

SWAN AND HELENA RIVER MANAGEMENT FRAMEWORK REPORT

Prepared for the Eastern Metropolitan Regional Council
September 2007



EASTERN METROPOLITAN REGIONAL COUNCIL
226 Great Eastern Highway, Belmont WA 6104
PO Box 234, Belmont WA 6984
Tel: 08 9424 2222
Fax: 08 9277 7598
Web: www.emrc.org.au

CONTENTS

SECTION

01	Introduction	5
02	Context	7
03	Major Issues	11
04	Management Framework	15
05	Planning Strategies	19
06	Precinct Plans	27
07	Next Steps	57
	References	59



The Swan River is central to the image Perth people have of their city. It is the setting that most features in the memories and descriptions people ascribe to Perth. The river is also the focus of the city's celebrations and recreation. It provides a valuable and obvious link to nature and the environment.

The conservation of the natural and cultural values of the river is the challenge to be addressed by this generation.

HASSELL Ltd 007 711 435
Podium Level Central Park 152-158 St Georges Terrace Perth WA 6000 Australia
Telephone 61 8 9288 8500 Facsimile 61 8 9322 2330
Email perth@hassell.com.au
Contact: Karen Liddell



01 INTRODUCTION

1.1 INTRODUCTION

The Swan and Helena Rivers Management Framework was initiated by the Eastern Metropolitan Regional Council (EMRC) and its member Councils, with the support and input from the Department for Planning and Infrastructure and the Swan River Trust. Representatives of four Councils (City of Belmont, City of Bayswater, Town of Bassendean and City of Swan) directly affected by the project as well as representatives from the Swan River Trust (SRT) and Department of Planning and Infrastructure (DPI) were on the Working Group responsible for overseeing the development of the framework. This document is designed to provide a strategic framework to guide the ongoing management and development of the eastern reaches of the Swan River and its major tributary, the Helena River. The study area comprises the Swan River from Windan Bridge, East Perth to Whiteman Bridge, Middle Swan and the Helena River from the Swan and Helena River confluence to Roe Highway. The management framework will enable State and Local Government, interest groups, land owners and community groups to work together on a range of projects within the study area. The EMRC and its member Councils have recognised the significance of the Swan and Helena Rivers and the value that this natural and cultural asset provides for Perth's Eastern Region.

The Swan River is arguably Perth's most loved cultural, environmental and recreational asset. From the Upper Swan Valley, to the heart of Perth City and down to Fremantle - the Swan River provides an idyllic backdrop for many public and private events that are staged on its banks. Perth residents seek out the Swan for recreational activities such as boating, walking, bike riding, picnicking and relief from the hustle and bustle of the city. A tourist's photo album would not be complete without an image of the Swan River. Perhaps the most telling measure of the Swan's value is the coveted position that a riverside address holds within the hearts and minds of Western Australians.

Ironically, the desire to be on, in, adjacent to or in view of the Swan River now threatens to permanently damage its fragile ecosystems, particularly within the eastern reaches of the Swan where much of the waterway's riverine character remains. If the natural and cultural values of the river are to be conserved for future generations, a partnership between State and Local Governments must be formed to provide immediate and coordinated action. Only a regional approach to the ongoing management and development of the Swan River will ensure the future of Perth's most valuable asset.

1.2 THE NEED FOR A MANAGEMENT FRAMEWORK

The commissioning of this Management Framework for the eastern reaches of the Swan and Helena Rivers has been borne of a recognised need for a coordinated approach to the management of the Swan and Helena Rivers within the study area.

The river is a corridor of complex natural and cultural systems that supports a range of land uses. Within the study area there are four Local Governments, plus the Midland Redevelopment Authority, responsible for the day to day development and management of the foreshore areas of the Swan and Helena Rivers. The Swan River Trust, together with a number of State Government agencies, have jurisdiction or management responsibilities and interests related to the rivers. The feedback gathered from Local Government and State Government agencies indicate that these authorities often have different approaches/objectives to the management of the rivers due to different departmental requirements and priorities.

In contrast to this, the rivers are a natural system and a diverse environmental resource that are not constrained by jurisdiction or land management boundaries and require a consistent approach to management to balance use with the conservation of natural and cultural values. An agreed management framework is necessary to provide the 'ground rules' to establish partnerships between relevant State agencies and Local Governments and other interested groups, to ensure a coordinated approach to the overall management of the rivers and their systems.

In addition to the environmental and cultural management issues associated with the rivers, the rivers have an economic value which benefits the adjacent land uses. The protection and enhancement of the rivers will not only ensure the environmental integrity of the rivers is preserved for future generations, but also protect the rivers as an economic resource.

