal discharges into the river including air conditioner bleed-off (SRT).	Implemented - Air-conditioning Study completed by the Trust and an action plan being prepared.	
66.	Continue to prevent the deposition of any substance at landfill sites (including putrescible material and chemical containers) that may pollute	Ongoing - No landfill sites operating adjacent to the river. Some monitoring of old landfill sites is conducted by LGA's.	
	the river environment (HD, SRT).	Leachate management plans are prepared by proponents for redevelopment of old landfill sites.	
мо	MOSQUITOES		
67.	Prepare regional mosquito control programmes in consultation with SRT, CALM and DEP to improve the effectiveness of control measures while reducing the environmental impact of the operation (LGA, HD).	Draft report has been prepared for East Metropolitan Mosquito Monitoring Group.	

68. Monitor mosquito breeding a mosquito nuisance to mea success of control prog Details of monitoring prog and their success should available to other local auth a means of improving know mosquito control (LGA).	sure the rammes. grammes be made orities as	Initiated - Being undertaken by Local Government and Mosquito Control Advisory Committee.
ABORIGINAL SITES		
69 Encourage management bo developers to consult v Department of Aborigina WAM, concerning deve plans at an early stage to en Aboriginal sites are not inad disturbed (DPUD, SRT, LG	vith the al Sites, lopment sure that vertently	Implemented - An administrative arrangement exists between WAM and the Trust for referral of proposals which may be of significance to the Aboriginal community.
EUROPEAN HISTORIC SI	TES	
70. Identify and protect sites of and/or historical signific proclamation of Western A Heritage Legislation (WAH	ance by ustralian	Implemented - Act promulgated. Sites are identified on an ongoing basis.
71. Develop appropriate histor as tourist attractions (TO WAHC).		Ongoing implementation in accordance with the SRT Act. Applications are assessed on their merits.
RECREATION AND TOURISM		
RECREATIONAL USE		
72. Undertake a survey of foreshore facilities and thei use and use this date preparation of management foreshore reserves (SRT LGA).	r current in the plans for	Implemented during the preparation of individual management plans. See Appendix 1 and 2.
73. Identify where new recreat facilities are needed and possible, assist with their p (MSP_DOT_LCA_SPT)	l, where	Assist as requested and in accordance with the SRT Act.
(MSK, DU1, LGA, SK1).	(MSR, DOT, LGA, SRT).	Sites are identified in management plans

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74. Review proposals for upgrading or establishment of recreation club facilities to determine if better use could be made of the existing facilities or if alternative foreshore facilities could be shared with other organisations (MSR, DOT, SRT, DPUD).	Ongoing implementation in accordance with the SRT Act. Policies formulated for guidance.	
75. Monitor trends in recreational use and participation through surveys, observation and public consultation to determine requirements for future recreation facilities and opportunities (SRT, MSR, DOT).	Ongoing implementation - A recreational survey was undertaken during preparation of the South Perth Foreshore Management Plan.	
76. Design a brochure which identifies recreation areas and facilities and encourage the public to use those areas most suitable for particular activities (SRT, MSR, LGA).	Initiated - The SRT 'Report to the Community' contains such a map for the lower river area. A map showing areas where vessels must operate at less than 8 knots is also being prepared by DOT and the Trust.	
77. Integrate hire and drive operations with other foreshore activities and provide facilities (toilets, parking, barbecues, seating, shade) to serve all foreshore users (LGA, SRT, DOT).	Ongoing implementation in accordance with SRT Act and in the preparation of management plans.	
78. Identify suitable areas for, and types of hire and drive operations in foreshore management plans (DOT, LGA, SRT).	Ongoing implementation during the preparation of individual management plans.	
BOATING ACTIVITIES		
79. Increase boating education programmes (DOT).	Seeking advice from DOT.	
80. Establish alternative sites outside the river environment for water-oriented activities such as rowing, skiing, kayaking (MSR, DPUD).	Ongoing implementation in accordance with the SRT Act. The Trust advises proponents to consider areas outside the river system for such activities.	

81.	Investigate the suitability of additional rowing club facilities elsewhere on the river including multi-use of other recreation club facilities (MSR, DOT).	Through the statutory application process the Trust encourages proponents for new facilities to investigate the feasibility of sharing existing facilities.
82.	Investigate development of additional water ski sites in ocean locations (DOT, MSR, DPUD).	Seeking advice from DOT.
83.	Examine problems of noise impact on residential areas adjacent to water ski areas within the management area (DEP).	Ongoing - DEP have monitored individual situations. LGA's have some regulatory control over noise.
		A Ministerial inquiry will address these and other boating issues. The Terms of Reference have been developed by the Swan River Trust.
84.	Prepare a management programme for wind surfing in the river. This should address intrusion into conservation areas, level of use at existing sites, and alternative sites (SRT, LGA, DOT, MSR, CALM).	A management programme is not required at present, however plans for specific areas may address this issue eg. Melville Beach Road. Prepare advice leaflet for windsurfers (SRT, DOT, LGA's, MSR).
85.	Promote areas upstream of Middle Swan Bridge and Riverton Bridge as canoeing areas, with power boats to be discouraged. This would not involve de-snagging in these areas but signposting should be erected warning of the dangers of snags. Canoe trails and launching facilities to be developed in these areas (SRT, DOT, LGA).	Some signs advocating no wash zones were deployed by SRT and DOT in the upper reaches. The Trust discourages commercial power boat operations in the upper reaches when advising the Minister on statutory applications. <b>Prepare as a matter of priority a</b> <b>policy on this (SRT, DOT).</b>
86.	Support the establishment of a speed boating facility for the power boat club at Burswood Island and a permanent gazetted area on adjacent waters. Investigate time-sharing of this area with the Power Dinghy Racing Association (DOT).	Implemented.

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87.	Investigate the feasibility of time- sharing of the gazetted speed boating area at Heirisson Island between the speed boat club and a possible jet ski hire and drive operator. Priority should be given to use by the power boat club (DOT).	Implemented - The Trust has prepared a policy on personal powered craft. The current policy does not favour existing types of jet skis because of their typically high noise levels.
88.	Investigate the need to amend relevant legislation to control use of private houseboats on the river and prevent permanent living on houseboats. Circulate standard letter to boat owners concerning living on boats (SRT).	Implemented through Swan River Trust Regulation 9. Prepare an information pamphlet to advise people on existing regulations and Trust policy on this matter (SRT).
89.	Undertake studies to determine the effect of boat usage on the river environment, particularly turbidity over shallow banks and boat wash (DOT, SRT).	Initiated - Studies undertaken by the SRT for upper reaches of Swan . Studies to determine the effect of power boat usage on the downstream environment be undertaken (DOT, SRT).
MA	ARINAS, YACHT CLUBS AND	ASSOCIATED FACILITIES
90.	Investigate mechanisms for using revenue raised from river facilities and leases to manage the river and provide more public facilities (see 131 and 132) (SRT, DOT).	The Trust and WWC have consultants investigating alternative mechanisms for waterways management funding.
91.	Develop procedures for a single lease for both land and water bed areas and nominate one landlord. The issue of LGA receiving funding to assist in the provision of services for over-water developments should be addressed (DLA. DOT, LGA, CALM).	DOT are doing a strategic plan for maritime facilities. Identify appropriate managers for single leases eg DOT for maritime facilities, LGA's for others eg restaurants (SRT, DLA, DOT, LGA's, CALM).
92.	Encourage marinas and yacht clubs to supply alternatives to wet pen storage for small craft. These alternatives include boat ramps, boat stacking facilities and hard-standing (DOT, DPUD, LGA, SRT).	Ongoing implementation in accordance with the SRT Act.