The framework documented in this report identifies roles and responsibilities of State and Local Government authorities and strategic management activities. It provides an over arching plan that will lead toward the achievement, in the longer term, of a river corridor embodying the major objectives and concerns of its users, managers and the local community.

There can be no doubt that the river corridor has the potential to become a greater asset for Perth's Eastern Region, a potential that is currently compromised by a lack of coordination and management. It is intended that the actions arising from this plan will be decisive in realising the full potential of this natural and cultural asset.



The relatively calm and protected Swan River waterway is well suited to rowing.



Events such as the Avon Descent help encourage interest in canoeing at the competitive as well as the recreation level.



Jetties and pontoons help provide a diversity of access to enjoy the river amenity. Many of these structures require repair or replacement if a diversity of opportunities for interaction with the river are to be provided.

1.3 DOCUMENT FORMAT

The Swan and Helena River Management Framework document contains background information, analysis, and plans for the coordinated enhancement and management of the foreshore. The information provided in the document has been based on:

- a review of relevant existing literature;
- site reconnaissance from the views, adjacent banks, parks and the waterway;
- one-on-one consultation with key government stakeholders and relevant interest groups; and
- the project team's experience in the planning, design and management of urban rivers elsewhere in Australia.

The document provides the essential planning tools in the form of strategies, which are designed to guide foreshore improvement projects within the Swan and Helena Rivers study area. All recommendations and actions proposed in the document are in keeping with the vision formulated jointly by the Western Australian Planning Commission (WAPC) and the Swan River Trust (Statement of Planning Policy), and the key issues influencing the river foreshores identified by stakeholders. The proposed Management Framework identifies roles and responsibilities of the key government stakeholders (State agencies and Local Government) required to provide a coordinated approach to the implementation of this study.

The study area has been divided into precincts consistent with precinct boundaries established by the Swan River Trust's Landscape Description, with Precincts 8, 9, 10 and 14 of that document corresponding to Precincts 1, 2, 3 and 4 in the Precinct Plan Index (see Page 4) adopted for this document. Within each precinct, key activity nodes (cultural or natural) and key systems are identified. For each precinct, a summary table is provided which identifies issues and actions relating to the foreshore. Priorities for actions are also identified.

Specifically, the document contains:

Section 1: Introduction

This section provides an introduction to the project and identifies the basis for its initiation. The need for a management framework is identified together with an overview of the document format.

Section 2: Context

Section 2 provides an overview of the statutory context within which the management framework will operate. Key documents that have a direct relationship with the framework are summarised in this section.

Section 3: Major Issues

Major issues arising from the consultation phase are identified in Section 3. Consultation was undertaken with key government agencies and relevant groups to identify the major issues and aspirations of each group with respect to the ongoing management, maintenance and development of the river foreshores.

Section 4: Management Framework

This section details the proposed management framework, outlining the roles and responsibilities of key agencies.

Section 5: Planning Strategies

Section 5 identifies the planning strategies to be prepared under the management framework. The strategies identified are grouped under social benefits, environmental values, cultural and natural heritage and design and development. The authority responsible for the preparation of each strategy is identified along with a time frame for its preparation.

Section 6: Precinct Plans

A plan has been prepared for the foreshore within each precinct identifying key activity nodes, conservation nodes and systems. A complementary precinct table accompanies each plan and provides an overview of issues, actions, responsible authority and priority actions for each node.

The precinct plans focus on the designated foreshore areas, however it is acknowledged that the rivers viability is affected by other strategic plans relating to development beyond the foreshore. Some of these influences are canvassed in the document to give context to the foreshore development and management.



Fishing is most popular on jetties and pontoons.



This trail is informal yet defined and in keeping with the natural setting.

“The river, about which the Metropolitan Region has developed, provides a setting matched by very few cities in the world. Not only does its cool, blue expanse appear in delightful views from many points, but its waters also give infinite pleasure to thousands of children, yachtsmen, fishermen and swimmers. It is in effect a vast and magnificent wedge of open space driving right into the heart of the metropolis and, together with the beaches, it provides the framework upon which the Regional Open Space system is based.” (Plan for the Metropolitan Region Perth and Fremantle, 1955)

02 CONTEXT



River edge treatment at Point Fraser is a good example of riverbank works in keeping with the riverine environment and characteristics of the location.



Vineyards at Caversham are a feature of the landscape upstream of Guildford.



The foreshore in the study area is generally a diversity of settings incorporating natural vegetation, introduced plants and built structures. However, the planting of exotic species and installation of inappropriate structures detracts from the local amenity and site quality.

2.1 BACKGROUND INVESTIGATIONS

The management framework presented within this document is designed to embrace and incorporate a variety of programs given effect through a range of legislation. By way of context to the management framework, the most notable of these are overviewed in this section.

Over the past 17 years, a number of studies have been undertaken relating to various aspects of the river. Many of the documents produced focus on individual issues (e.g. landscape, environmental) with little integration or coordination. The Management Framework does not replace previous studies or change legislative responsibilities, but rather builds upon these to identify conservation and development strategies and the coordinated effort required to tackle a range of often large scale initiatives on a systematic basis.

2.2 METROPOLITAN REGION SCHEME 1963

The Metropolitan Region Scheme 1963 (MRS) was prepared in accordance with the Metropolitan Region Town Planning Scheme Act 1959. The functions of the MRS are essentially to:

- provide a regional framework for the growth of the metropolitan area.
- reserve land in the metropolitan region and purchase it for regional purposes (e.g. roads and parks) using funds from the Metropolitan Region Improvement Fund;
- identify non-reserved land and classify it into zones; and
- control development on reserved and zoned land.

These functions are performed through the WAPC. In regard to the Swan and Helena Rivers, the WAPC is responsible for acquiring land within the foreshore reserve for regional parks and recreation and the interim management of that land. The WAPC also has a planning approval role where development applications for land, partially within, or adjacent to the Swan River Trust Management Area must be lodged with the WAPC for determination. Under current arrangements, the WAPC is also responsible for the interim care, control and management of land acquired under the MRS.

In regard to the proposed Management Framework, the WAPC will continue to exercise its role as the state planning authority in accordance with the MRS, and therefore its requirement to acquire land for the provision of regional reservations.

2.3 SWAN RIVER MANAGEMENT STRATEGY 1988

The Swan River Management Strategy was prepared in 1988 following the establishment of the SRT. The strategy provides an overall framework for the conservation, use and development of the river. Two of the principal objectives of the strategy are to “ensure that land use and development on and adjacent to the river maintains or enhances the quality and amenity of the river environment” and to “balance the completing demands for use and development with the need to conserve and enhance the functional healthy river environment for the enjoyment of the present and future generations” (Source: Swan and Canning Rivers Precinct Planning Project).

The strategy contains over 250 recommendations relating to foreshore reserves, landscape protection, public access, urban development, commercial development, water supply and drainage, floodplain management, road network and water transport.

The information contained in the strategy has been used to inform the preparation of the Management Framework.

2.4 SWAN RIVER TRUST ACT 1988 (WA)

The *Swan River Trust Act 1988 (WA)* established the Swan River Trust (SRT) Management Area, and set up a specific administrative process for decision making for development relating to the Swan and Canning River System. The Act provides the SRT with planning approval authority for development applications within its Management Area. Applications for development on land abutting waters within the SRT Management Area or abutting the SRT Management Area are referred to the SRT for consideration and advice, but determined by the WAPC.

The SRT also undertakes regional river bank maintenance. The SRT has prepared a number of documents over the years. One of the current projects is the Foreshore Assessment Study. The strategies and actions proposed in the Management Framework will complement and assist in the preparation of foreshore assessments relating to the eastern reaches of the Swan.

The new Swan and Canning Rivers Management Act 2006 (WA) will enable the SRT to provide leadership and coordination in management of the river.

2.5 SWAN RIVER SYSTEM LANDSCAPE DESCRIPTION

The Swan River Landscape Description was prepared in 1997, as a result of a recommendation of the Swan River Management Strategy. The document describes the geology, topography, hydrology, vegetation, land use, landscape, views and cultural significance of the Swan and Canning Rivers and provides extensive resource and descriptive material on their landscape character and quality.

The document identified 23 precincts throughout the Swan and Canning River System and recommended that plans be prepared to guide decision-making in relation to the development on and adjacent to the river in order to protect the river landscape. For consistency, this framework uses the precinct boundaries established in the Landscape Description document and covers Precincts 8, 9, 10, and 14. The resource information contained in the descriptions have also been considered in the formulation of planning strategies.