<ul> <li>93. Marinas should only be located in areas that: (DOT, DPUD, SRT)</li> <li>Require only minor site modifications so that large with the SRT Act.</li> <li>Require only minor site modifications so that large maintenance works that may generate compounding environmental problems (eg. regular disposal of dredged material) are not required.</li> <li>Do not impinge on sensitive environmental areas.</li> <li>Do not impinge on other legitimate competing uses.</li> <li>Take account of river landscape.</li> <li>94. Ensure that mooring redevelopments optimise the use of water lease areas including pen and swing mooring layouts. Further expansion of water lease areas should be discouraged (DOT, SRT).</li> <li>95. Upgrade existing boat launching areas to include adequate parking and investigate the need for new moderate sized boat ramps. Boat launching ramps, both public and in yacht clubs and marinas, should be a means to encourage boat owners to store trailable boats away from the river. The location of these boat ramps in upstream areas where boating goportunities are limited (DOT, SRT, LGA).</li> <li>96. Encourage ocean boating facilities (DOT).</li> <li>97. Encourage sullage pumpout facilities at major yacht clubs and marinas, Stould be and marinas, (SRT, HD, DOT).</li> <li>97. Encourage sullage pumpout facilities at major yacht clubs and marinas. Subject to Trust policy.</li> </ul>			
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<ul> <li>(DOT).</li> <li>97. Encourage sullage pumpout facilities at major yacht clubs and marinas (SRT, HD, DOT).</li> <li>DOT actively assesses community needs boating facilities.</li> <li>Ongoing implementation in accordance with the SRT Act and in management plans.</li> </ul>	95.	areas to include adequate parking and investigate the need for new moderate sized boat ramps. Boat launching ramps, both public and in yacht clubs and marinas, should be a means to encourage boat owners to store trailable boats away from the river. The location of these boat ramps to be incorporated into foreshore management plans. Restrict new boat ramps in upstream areas where boating opportunities are	
at major yacht clubs and marinas with the SRT Act and in management (SRT, HD, DOT).	96		DOT actively assesses community needs
Subject to Trust policy.	97	at major yacht clubs and marinas	with the SRT Act and in management
			Subject to Trust policy.

98. Ensure public access along the foreshore in front of yacht clubs is kept open at all times, and that the public is not discouraged from using that access. Review leases where necessary (DLA, SRT, LGA, DOT, CALM).	Ongoing implementation in accordance with the SRT Act. Develop an administrative arrangement between the Trust and yacht clubs detailing responsibilities within and between lease areas. The agreement to include details of maintenance of public access, development approval process and policy regarding river bed leases (SRT, DOT, LGA's).
99. Retain the Maylands Slipyards as a public facility for building private boats. Upgrade mooring and slipping facilities (DPUD).	Ongoing implementation in accordance with the SRT Act. Seeking advice from DPUD.
100. Allow commercial boat building on the river to continue at its current level (DPUD).	Ongoing in accordance with the SRT Act.
101. Retain a sufficient range of industries servicing river facilities in appropriate locations (DPUD, DOT).	Ongoing in accordance with the SRT Act.
<ul> <li>102. Undertake a study to determine the maximum amount of mooring desirable, determine the location of future mooring areas in the river and prepare a government policy on mooring control. Aspect to consider in the study are: (DOT, SRT)</li> <li>Protection of sensitive seagrass areas.</li> <li>Growth of boating use.</li> <li>Size of boats stored on the water.</li> <li>Competing recreation uses.</li> <li>Navigation and safety</li> </ul>	Seeking advice. Develop an inter-departmental policy between DOT and SRT to manage mooring areas .
103. Investigate the need to extend the Port of Perth into upstream areas as a means of mooring control (DOT, SRT).	Implemented - other legislation exists to control the use of swing moorings.

TOURISM	
104. Restrict foreshore tourist service facilities to those essential. Facilities providing support to the service, eg. administration buildings, should be located away from the river foreshores (DPUD).	Ongoing implementation in accordance with the SRT Act and management plans.
105. Conduct a feasibility study for a ferry service between tourist development around the river (Transperth, TC, DOT).	Implemented - See 46 and 47.
106. Publish an information booklet and map detailing the attractions of	No action.
the river for self-drive tourists and day visitors (SRT, TC).	Consider development of this booklet when funds are available.
107. Require tourist operators proposing to conduct tours into conservation areas to seek approval from the relevant management body (TC, LGA, CALM).	Ongoing implementation in accordance with the SRT Act.
108. Encourage tourist facilities and activities which have a high degree of authenticity and enhance the natural attributes of the area (TC, SRT).	Ongoing implementation in accordance with the SRT Act and management plans.
NAVIGATION AND BOATIN	G SAFETY
BOATING CONTROL	
109. Determine special use areas having regard for: DOT, SRT, DPUD)	Ongoing implementation in accordance with the SRT Act and management plans.
<ul> <li>Boating safety.</li> <li>Recreational use.</li> <li>Impact on the foreshore including vegetation bank stability.</li> <li>Compatibility with the overall river plan for the area.</li> </ul>	Draft a regulation which will allow for control over boating for purposes other than navigation eg protection of conservation areas (SRT).
110. Extend the existing mechanism so that navigable waters may be closed for conservation and maintenance objectives as well as for safety reasons (DOT, SRT, CALM).	See 109.

111. Encourage and expand the recently introduced voluntary training programmes for boating operators (DOT).	Seeking advice.
112. Ensure installation of fire fighting equipment at all major jetties, including yacht clubs and marinas (DM, DOT).	Seeking advice.
FISHING	
FISHERY MANAGEMENT	
113. Reduce the numbers of professional fishing licences through decline by retirement and withdrawal of licence holders from the industry until the number of licences has been reduced to twelve (FD).	Implemented. WA Fisheries Dept Policy.
114. Collect and assess information on the impact of the current Restricted Entry Policy, and make adjustments to the policy when necessary (DF).	Ongoing implementation.
115. Endorse the Policy of the Department of Fisheries to close the waters to amateur net fishing from July 1988 (excluding prawning or crabbing) (DF).	Implemented.
116. Develop an education programme which emphasises the need for regulation and maintenance of habitats and breeding areas (DF).	Ongoing implementation.
<ul> <li>117. Undertake research on:</li> <li>Species taken by commercial and recreational fishing.</li> <li>The effects of changes to the river environment on fish and shellfish, and their habitats (DF).</li> </ul>	Implemented - The Department of Fisheries is undertaking research on species composition and impacts on the fishery.

#### PUBLIC PARTICIPATION

#### PUBLIC INVOLVEMENT AND EDUCATION

118. Ensure that all significant development proposals on and around the river are available for public comment before any decision is made. Investigate the need to amend legislation to achieve this recommendation (DEP, SRT, DPUD) (Implemented under Part V of the Swan River Trust Act, 1988).	Ongoing implementation in accordance with the SRT Act.
<ul> <li>119. Ensure community representation on the Swan River Trust (DPC) (Implemented Section 12 - Swan River Trust Act).</li> </ul>	Implemented by Swan River Trust Act.
120. Investigate the desirability of a	Implemented.
community advisory committee to assist the Swan River Trust on policy preparation and matters affecting the river environment (SRT).	Establish a community advisory committee to assist the Swan River Trust on policy preparation and matters affecting the river environment (SRT).
121. Implement public education and interpretative programmes which promote awareness, appreciation, understanding and active concern for the natural and cultural values of the	Ongoing implementation - A schools education and teacher training programme is in preparation. Trust provides a range of informational material.
river environment. These programmes should be designed to involve active public participation (SRT, MSR, LGA, DPUD, DEP, CALM).	Programs to involve active public participation are being developed as part of the "Swan Canning Clean Up" program including the establishment of a Swan River Volunteer Corp.
122. Examine the feasibility of establishing a public record of projects and proposals under consideration affecting the river environment (SRT).	

#### MANAGEMENT

#### **CO-ORDINATION**

123. Prepare a detailed management programme for the river environment. This should include development of statutory and non- statutory policies and agreements between the SRT and other agencies to manage particular areas of the river environment (SRT).	Initiated. Policies are complete. The Strategy has been used as a defacto management programme by the Trust. With a significant number of recommendations implemented. Assign a high priority to development of the SRMP (SRT).
124. Implement procedures for referral and consideration of development proposals so that the interests of all involved agencies are taken into account (SRT)	Implemented with proclamation of the Swan River Trust Act (Sections 12 & 23).
EMERGENCY PROCEDURES	
125. Ensure that management agencies have adequate equipment to control chemical and oil spills in the river (SRT, DOT).	Implemented.
126. Endorse the review of the W. A Transport Emergency Assistance Scheme. The WATEAS should be broadened to include storage incidents (SES, DM, DOSHWA).	Implemented- (WATEAS is being replaced by the WAHMEMS Scheme). Change the recommendation to reflect the new WAHMEMS Scheme.
127. Prepare contingency plans for key agencies with a role in combating direct and indirect spillage's to the river environment. Plans should be compatible with WATEAS. Agencies should liaise with SES for advice on preparation of plans (DM).	Implemented. Contingency plan developed and distributed by the Trust. This plan is updated yearly.
128. Review road routes for and means of transporting substance with the potential to pollute the river environment. (DM).	No action - Follow up with DM.

SWAN RIVER TRUST MANAGEMENT AREA		
129. Extend the Swan River Trust Management Area to include any extension to the Regional Parks and Recreation Reservation adjacent to the river to enable the SRT to assist with the management and preparation of plans for land vested in other authorities (DEP, SRT)	No action. <b>Prepare a regulation pursuant to the Swan River Trust Act to permit changes to the Trust management area (SRT).</b>	
130. Convene meetings between LGAs and SRT to negotiate arrangements for foreshore management and investigate the need to apply LGA by-laws over sections of the river (SRT, LGA)	Implemented - Regular annual meetings are held between the Trust and LGA's to discuss issues of mutual interest.	
CAPITAL AND MAINTENANCE WORKS		
131. Develop appropriate funding arrangements for river maintenance. This may include cost sharing between local government and the State and contributions from commercial operators (SRT, DOT, LGA, CALM, DPUD).	Ongoing implementation. DOT are preparing a strategic plan for maritime facilities. Develop appropriate funding arrangements for river maintenance (SRT).	
STAFF AND FINANCE	STAFF AND FINANCE	
132. Establish an inter-departmental committee to review resources required and develop a financial strategy for implementing the Swan River Management Strategy (SRT, DPC).	The Trust is currently involved in talks regarding corporate sponsorship. A broadly represented reference group has been formed to investigate alternative funding sources.	
133. Increase the visible presence of management authorities on the river including weekends (DOT, SRT, CALM, DF).	Ongoing implementation. The Trust has seventy Honorary Inspectors. These Inspectors are drawn from local and state government and the general community.	

## 4.2 Area recommendations

AREA 1 RIVER MOUTH TO PE	ETRA STREET AND POINT ROE
A1 Endorse the City of Fremantle's and SPC's North Fremantle River Foreshore Plan. The plan encourages medium density housing, improved public access to the foreshore, and a range of opportunities in the area. Retain space for some marine service industry, and review cycle and pedestrian access in the area (FCC, DPUD).	Implemented. Review the North Fremantle River Foreshore Plan (SRT, FCC, DPUD)
A2 Prepare and release for public comment a management plan for the cliff faces in the Town of East Fremantle (EFTC, DPUD).	Partly considered in the East Fremantle Foreshore Landscape study. Undertake a comprehensive study for the cliff faces in the Town of East Fremantle (EFTC, DPUD, SRT).
A3. Prepare and release for public comment a management plan for System 6 Recommendation M57 in consultation with the Western Australian Museum. The plan should recognise in particular the geological importance of the area (MPTC, DEP).	Initiated - Work has been undertaken by the Leighton Peninsula Regional Park Committee. This committee had not met for some time. An environmental study has been completed by a student on behalf of the Trust. Reconvene the Leighton Peninsula Regional Park Committee (DPUD, MPTC, DEP, SRT)
A4 Prepare landscape concept plan for Area 1 which would integrate various land and water uses. This plan should include building design and landscaping guidelines for land owners and lessees and should incorporate plans referred to in A1, A2 and A3 (DPUD, FCC, MPTC, EFTC).	Initiated - Preparation of the plan is underway as part of the Swan River Landscape Plan. The development of this plan was given a high priority and initially consultants were engaged by the Trust to prepare it. However it is was suspended in 1993 due to limited funds. Funds have been allocated for 1994-95. See Rec 14.

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A5 Ensure that redevelopments along the North Fremantle foreshore which benefit from its river location incorporate features which improve public amenity, including improved public access, specifically setting freehold titles back a reasonable distance from the river and from edges of steep foreshores, ie. cliff tops (see Section 5.2.3) (DPUD, FCC).	consultation with DOT, DPUD and local residents association agreed to prepare a structure plan for this area.
A6 Re-align existing swing moorings opposite Gilbert Fraser Oval to make best use of available space (DOT).	Seeking advice.
A7 Ensure land set aside for Swan Junior Yacht Club is used for appropriate purposes such as Junior	
Yacht Club facilities or parkland (DLA, EFTC, SYC, SRT).	Develop a landscape plan for this area (EFTC, SYC, SRT).
A8 Renovate Drivers' residence (Left Bank) in accordance with proposals prepared by the Town of East Fremantle (EFTC).	-
A9 Investigate the feasibility of eliminating discharges associated with industry (DEP, WAWA, SRT).	
A10 Investigate opportunities for improved public access on the river side of sites occupied by the Army and Navy, and marina and industrial complexes, and for increased public parking, including possible use of part of Leeuwin Barracks for this purpose (EFTC, DPUD, ARA).	with the SRT Act. This was partly addressed in the East Fremantle Foreshore Landscape study, however it is an ongoing issue for the LGA and requires further attention.
A11 Investigate the effects of river engineering works on sediment movement downstream of Point Roe (DOT).	study of the area.

A12 Ensure adequate foreshore reserve is established if industry at Point Roe is phased out (DPUD, MPTC).	Ongoing implementation in accordance with the SRT Act. The Town of Mosman Park has entered
	into an agreement with the current owners which will ensure that an adequate reserve will be acquired on redevelopment.
AREA 2: BLACKWALL REACH (PETRA STREET AND POINT ROE TO CHIDLEY POINT AND POINT WALTER)	
A13 Develop and release for public comment a land use plan for Bicton Quarantine Station (MCC) (Implemented).	Implemented.
A14 Prepare and release for public comment a management plan for System 6 Recommendation M56. The area should be extended to include the geological site at The Coombe, Mosman Park (MPTC, DEP).	Initiated - The Leighton Peninsula Regional Park Committee. DEP have approached the LGA requesting they give this some consideration.
A15 Support implementation of Blackwall Reach Reserve Management Plan (MCC).	Implemented.
A16 Resite existing carpark at Durdham Park back from the river (MCC) (Implemented).	Implemented with A13.
AREA 3: CHIDLEY POINT TO POINT RESOLUTION	
<ul> <li>A17 Prepare and release for public comment a management plan for System 6 Recommendations M54, M56 and M59. Plans for M54 and M56 should recognise the importance of geological sites in these locations (MPTC, PGTC, NCC, DEP).</li> </ul>	Initiated - Management plan for M54 and M59 completed.