2.6 THE SWAN AND CANNING RIVERS PRECINCT PLANNING PROJECT

The Swan and Canning Rivers Precinct Planning Project was a joint initiative between the SRT and the Department for Planning and Infrastructure (DPI) in 2002. The project was intended to:

- encourage community, industry and Government decision-makers to play an active part in conservation and enhancement of the river;
- provide a strategic and co-ordinated policy framework to guide decision-making;
- ensure that the landscape value of the river, as informed by the Swan River Landscape Description, is comprehensively addressed in the decision making process; and
- support appropriate uses and development within the river setting that add value to the quality and amenity of the river environment.

The Precinct Planning Project is a multi-layered project comprising a vision statement, guiding principles, statement of planning policy and precinct plans. A Precinct Plan Handbook has also been produced to assist Local Government authorities with the preparation of the plans by providing a step-by-step framework to guide the process. The framework proposed by the project is shown in **Figure 1: Precinct Planning Project Framework (right).**

It is suggested that this structure be used to assist in the implementation of the Management Framework. The strategies and actions proposed in this study would be used to inform the preparation of precinct plans in order to establish greater guidance and continuity to works.

2.7 RIVERPLAN - AN ENVIRONMENTAL MANAGEMENT FRAMEWORK FOR THE SWAN AND CANNING RIVERS

Riverplan was prepared by the Government of Western Australia in 2004 and is an implementation strategy for the Environmental Protection (Swan and Canning Rivers) Policy 1998. It seeks to establish an over arching and comprehensive environmental management strategy to ensure the environmental values of the Swan and Canning Rivers are protected. It also considers external influences on the waterway and foreshore of the rivers.

The SRT Riverplan Implementation Team has been established to co-ordinate implementation of the strategy in partnership with key organisations responsible for individual management activities. A River Protection Strategy is to be prepared following the adoption of the Swan and Canning Rivers Management Act 2006 (WA). The River Protection Strategy will replace Riverplan (refer section 2.11), which will remain in effect until approval of the Strategy.

2.8 SWAN RIVER CONCEPT PLAN

The Swan River Concept Plan was prepared in 2004 for the EMRC as a preliminary research and consultation report to this current project. The purpose of the report was to “present findings of initial research into potential land uses and areas along the Swan River and adjacent lands in the eastern metropolitan region that may be suitable for conservation, protection, rehabilitation or recreation” (Swan River Concept Plan, 2004).

The concept plan relates to the same study area as this management framework, and has been used as a reference tool for the preparation of this document.

2.9 SWAN REGION STRATEGY FOR NATURAL RESOURCE MANAGEMENT

The Swan Region Strategy for Natural Resource Management was prepared by the Swan Catchment Council (SCC) in 2004. The aim of the Strategy is “to ensure that the natural resources of the Region will be protected and managed sustainably to enhance the quality of life for present and future generations” (Swan Region Strategy).

The strategy was based on the following core elements: Biodiversity; Conservation; Sustainable Use of Natural Resources; and Community Capacity Building and Institutional Change.

The strategy proposed four regional delivery programs with over 70 recommended management actions. It is envisaged that the work being undertaken by the SCC, in association with other agencies, will be a key resource in detailing proposals identified in this management framework.