A18 Prepare and release for public comment a management plan for all foreshore areas incorporating plans referred to in A17 and address the issue of private development on public foreshores (DPUD, PGSC, MPTC, NCC, SRT, DLA, CTC).	Initiated - Management plans completed for M54 and a draft plan for the Freshwater Bay foreshore has been released for public comment. Assess the need for an overall plan on completion of these management plans (SRT).
A19 Provide public access along the river foreshore between Mosman Bay and Green Place Reserves at Chidley Point. Options include construction of a boardwalk or reclamation along the foreshore (DPUD, SRT, PGSC, MPTC).	Ongoing implementation in accordance with the SRT Act. Some small sections have been completed eg the MPTC recently constructed a walkway near the Coombe.
A20 Provide public access through yacht clubs (DLA, CTC, PGSC, CALM)	Ongoing implementation in accordance with the SRT Act. Provision of public access is normally a condition of the lease.
A21 Encourage reconstruction of Claremont Jetty for recreational use (CTC, DOT).	Implemented.
A22 Ensure that commercial developments on the foreshore or over water incorporate adequate parking provision and do not detract from the amenity of the foreshores, other use and nearby residential areas (DPUD, MPTC, PGSC, DOT).	Ongoing implementation in accordance with the SRT Act.
A23 Promote the public use of White Beach (NCC).	The draft Freshwater Bay Management Plan, prepared by the Trust addresses this.
A24 Encourage restoration of the boatsheds at Keanes Point as examples of a once common feature of river use (DOT, PGSC, SRT).	Ongoing implementation in accordance with the SRT Act (as licences come up for transfer).
A25 Investigate the desirability of extending the boat speed limit area north of Chidley Point (DOT).	Seeking advice.

AREA 4: POINT WALTER TO DE	E ROAD
A26 Develop and release for public comment a management and landscape plan for the Point Walter foreshore area. This plan should include: (MCC)	Implemented.
- Relocation of roads and carparks at Point Walter away from the foreshore.	
<ul> <li>Increased beach recreational opportunities.</li> </ul>	
<ul> <li>Provision for commercial development at Point Walter which will take advantage of hillside views but will not compromise the foreshore reserve.</li> </ul>	
<ul> <li>Provision for expanding and upgrading the kiosk at Point Walter.</li> </ul>	
- Provision for income from the commercial development to be used for development of public facilities.	
- Limitation of hire and drive facilities to minimise over-crowding.	
- Provision for protection of the existing charm of the are including that of Point Walter Spit and Jetty.	
A27 Prepare and release for public comment a management and	No action.
landscape plan for the Attadale Reserve. This plan should involve an investigation of the demand for recreational opportunities along the Burke Drive foreshore. Include consultation with the regional community and the Department for Sport and Recreation (MCC, MSR, SRT).	Progress the implementation of this recommendation (MCC, MRS, SRT).
A28 Change the purpose of the road reserve along Melville Beach Parade to Recreation Reserve (DLA, MCC).	No action.

A29 Consider relocation of the air navigation facility from Alfred Cove Nature Reserve when it is due for replacement. The land should be vested with CALM for inclusion within the Alfred Cove Nature Reserve to ensure preservation of the important geological site in this location (DOA, CALM).	A management plan for the Swan Estuary Marine Park is in preparation. This issue will be considered in that document.
A30 Implement System 6 Recommendation M61 <sup>(Alfred Cove</sup> Aquatic Reserve) as a Conservation Reserve (refer Section 5.3.1). This should include both the land and water area and the geological site underlying the air navigation beacon. Prepare and release for public comment a management plan for the area (CALM, DLA, DOA, DEP).	Implemented - See A29. Investigate whether the geological site has been sufficiently protected (CALM).
A31 Establish a bird observation and interpretation facility in the Alfred Cove Nature Reserve and resite part of the existing dual-use path around the perimeter of the reserve (CALM, MCC)	Implemented - however the bird hide was removed due to the high level of maintenance required.
A32 Support proposals to reduce the residential density coding (R50) adjacent to Alfred Cove Nature Reserve (MCC).	No action.
A33 Undertake studies to determine maximum noise level and activity levels for protection of waterbirds.	No action.
AREA 5 DEE ROAD TO CANN	ING BRIDGE
A34 Provide greater public access and recreation opportunities on the headland and foreshore of Point Heathcote, should the Heathcote Hospital be relocated. Redevelopment of the site should provide for a mix of residential, commercial and recreational uses (DPUD,MCC, HD).	There was a public debate about the future of this site recently. The City of Melville are preparing a heritage management plan.

ording of the recommendation is misinterpreted - it requires ling so that it does not imply that it be demolished.
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ion.
nented.
ng implementation. field staff replant the area on an unistic basis.
nented. A continuous reserve o Brentwood Ave.
on.
CAN POINT
d - to be considered in the Swan andscape Plan. City of Nedlands undertake ape works as part of their works n.
d - to Landso City ape w

A42 Implement System 6 Recommendation M62 (Pelican	Implemented.	
Point Aquatic Reserve) as a Conservation Reserve (refer to Section 5.3.1). Prepare and release for public comment a management plan for the area (CALM, SCC, DEP).	The plan is in preparation by CALM.	
A43 Support the City of Nedlands Commercial Management Study. Permanent commercial facilities and structures should only be constructed between The Esplanade and the scarp (DPUD, NCC).	Ongoing implementation in accordance with the SRT Act and the management study.	
A44 Provide public access along the river foreshore between Beaton Park and Point Resolution Reserve.	Ongoing implementation in accordance with the SRT Act.	
Options include construction of a board-walk or reclamation (see Section 5.2.1 and 5.2.3) (SRT, NCC).	The City of Nedlands have prepared a plan.	
AREA 7: PELICAN POINT TO NARROWS BRIDGE		
A45 Discourage new activities and associated facilities in Matilda Bay (CALM, SCC).	Ongoing implementation in accordance with the SRT Act.	
(CILLIN, UCC).	CALM have prepared a management plan for the area.	
A46 Review the need for expansion and upgrading of rowing club facilities to accommodate more than one club (CALM, SRT, MSR, ARAWA).	Ongoing implementation in accordance with the SRT Act.	
A47 Support the transfer of vesting of Matilda Bay Reserve from CALM to the City of Subiaco (CALM, SCC).	No action - the recommendation is no longer relevant. CALM wish to retain vesting.	
A48 Landscape Matilda Bay Reserve and the grounds of the University of W. A to be complementary to each other (CALM, UWA)	Implemented in the Matilda Bay Management Plan.	
A49 Integrate redevelopment of the Swan Brewery with the foreshore so as to maintain public access, especially for around the river and for fishing (DPUD) (Implemented).	Implemented.	

A50 Maintain a policy of permitting use of University car-park by the public wishing to use foreshore areas on weekends (UWA).	Implemented.
AREA 8: NARROWS BRIDGE TO	O CANNING BRIDGE
A51 Implement System 6 Recommendation M60 (South Perth Aquatic Reserve) as a Conservation Reserve (refer Section 5.3.1). This should include both the land and water area. Prepare and release for public comment a management plan for the area (CALM, DEP).	Implemented. The plan is in preparation as part of the Swan Estuary Marine Park Management Plan.
A52 Continue preparation of the Landscape Precinct Study and release it for public comment (SPCC, PZG).	Implemented.
A53 Prepare an overall landscape concept plan for the foreshore incorporating the plans prepared for A51 and A52. Recreation nodes should be concentrated at footbridges (SPCC).	Implemented The plan is in preparation as part of the Swan Estuary Marine Park Management Plan. A landscape plan has been prepared.
A54 Improve and expand parking in the Mill Point area (SPCC).	Implemented.
A55 Encourage the use of the area by wind surfers near the Preston Street and Thelma Street footbridges by providing grassed areas for rigging sail boards. Discourage wind surfers near the Mill Point water skiing area and the Charles Street footbridge, adjacent to the Milyu Nature Reserve (SPCC, DOT).	Implemented - however the area is not very popular amongst windsurfers.