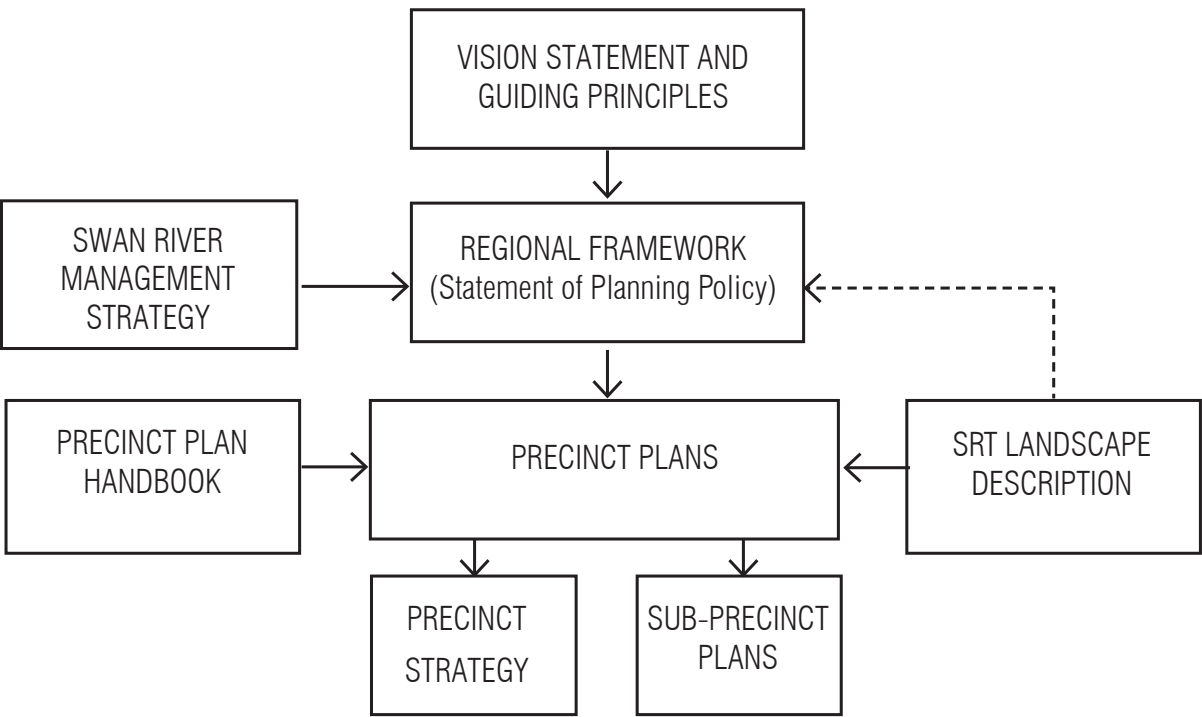


Figure 1: Precinct Planning Project Framework
Source: Swan and Canning Rivers Precinct Planning Project

02 CONTEXT



Good shade from adjacent trees provides a setting suitable for picnics.



A coordinated suite of site furniture designed to meet current standards and codes should be installed along the river to replace existing furniture.



People enjoy riverside settings for a variety of family and group pastimes. Setting which provide shade are most popular.

2.10 STATEMENT OF PLANNING POLICY 2.10: SWAN-CANNING RIVER SYSTEM

A Statement of Planning Policy 2.10: Swan-Canning River System (SPP) was adopted in December 2006 by the WAPC as a result of the Swan and Canning Rivers Precinct Planning Project. The policy applies to the 23 precincts described in the Swan River System Landscape Description. The policy provides objectives, identifies a vision statement for the river, prepared by WAPC and SRT, key issues that should be taken into account in planning and decision-making in relation to the Swan-Canning Rivers, and provides a context for the preparation of precinct plans. Decision makers and organisations proposing works along the river are required to have regard to this policy, when planning, providing recommendations or determining proposals that may affect the river.

The objectives of the SPP are to:

- provide a regional framework for the preparation of precinct plans based on the precincts identified in the Swan River System Landscape Description;
- provide a context for consistent and integrated planning and decision making in relation to the river; and
- ensure that activities, land use and development maintain and enhance the health, amenity and landscape values of the river, including its recreational and scenic values.

The SPP provides a vision statement and policies for the Swan and Canning River systems based on guiding principles as follows.

Our vision for the river and its setting is that it displays its true worth as a sustaining resource to Aboriginal society over many millennia and as the foundation of European settlement in Western Australia.

We are committed to protecting and enhancing the river by respecting its environmental values, social benefits and cultural significance. We will guide adjacent land use, civic design and development to ensure that the value of the river and its setting to the community is maintained. (SPP, 2006)

Guiding Principles of the SPP relate to:

- Social Benefits
- Environmental Values
- Cultural and Natural Heritage
- Design and Development

The vision statement and guiding principles have been adopted for this study. As this study is planning based and seeks the coordination of State Government agencies, the SPP provides an appropriate basis to follow to ensure alignment with broader state planning policy.

2.11 SWAN AND CANNING RIVERS MANAGEMENT ACT 2006 (WA)

The Swan and Canning Rivers Management Act 2006 (WA) (the 'Act') was passed by Parliament in September 2006 and replaces the Swan River Trust Act. The Act is expected to come into effect in 2007 and will improve the coordination and management of activities that affect the Swan and Canning Rivers in order to protect the health and amenity of the rivers.

The new Act will:

- make provision for the protection and enhancement of the ecological and community benefits and amenity and amenity of the Swan and Canning Rivers and associated lands.
- improve the State's ability to coordinate management of activities that may affect the Swan and Canning Rivers.
- Replace the *Swan River Trust Act 1988* and the *Environmental Protection (Swan and Canning Rivers) Policy 1997*.
- consolidate these two statutes as the basis for effective protection of the health of the Swan and Canning Rivers. This will be achieved through:
 - establishing the Swan and Canning Riverpark and joint responsibility for management of its shorelines;
 - enabling ecological and community benefits and amenity targets to be set for the protection of the Riverpark, and establishing the role of State agencies and Local Governments in working to achieve these objectives;
 - enabling development of a River Protection Strategy and the associated management plans necessary for achievement of targets;
 - providing arrangements for collaborative agreements between the Swan River Trust and others to achieve the objectives of the legislation;
 - providing opportunities for community involvement in establishing targets and management arrangements;
 - establishing arrangements for assessing and reporting on the implementation of management arrangements and the achievement of targets;
 - reconstituting membership of the Swan River Trust;
 - streamlining and providing more transparent processes for assessment of development proposals affecting the rivers; and
 - establishing more effective enforcement arrangements.

The new Act will provide the SRT with the ability to undertake a leadership role in the implementation of the management framework for the study area proposed in this document.

The most notable of the Act's features for the Swan and Helena Rivers Management Framework is the creation of the Swan Canning Riverpark. As part of this project, a River Management Program will be developed to integrate management of the waterways and the adjacent reserves.

The creation of a 'Riverpark' under the Act will provide the statutory framework for the concept of a 'Middle Swan and Helena Regional Park' that is referred in this document.

"The greatest challenge in achieving healthy (New South Wales) rivers is not lack of will, nor lack of science, but rather a lack of integrated effort." (NSW Healthy Rivers Commission 2003, as in New era for the river – Swan and Canning Rivers Management Bill 2005)

03 MAJOR ISSUES

3.1 REVIEW OF MAJOR ISSUES

An important component of the study has been consultation to gain an understanding of key issues affecting the river foreshores. Consultation, primarily involved one-on-one interviews with 25 representatives (officer level), from key government agencies including:

- City of Belmont
- City of Bayswater
- Town of Bassendean
- City of Swan
- Swan River Trust
- Eastern Metropolitan Region Council
- Midland Redevelopment Authority
- Swan Catchment Council
- Department for Planning and Infrastructure

The consultation proved to be most useful in that it confirmed general support for the high level planning initiatives and proposals for the river system as a whole. It confirmed the value of the Swan and Helena Rivers to stakeholders and the importance of maintaining its cultural and natural heritage values. However the consultation also identified a number of major issues that are impediments to achieving coordinated, effective results for what is a very large project. These related to the approvals system and the environmental, recreational and visual quality of the river. The key issues raised are discussed in the following general categories:

- Approval process and lack of regional coordination
- Aboriginal consultation process
- Access to the foreshore
- Management / maintenance of the river banks.

In the following sections a summary of the issues is given followed by an overview of aspirations to resolve the issue.

3.2 APPROVAL PROCESS AND LACK OF REGIONAL COORDINATION ISSUE

The management and control of Swan and Helena River foreshores primarily falls under the jurisdiction of Local Government and two State agencies:

- Swan River Trust; and
- Western Australia Planning Commission / Department for Planning and Infrastructure (DPI).

It was acknowledged the two agencies have different administrative and legislative responsibilities. However, it was felt by Local Government stakeholders that there is a lack of coordination between the agencies at a regional level. This is resulting in uncertainty among stakeholders when it comes to planning and managing the foreshore.

While the approval process is relatively clear and understood by all parties, the lack of a regional plan guiding foreshore development is causing frustration for applicants when seeking development approval. Local Governments are undertaking development within their foreshore areas primarily based on their own requirements, with little knowledge or understanding of the wider regional requirements. This is resulting in a difficult approval process for the applicant as State government agencies exercise caution in determining applications largely due to a lack of an agreed regional development and management plan for the river. Where approvals are granted, development is often 'ad hoc' and not coordinated to achieve significant foreshore improvements or multiple benefits.

ASPIRATION

Develop a strategic plan for foreshore development to provide Local Governments and relevant State agencies with a framework to work within when undertaking planning, design, development, conservation and maintenance of the foreshore.



Plans for the development of activity nodes must address bank stabilisation and the presentation of the site from the river.



Effective guidance from the State is required to assist Local Government in undertaking upgrading and redevelopment activities.



Design guidelines for facilities within the floodplain, and requiring a direct connection to the river, are required to ensure multiple use outcomes are achieved.

3.3 ABORIGINAL CONSULTATION PROCESS

ISSUE

Stakeholders specifically identified a key issue of concern as being the Aboriginal consultation process. It was acknowledged by all groups that the Swan River is a registered Aboriginal site of significance with many other locations within the foreshore reserve also being registered sites. As a result, any development proposed within the foreshore reserve requires a Section 18 clearance under the Aboriginal Heritage Act 1972.

While the development approval process is relatively clear and understood by all interested parties, the associated consultation process is considered to be costly, uncoordinated at the regional level and inefficient.