AREA 9: CANNING BRIDGE TO SHELLEY BRIDGE (INCLUDING BULL CREEK)	
A56 Prepare an overall management plan for the area between Canning Bridge and Shelley Bridge which would address issues such as the need for additional rowing club facilities, rowing course development and related land access subject to the continued protection of the area (SRT, DOT, SPCC, MCC, CALM, CCC).	Initiated - Draft Lower Canning River Management Plan has been released for public comment. Public comments will be reviewed and amended where appropriate.
A57 Prepare and release for public comment management plans for System 6 Recommendation M66 and M74. The plan for M74 should be jointly prepared by the Cities of Canning and Melville (MCC, SPCC, CCC, CALM, DEP).	<ul><li>Initiated - M66 completed by City of South Perth (Mount Henry feature management plan).</li><li>M74 being considered in the Bull Creek Management Plan being prepared by the City Of Melville. Both areas have been considered in the draft Lower Canning River Management Plan (LCRMP).</li></ul>
A58 Review the MRS Parks and Recreation Reservation in the Bateman Estate with a view to acquiring an adequate foreshore reserve (DPUD, MCC).	The Draft LCRMP makes recommendations for the area relating to the definition of the existing reserve.
A59 Protect fish nursery grounds in Shelley Basin (SRT, DF, DPUD).	The draft LCRMP reiterates this. Investigate whether an appropriate mechanism to protect these fish nursery grounds may be through an amendment to the Land Act allowing reservation of land below low water mark (SRT).
A60 Reconstruct the recreational jetty in the vicinity of Riverton Bridge (DOT, CCC).	No action. Negotiate an agreement between the City of Caning and the Trust for reconstruction of the jetty (SRT, CCC).
A61 Support the City of Melville's proposals to improve public access along The Esplanade and Bull Creek foreshores (MCC, SRT).	Initiated - Has been addressed in the preparation of the draft LCRMP.

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A62 Discourage informal boat landing along vegetated sections of the river foreshore (MCC, CCC, SRT).	Ongoing implementation in accordance with the SRT Act Regulations. City of Melville have established formal boat storage areas. These are proving very successful.
A63 Investigate the possibility of extending the Curtin University Rowing Club facilities at Salter Point to accommodate another club (SRT, MSR).	Implemented - The facility is fully committed and no opportunity exists to accommodate other clubs.
AREA 10: CANNING WETI NICHOLSON ROAD BRIDGE)	LANDS (SHELLEY BRIDGE TO
A64 Declare the Canning River Regional Park (DPUD, CALM, CCC).	Implemented.
A65 Continue development of a joint management programme for the area and release for public comment (CALM, CCC, DPUD, SRT).	Initiated - A planning committee has been formed. It is chaired by CALM.
A66 Acquire remaining privately owned land within the proposed Regional Park (DPUD).	Ongoing implementation by DPUD.
A67 Endorse the SPC's Terms of Reference for the 'South East Corridor Transportation Planning Study' which states that 'Due to its unacceptable environmental and social effects the previously considered Spencer-Chapman Road link will not be considered as a future option'. (SRT, DPUD, CCC).	Implemented.
A68 Review land zoning adjacent to the proposed Regional Park to ensure compatibility with conservation of flora and fauna (DPUD, CALM, CCC).	Ongoing implementation in accordance with the SRT Act. Supported by the interim park management committee and will be considered by the current committee.
A69 Investigate the incorporation of mud flats between Shelley and Riverton Bridges into the proposed Regional Park (CALM, DF).	No action.

A70 Investigate the need to restrict power boat usage and control launching areas in the proposed Regional Park (DOT, DPUD, CCC).	The Trust discourages power boating in the upper reaches. Ensure this issue is addressed by the current management planning committee for the regional park (SRT).
AREA 11: UPPER CANNING AN	D SOUTHERN RIVERS
A71 Determine areas suitable for Parks and Recreation Reservation on Canning and Southern Rivers to implement System 6 Recommendation M75. Prepare and release for public comment a management plan for the area (DPUD, CALM, GCC, ACC, DEP, SRT).	Initiated - Draft report has been prepared (Armadale Regional Open Space Study) - Both the Trust and City of Armadale believe a major amendment to the MRS, based on this study, should be a high priority.
A72 Undertake a revegetation programme including removal of exotic species (CALM, GCC, ACC, SRT).	Initiated - Gosnells recommends the wording be changed to pest and noxious weeds to allow for some exotics in certain areas. The Trust and City of Armadale recently gained National Landcare Funding to
A73 Create dual-use paths and walkways in the area in accordance	tackle this problem. Ongoing implementation in accordance with the SRT Act.
with the 'Interim Environmental Guide-lines for Dual-Use Paths' (DPUD, GCC, ACC, SRT).	whith the SKT Act.
A74 Examine alternatives to acquisition of foreshore areas to permit public access to and along the foreshore (DPUD).	No action.
A75 Identify recreation nodes suitable for local use (DPUD, CALM, SRT, GCC, ACC).	Initiated - as part of report mentioned in A71.
A76 Investigate the feasibility of creating a series of weirs/ponds to	No action.
improve recreational use of the waterway adjacent to recreation nodes (SRT, GCC, ACC).	Progress this recommendation with the Cities of Gosnells and Armadale (SRT).

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A77 Investigate suitable locations for camping and chalet facilities in the upper reaches, taking into account the problems of nutrient enrichment (DPUD, SRT, GCC, ACC).	No action.
AREA 12: PERTH WATER AND	HEIRISSON ISLAND
A78 Develop Barrack Square and the Around the River Ride dual-use path as a tourism and recreation precinct, integrating with the redevelopment	Ongoing implementation in accordance with the SRT Act and the management planning process.
plans of the Cities of South Perth and Perth for the area (TC, PCC, SPCC).	The approved redevelopment of Barrack Square addresses public access etc.
	The WA Rowing Club is being upgraded.
A79 Develop a commercial/recreation node at Point Fraser which complements the existing recreation	Ongoing implementation in accordance with the SRT Act.
uses of the area (cycle hire and helicopter operations) (PCC, DPUD).	A development proposal has been approved but works have not commenced.
	The City of Perth have completed a planning study for the area.
A80 Upgrade the Barrack Square and Jetty area by relocating the bus terminus, improving pedestrian	Ongoing implementation in accordance with the SRT Act.
access and parking and providing essential public facilities including toilets and a sheltered area for passengers, and reconstruction of the historic W. A Rowing Club building. Examine financing from the public and private sector to implement this recommendation (DPUD, DOT, DCC, WARC).	The rowing club has been renovated and redevelopment plans approved for all jetties.
A81 Increase access to the water, where possible by the reduction of walled areas to create rest spots for park users, and increase waterbird habitats including creation of shallow wetlands near Heirisson Island using dredge spoil (SRT, PCC, DOT, CALM).	Initiated - Perth Foreshore Study.

A82 Prepare an overall landscape plan for the Perth Water area (DPUD, PCC, SPCC).	Initiated - Perth Foreshore Study, Swan River Landscape Plan and Draft Sir James Mitchell Park (South Perth Foreshore) Management Plan. The SPCC believe an integrated plan is not necessary as the issues are different.
A83 Provide for tearoom/kiosk facilities at appropriate locations to service foreshore users including pedestrians and cyclists (PCC, SPCC).	Ongoing implementation in accordance with the SRT Act and Perth Foreshore Study.
A84 Endorse the City of South Perth plans for redevelopment of Sir James Mitchell Park, integrating the Botanic Guide to Perth's Gardens and the Landscape Precinct Study into the plan (see Recommendation A52) (SPCC, SRT).	Implemented.
A85 Encourage the continued operation of hire and drive vessels on the South Perth foreshore (surfcats) (SPCC, DOT).	Implemented.
A86 Review the desirability of moving Riverside Drive further from the river as part of an overall study of regional roads (DPUD, MRD, PCC).	Initiated - Perth Foreshore Study. PCC continue to support this recommendation.
A87 Identify options for further carparking in the area of Mends Street Jetty (DPUD, SPCC).	Implemented.
A88 Review commercial berthing and mooring facilities in and around Perth Water (DOT).	Ongoing implementation in accordance with the SRT Act and the Perth Foreshore Study. DOT have commenced the redevelopment of jetties 2-5 at Barrack Square.
A89 Investigate the possibility of improving pedestrian and vehicle access to Heirisson Island via the Causeway during weekends and evenings. Upgrade Heirisson Island by providing improved water access, recreation areas and path systems (PCC, MRD).	No action.