The main areas of concern relate to the identification of appropriate stakeholders, variations in consultation requirements and the cost incurred throughout the Aboriginal consultation process.

In an effort to arrive at an acceptable strategic level of consultation process, the views of the Department of Indigenous Affairs (DIA) were canvassed. Officers of the DIA indicated a single advisory group would be appropriate to achieve a strategic level assessment of the foreshores in the area covered by this study. Precedents for this approach included Champion Lakes, Armadale and Kings Park.

It was acknowledged by the stakeholders that Aboriginal consultation is an issue that has wider ramifications than this project. Therefore it is suggested the matter needs to be taken up by the State Government and the Western Australian Local Government Association (WALGA).

ASPIRATION

The State Government and WALGA address the issue of Aboriginal consultation to clarify the appropriate process and procedures for indigenous consultation for development on and adjacent to the waterway and foreshore of the Swan and Helena Rivers.

Engage in early consultation with Aboriginal communities, possibly through an advisory group, to obtain a regional level approach to planning development prior to site specific management and design being undertaken so that Local Government has greater certainty.

3.4 ACCESS AND IMPROVEMENT TO THE RIVER FORESHORE

ISSUE

The issue contained three (3) key elements:

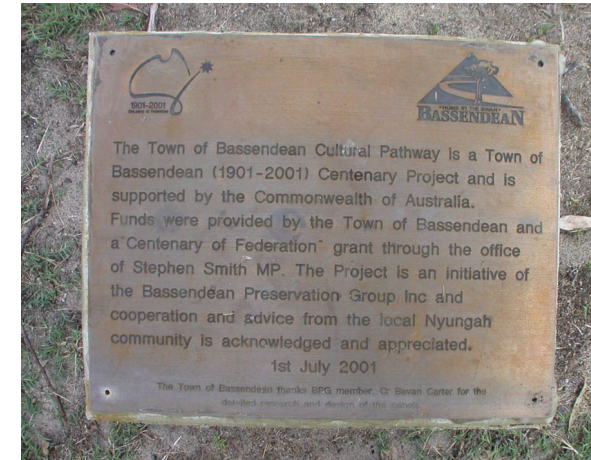
- lack of continuous public access to the foreshore in the form of heritage and recreation trails;
- poor quality of regional facilities within the foreshore reserve; and
- lack of guidance for redevelopment within the floodway or floodplain and adjacent foreshore area.

The desire for continuous public access along the foreshore has long been a part of State planning policy dating back to the Stephenson Hepburn Plan 1955. Related issues include continuous formal pathways and public reserves along the foreshore. Currently, foreshore reservations are acquired by the WAPC by purchase as funding and priorities permit. Alternatively foreshore reserves may be imposed as a condition of subdivision. Approximately 80% of the major metropolitan river system foreshores are in public ownership through either the State or Local Government.

It is considered that the process of foreshore land acquisition, by way of land subdivision, is slow and uncoordinated. A more active program of targeted acquisitions is recommended to consolidate priority areas identified in the strategic plans to be prepared for the rivers. The acquisition process needs to respect the timeframes, rights and circumstances of private landowners to seek an acceptable and amicable land transfer process.

Once acquired by the State Government, the land is maintained by the State until such time as the maintenance and management can be transferred to the local authority. This process of land acquisition can create problems for Local Government in establishing budgets or works programmes, where timeframes for land acquisition and/or transfer of land management are not communicated in advance.

The need for a coordinated approach to the location and planning of regional facilities was seen as important in order to conserve and capitalise on the values of this part of the river and use these as the basis for creating an identity for the eastern reaches of the river. This also included concern for the duplication of facilities as well as the provision of standards of development necessary to cater for the enjoyment of the river by people who reside remotely from it. A standard design for heritage and other recreational trails, regional park furniture, regional signage, educational and interpretive programs was considered by stakeholders as beneficial.



Interpretive signage is being implemented along the river. For regional sites, guidelines for a coordinated suite of information and interpretive signs should be prepared to aid clarity and ensure consistent quality.



The Aboriginal community is consulted prior to improvements to registered Aboriginal sites. A coordinated suite of interpretive signage should be prepared to convey Aboriginal significance to the community.

03 MAJOR ISSUES



These three photographs illustrate the significance of existing bank erosion and undercutting in the upper reaches of the Swan River. Significant and large scale remediation works are required to address the problem through a whole of government approach.