AREA 13: BURSWOOD ISLAND TO TONKIN HIGHWAY BRIDGE	
A90 Prepare and release for public comment management plans for areas subject to System 6 Recommendations M50 and M51 (STCC, Bays CC, BCC, CALM, SRT, DEP).	Implemented - The City of Stirling have prepared a management plan for M50. A planning team comprising LGA, DPUD, SRT, EPA and community representatives has prepared draft for M51 which has been released for public comment.
A91 Prepare an overall management and development plan for the Maylands Peninsula (STCC, DPUD, SRT).	Initiated - The City of Stirling have prepared a plan for the golf course. Various proposals have been discussed for the clay pits.
	The Trust, DPUD, EPA and City of Stirling previously prepared an overall plan. This plan did not gain the acceptance of community groups.
A92 Release for public comment management plans currently being prepared for Burswood Island to ensure they enhance the aesthetic appeal of the area, improve public access and conserve and enhance wetland vegetation (DPUD, MRD, SRT, PCC).	No action.
A93 Prepare and release for public comment a development plan for the Bayswater Tip site, incorporating features such as restaurants, kiosks, parklands and other recreational facilities and conservation strategies for the bird sanctuary (Bay. CC, SRT).	Implemented - A management plan has been prepared and is being implemented with funds from the Better Cities Program.
A94 Prepare and release for public comment a concept plan for the Belmont Tip site (WADC, DPUD, BCC).	An Improvement plan 20 has been prepared by DPUD for the site.

A95 Prepare and implement a management and landscape concept plan for the river foreshore to improve its aesthetic appeal and to conserve and enhance wetland vegetation. This should include a revegetation programme, and integrate the plans prepared for Recommendations A90, A91, A92, A93 and A94 (DPUD, SRT, PCC, BCC, STCC, Bays. CC).	Initiated - The Swan River Landscape Plan (See 14).
A96 Complete redevelopment of Maylands Slipyards including mooring piles, pier wall construction, foreshore walling, dinghy launching ramps and dredging. This should be incorporated as part of the overall Maylands Peninsula management plan, Recommendation A91, (DPUD, SRT).	Implemented - Work complete.
A97 Develop and promote heritage trails on the Maylands Peninsula, focusing on areas such as the old Brick Works and Tranby House (DPUD, STCC, WAHC).	Initiated - Some work has occurred at Tranby House. DPUD have recently engaged a consultant to prepare a landscape plan for the area between the Maylands Slipways and the Police Academy.
A98 Rezone industrial sites to more appropriate uses when industries relocate (DPUD, SRT, PCC, BCC, STCC, Bays CC).	Initiated - DPUD are conducting extensive planning studies between East Perth and Bayswater. The City of Belmont are reviewing some of the areas zoned industrial in their TPS. Removal of contaminated soils in the river at East Perth has commenced.
A99 Upgrade Goodwood Parade foreshore, implement erosion control measures, increase parking facilities and fishing opportunities (PCC, SRT).	Implemented. Monitor the area with the view to restricting vehicular access to the foreshore if required (SRT, PCC)
A100 Retain the gazetted water ski and power boat areas adjacent to Burswood Island (see Section 5.4.2) (DOT).	Implemented.

A101 Eliminate mosquito breeding sites created by human activity along the Bayswater and Belmont foreshore areas to reduce mosquito breeding (ie. stagnant pools associated with previous filling and wheel ruts created by vehicles) while maintaining the natural values and function of the wetland environment (Bays.CC, BCC, SRT, HD).	Initiated - It is not feasible or desirable to eliminate all mosquito breeding sites. The Trust has been working with LGA's above the Causeway to develop an integrated control strategy. The draft has been completed and will be forwarded to the LGA's shortly for consideration. <b>Replace the word 'eliminate' with the word 'manage'.</b>
A102 Assess the need for extension of Riverside Drive connecting the Causeway to Burswood Bridge as part of a road network study undertaken in the review of the Metropolitan Region Scheme (DPUD, MRD, PCC).	Initiated -An assessment is being undertaken as part of the East Perth redevelopment project and the Perth Foreshore Study.
A103 Investigate the possible location of a dual-use path circuit on Burswood Bridge and connecting roads (DPUD, PCC, MRD).	No action. PCC have approached MRD on this matter.
A104 Investigate the possibility of a boat or rowing club using the existing Bayswater sea scout facilities (SRT).	Implemented - The possibility of shared use of this facility was investigated but found to impractical and a new boathouse has been approved at this site.
AREA 14: TONKIN HIGHWAY B	RIDGE TO WEST SWAN ROAD
A105 Recognise the Ashfield Flats as having regional significance for passive recreation, wildlife habitat, education and flood plain management as referred to in Section 5.3.1. (DPUD, SRT, BTC, DEP).	Ongoing implementation - The importance of Ashfield Flats has been recognised. DPUD acquires reserved land as the opportunity arises.
A106 Prepare and release for public comment a management plan based on the recent Ashfield Flats Land Use Study, including identification of appropriate management agencies (DPUD, BTC, SRT, CALM).	No action - Town of Bassendean continue to support recommendation.
A107 Prepare and release for public comment a management plan for System 6 Recommendation M44 (SCC, SRT, DEP).	Initiated by the Shire of Swan with advice from SRT and DEP.

A108 Establish a Regional Park between Whiteman Park and the Swan River, encompassing Bennett Brook by means of a Parks and Recreation Reservation, and develop a management programme for the area in consultation with the Aboriginal community (DPUD, CALM, SSC, WAM).	<ul><li>Initiated - Shire of Swan continues to support this recommendation.</li><li>A community group in Bassendean have received a grant to study the flora along Bennett Brook.</li></ul>
A109 Develop a river bank management plan for this whole area to include use of cul-de-sacs and roads for river access, foreshore revegetation and erosion control, erection of fishing platforms and review Parks and Recreation Reservation boundaries (SRT, BTC, SSC, BCC).	No action on the development of a management plan, however the Trust currently undertakes some works on an opportunistic basis. The Shire of Swan and City of Bayswater continue to support this recommendation. The Trust has prepared the Ashfield Parade Foreshore Management Plan in association with Bassendean Town Council.
A110 Develop a walking trail from the Fishmarket Reserve along the Swan and Helena Rivers to the historic Meadow Street precinct at Guildford (SSC, DPUD).	No action - An informal path exists and the Shire of Swan intend to do further works subject to the availability of funds.
A111 Assess the need for the proposed Midland-Western Link Road as part of a road network study undertaken in the review of the Metropolitan Region Scheme (DPUD, MRD).	No action - The recommendation is no longer applicable.
A112 Investigate the Helena River from its confluence with the Swan River to the pipehead dam to determine areas suitable for Parks and Recreation Reservation, and landscape protection. Prepare and release for public comment a management plan for System 6 Recommendation M33 when completed (DPUD, SSC, MSC, DEP).	Seeking advice. The Shire of Mundaring is keen to ensure that this investigation is conducted. The Trust believes this should be progressed as a high priority. Progress this recommendation as a priority (SRT, DPUD, SSC, MSC, DEP).

A113 Investigate the desirability of a Regional Park linking Garvey Park, Ashfield Flats and other foreshore areas incorporating management plans prepared for A106, A107 and A109 (DPUD, SRT, BTC, BCC, SSC).	Some of this work has commenced however a Regional Park is no longer an option as the area does not conform with the current criteria. Ensure continuity between management plans (SRT).
AREA 15: WEST SWAN ROAD T	O MOONDYNE BROOK
A114 Implement Swan Valley Policy recommendations relating to the river (DPUD, SSC).	The Swan Valley Policy has been replaced by the Swan Valley Act.
	Ensure coordination between the Trust and administrators of this new Act (SRT).
A115 Develop a Landscape Protection Zone in accordance with the recommendations of the Swan Valley Policy Local Advisory Group (DPUD, SSC).	Initiated - Shire of Swan has recommended Landscape Protection Zones in its Policy Statement for the Swan Valley.
A116 Amend the Metropolitan Region Scheme between West Swan Bridge and Brigadoon to include an adequate foreshore Parks and Recreation Reservation along the river for the purpose of public access and recreation. This should take account of landscape and topographical features. Prepare and release for public comment a management plan for the area in accordance with System 6 Recommendation M19, (see Section 5.2.1), particularly addressing the issues of fire management and public access (DPUD, DEP).	No action. Progress this recommendation as a high priority (SRT, DPUD, SSC).
A117 Identify and establish a Parks and Recreation Reservation linking Avon Valley and Walyunga National Parks. This area should be managed as part of the national park system. Prepare and release for public comment a management plan for the entire area in accordance with System 6 Recommendations M16 and M18, particularly addressing the issues of fire management and public access (DPUD, CALM, DEP).	No action.

A118 Develop facilities for activities such as canoeing, overnight camping and picnicking, also develop walk paths and fence public land (DPUD, CALM, SSC, SRT).	Shire of Swan is developing these facilities as funds become available. Provision for the facilities have been included in the Shire's Community Development Plan.
A119 Seek funding to complete the proposed River Enhancement Scheme which includes walk trails, camping areas, canoe trails and picnic areas between Midland and Upper Swan (SRT, DPUD, SSC).	No action - Scheme no longer available. Combine this recommendation with Rec 118.
A120 Develop recreation nodes at Lilac Hill Park, Ray Marshall Park, Reg Bond Reserve, Middle Swan Bridge, Upper Swan Bridge and Brigadoon, (Bell's Rapids) (SSC, DPUD, SRT).	Initiated. The Shire of Swan has undertaken work at Bell's Rapids.
A121 Develop walk trails from Ray Marshall Park to Reg Bond Reserve, All Saints Church to Upper Swan Bridge, Jane Brook Winery to Gomboc Gallery along Jane Brook, and monitor problems associated with the development (DPUD, SSC).	Trail from Ray Marshall Park to Reg Bond Reserve has been completed. No plans for Jane Brook have been proposed.
A122 Develop and promote heritage trails (DPUD, SSC).	Ongoing implementation in accordance with the SRT Act and proposed management plans.
A123 Purchase land in the vicinity of Park Street/Padbury Avenue for a recreation node (DPUD).	No action.
A124 Establish an erosion control and revegetation programme in association with the local government authority and land owners. This should include control of stock (SRT, SSC).	Initiated - Guildford Grammar Management Plan has been prepared. Shire of Swan has an ongoing program of riverbank revegetation and erosion control.
	Progress this recommendation as a priority (SRT, SSC).

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A125 Assess housing, tourist developments (motels, chalets and caravan parks) and intensive agriculture proposals be required to take into account problems of nutrient enrichment and limited water exchange before development approval is given (DPUD, SSC).	with the SRT Act.
A126 Investigate suitable locations for camping and chalet facilities upstream from Jane Brook. This investigation should address problems of nutrient enrichment outlined, in Recommendation A125 (DPUD, SRT, SSC).	Insert the words "on the Swan River "after chalet facilities

## 5. **RECOMMENDATIONS**

The following recommendations were identified as the highest priority during the review. Many more recommendations are listed in Section 4.

- 1. Allocate resources and progress as a high priority the following general recommendations:
- (i) 123. Prepare a detailed management programme for the river environment. This should include development of statutory and non-statutory policies and agreements between the SRT and other agencies to manage particular areas of the river environment.
- (ii) 14. Prepare an overall landscape plan in order to coordinate landscape enhancement proposals. This should include the formation of local government advisory groups, responsible for ensuring consistency of landscape plans according to the management areas.
- (iii) 26. Prepare an SPP policy statement guiding development on and adjacent to river foreshore Parks and Recreation Reservations. This will provide local government authorities with a basis for a consistent approach to development control.

The policy should include:

- Appropriate land use controls.
- Building design and landscaping guidelines.
- Traffic, vehicular parking and parking considerations.
- Flood management and protection.
- Pollution and erosion control.

and the policy should set out clearly:

- Development application and consultation procedures.
- Criteria to be used in assessment of applications.
- 2. Allocate resources and progress as next highest priority the following general recommendations:
- (i) 3. Undertake accurate boundary definition of all existing Parks and Recreation Reservations over the river foreshore and amend the MRS accordingly.
- (ii) 27. Prepare a set of model town planning scheme provisions relating to use and development within the river environment for incorporation within local government authority town planning schemes.
- (iii) 129. Extend the Swan River Trust Management Area to include any extension to the regional Parks and Recreation Reservation adjacent to the river to enable the SRT to assist with the management and preparation of plans for land vested in other authorities.
- 3. Develop implementation plans for all area recommendations within each local government authority.
- 4. Prioritise and prepare an implementation plan for all other recommendations listed in Section 4.
- 5 Continue to review and audit recommendations contained within the Strategy. A more comprehensive review should be undertaken in five years.

## 6. CONCLUSION

The audit confirmed that the Trust and other lead agencies have significantly progressed the implementation of the Strategy since it was released five years ago.

Out of 259 recommendations only 33 have not been progressed and many of those are no longer considered necessary or appropriate.

The audit process also assisted the Trust in assessing its current position and determining future directions. Priorities for further action/implementation were also identified.

The following tables show the progress made toward implementing the Strategy over the last five years.

Table 1: Star	tus of	general	recommendations
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(n=133)

	Implemented	Ongoing	Initiated	Seeking Advice	No Action
1989 publication	7	31	9		84
1994 review	23	65	27	9	9

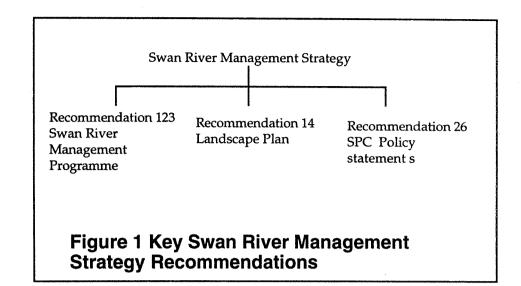
#### Table 2: Status of area specific recommendations

(n=126)

	Implemented	Ongoing	Initiated	Seeking Advice	No Action
1987 publication	4	8	34		82
1994 review	32	32	35	3	24

The review process has also confirmed that the 'vision for the river' contained in the Strategy is still relevant and the community, and local and state government agencies are all committed to the protection and enhancement of the river system.

The Strategy includes three key recommendations for the development of a more detailed management programme, Statements of Planning Policy (pursuant to the Town Planning and Development Act) and a landscape plan (see below). However none of these three key recommendations have been fully implemented. The advancement of these recommendations in seen as a priority.



Another key feature of the review is the number of recommendations that have been progressed by local government. It is encouraging to note their continuing support for the Strategy and protection of the river environment. Appendix 1 and 2 are a list of management plans progressed by the Trust and local and state government agencies.

## 7. REFERENCES

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# APPENDIX 1 MANAGEMENT PLANS

The following management planning projects were initiated by the Swan River Trust usually in association with local and/or state government agencies. These plans are designed in part to implement recommendations of the Swan River Management Strategy.

MANAGEMENT PLAN	LEAD AGENCY	STATUS
Armadale Regional Open Space Study	DPUD/SRT	Draft completed but not released for public comment by DPUD
Ashfield Parade Foreshore Management Plan	SRT	Completed
Freshwater Bay Foreshore Management Plan	SRT	Draft released
Guildford Grammar Foreshore Management Plan	SRT	Completed. Implementation of fencing, tree planting and beach renourishment components.
Lower Canning River Foreshore Management Plan	SRT	Draft released for public comment. Submission period has closed.
Rocky Bay to Point Roe Fact Finding Study	SRT	In preparation
South Perth Foreshore Management Plan (Sir James Mitchell Park)	SRT	Forwarded to Council for comment.
Swan River Landscape Plan	SRT	Seminar October 1990 and consultants selected after tenders invited and interviews conducted. Delayed due to funding.
Swan River Management Program	SRT	LGA meetings to commence
Guidelines for the preparations of foreshore management plans - a guide for proponents	SRT	Completed
Swan River Management Strategy Review	SRT	Draft completed

**Management plans advisings** - Trust officers and Trust members provide advice to local and state government agencies, community groups and tertiary institutions on the preparation of management plans. This ensures consistency and that waterways management issues are adequately addressed. Listed below are the management plans prepared or in preparation by agencies other than the Trust for areas within the Swan River Trust Management Area. The Trust is often a member of the committee overseeing the development of the plan.

MANAGEMENT PLAN	LEAD AGENCY	YEAR INITIATED	TRUST ROLE	STATUS
Alfred Cove Foreshore Management Plan	Murdoch University / CALM	88-89	Committee member	Incorporated into Marine Park Plan
Ashfield Flats and Bindaring Park Management Plans	Bassendean / DPUD	88-89 ·	Committee member	Draft completed
Bayswater Foreshore Concept Plan (Tip Sites)	Bayswater	88-89	Committee member	Became Riverside Gardens project and is being implemented
Bells Rapids Management Plan	Swan	89	Advice on draft only	Completed
Blackwall Reach Foreshore Management Plan	Melville	88	Advice on draft only	Completed
Bull Creek Foreshore Management Plan	Melville	94	Advice on draft only	Consultants appointed
Canning River Regional Park Management Plan	CALM	88	Committee member	Draft in preparation
Cantonment Hill Management Plan	Fremantle	92	Advice on draft only	Completed
Central Perth Foreshore Competition	Perth/DPUD	1989-90	Committee member	150 entries received. Competition finalised but implementation delayed

MANAGEMENT PLAN	LEAD AGENCY	YEAR INITIATED	TRUST ROLE	STATUS
Central Perth Foreshore Study	Perth	84	Committee member	Became Central Perth Foreshore Competition
Clontarf Foreshore Management Plan	South Perth	93	Committee member	Completed
East Fremantle Foreshore Landscape Study	East Fremantle	93	Advice on draft only	Completed
Jane Brook M20	Swan	94	Advising consultants to the Shire of Swan	Negotiating with developers for funds
Jerrat Drive Foreshore Rehabilitation Plan	East Fremantle	93	Advice on draft only	Completed
Leighton Peninsula Regional Park Study	DPUD	91	Committee member	Draft in preparation
M44 - Swan River Backwater	Swan	94	Advising consultants to the Shire of Swan	Swan and DPUD resolving land tenure and funding
M51 Foreshore Management Plan (Garratt Road)	DPUD	93	Committee member	Draft for study team comment complete
Matilda Bay Foreshore Management Plan	CALM	92	Advice on draft only	Completed
Mount Henry Feature Management Plan	South Perth	93	Advice	Completed
North Fremantle Foreshore Management Plan	Fremantle and North Fremantle Community Association	88	Advice on draft only	Completed

MANAGEMENT PLAN	LEAD AGENCY	YEAR INITIATED	TRUST ROLE	STATUS
Salter Point Foreshore Management Plan - Review	South Perth	93	Committee member	Completed
Swan Estuary Marine Park Management Plan	CALM	89	Advice on draft only	Draft in preparation
Waterford Reserve Foreshore Management Plan - Review	South Perth	93	Committee member	Completed
Western Foreshore Management Plan	South Perth	93	Committee member	Completed

## APPENDIX 2 COMMITTEES

Local and state government agencies, developers and proponents often seek the advice and support of the Trust on a range of other issues. The Trust is often represented on many of the committees formed to addressed such issues.

COMMITTEE	LEAD AGENCY	STATUS
Air conditioner waste water committee	SRT	In preparation
Bassendean Flood plain Steering Committee	Town of Bassendean/DPUD	Finished
Bayswater Main Drain - Integrated Catchment Management	BICM Committee	Strategy released and co- ordinator employed to implement.
Burswood Island Technical Advisory Committee	Casino	Ongoing
Canning River Regional Park Committee	CALM	Draft report in preparation. Advising on day to day planning issues.
Central Perth Foreshore Development Competition Committee	DPUD/PCC	In limbo
City of Bayswater Foreshore Planning Committee	Bayswater	Implementing Riverside Gardens Plan using Better Cities funding.
Ellen Brook Integrated Horticultural Strategy	EPA	In preparation
Fremantle and Port Precincts Co-ordinating and Technical Advisory Committee	Port Authority	Completed
Improvement Plan 20 Belmont Tip Site (Belmont Foreshores Planning Committee)	DPUD	Development plan in preparation
Jetski use in the river	DOT	Declared zones for jet ski use
Leighton Regional Park Planning Committee	DPUD	Resource study complete

COMMITTEE	LEAD AGENCY	STATUS
Maylands Peninsula Management Planning Committee	DPUD	Complete
Mosquito Control in Estuarine Wetlands	South East Metropolitan Region Committee	In preparation
River Flood plain Advisory Committees	DPUD	Finished
Skyshow Committee	SRT	Manage yearly operation of the Skyshow
Steering Committee on the Safety of Fish in the Swan River	SRT	Study complete and press release of findings
Swan and Canning River Ferry Study	DOT	Completed
Swan Coastal Plain Environmental Protection Policy Committee	EPA	In preparation
Swan River jet ski use inquiry	SRT	Terms of reference and committee being formed

#### LIST OF ABBREVIATIONS

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ACC	Armadale City Council	MSR	Ministry of Short and Damastics
ACROD	Australian Council for the	NCC	Ministry of Sport and Recreation Nedlands City Council
ACROD	Rehabilitation of the Disabled	NPNCA	National Parks Nature
ARA	Australian Regular Army		Conservation Authority
ARAWA	Amateur Rowing Association of	NSC	National Safety Council
	Western Australia	PCC	Perth City Council
Bays. CC	Bayswater City Council	PGSC	Peppermint Grove Shire Council
BCC	Belmont City Council	PZG	Perth Zoological Gardens
BFB	Bush Fires Board	SCC	Subiaco City Council
BTC	Bassendean Town Council	SEC	State Energy Commission
CALM	Conservation and Land	SES	State Emergency Service
	Management	SPCC	South Perth City Council
CAMBA	China Australia Migratory Bird	SRMP	Swan River Management
	Agreement		Programme
CCC	Canning City Council	SRMS	Swan River Management
CCWA	Chemistry Centre for Western		Strategy
	Australia (previously	SRT	Swan River Trust
	Government Chemical	SSC	Swan Shire Council
	Laboratories)	STCC	Stirling City Council
CTC	Claremont Town Council	TC	Tourism Commission
DA	Department of Agriculture	TPS	Town Planning Scheme
DEP	Department of Environmental	TS	Tree Society
	Protection	UWA	University of Western Australia
DF	Department of Fisheries	WADC	Western Australian Development
DLA	Department of Land		Corporation
	Administration	WAFB	Western Australian Fire Board
DM	Department of Mines	WAHC	Western Australian Heritage
DMH	Department of Marine and		Committee
	Harbours	WAM	Western Australia Museum
DOA	Department of Aviation	WAPD	Western Australian Police
DOSHWA	Department of Occupational,	WARG	Department
550	Safety, Health of W.A.	WARC	W.A. Rowing Club
DPC	Department of Premier and	WATEAS	Western Australian Transport
	Cabinet	337 4 337 4	Emergency Assistance Scheme
DPUD	Department of Planning and	WAWA	Water Authority of Western
EFTC	Urban Development East Fremantle Town Council	WAWS	Australia Western Australian Wildflower
EPIC	Environmental Protection	WAWS	Society
EFA	Authority	WWC	Waterways Commission
FCC	Fremantle City Council	n ne	water ways commission
GCC	Gosnells City Council		
HD	Health Department		
ILDA	Industrial Lands Development		
	Authority		
JAMBA	Japan Australia Migratory Bird		
	Agreement		
LGA	Local Government		
	Authority/Authorities		
MCC	Melville City Council		
MPTC	Mosman Park Town Council		
MRD	Main Roads Department		
MRPA	Metropolitan Region Planning		
	Authority		
MRS	Metropolitan Region Scheme		
MSC	Mundaring Shire Council		