Much of the river foreshore land in public ownership is potentially affected by flood. However there is considerable pressure on Local Government for the development of this land to cater for community facilities and regional water based recreational use activities. Local Government stakeholders feel current control on some forms of development in flood affected land does not allow it to effectively respond to demand, which will continue to increase as Perth grows.

ASPIRATION

Prepare a strategic acquisition plan to guide the acquisition of private land to enable continuous public access to the foreshore in an environmentally sensitive and sustainable manner. Develop a consistent standard or guidelines for the construction of regional facilities and for construction of facilities within the floodway or floodplain.

3.5 MANAGEMENT/MAINTENANCE OF THE RIVER BANK

ISSUES

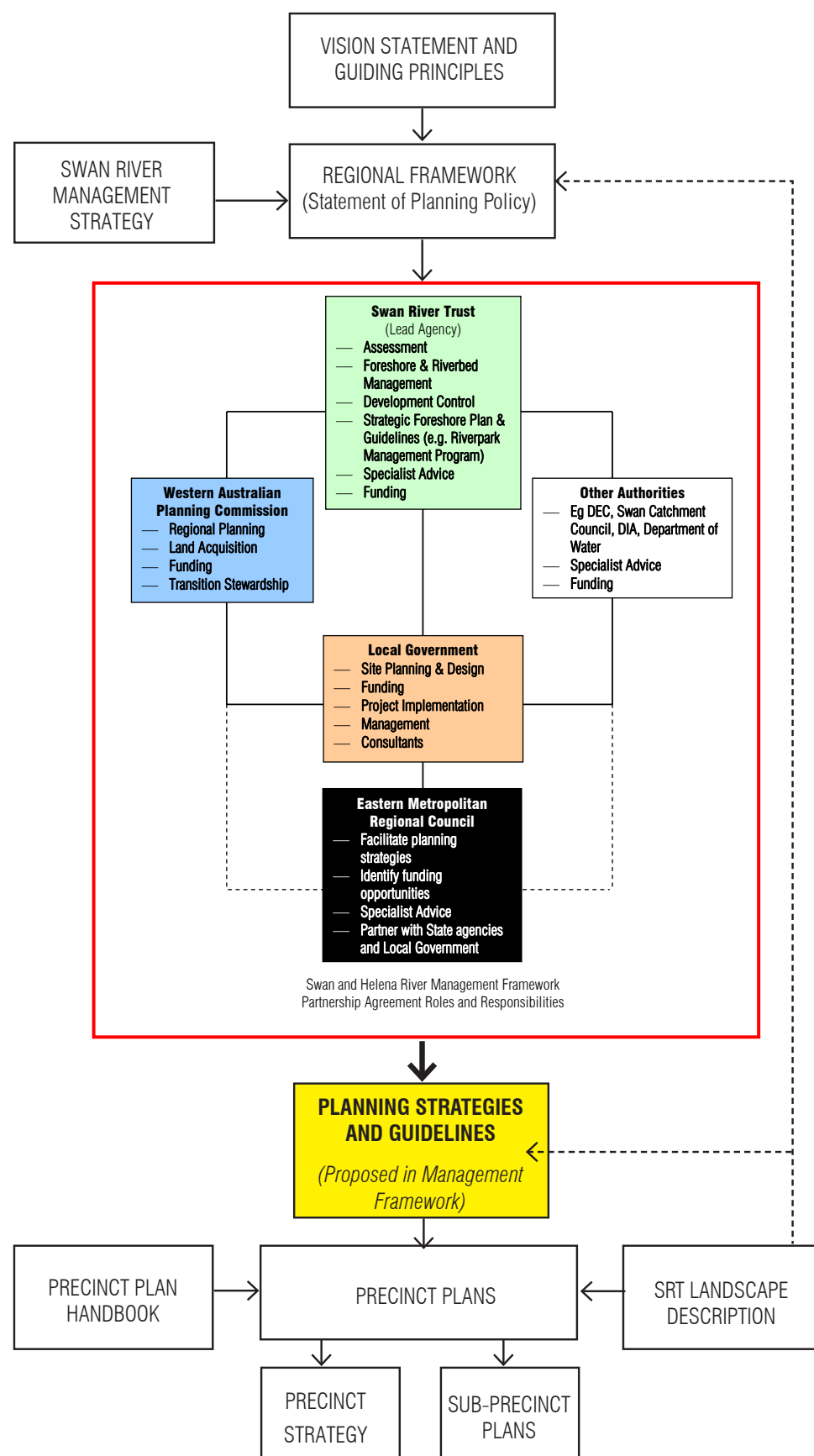
It was widely acknowledged that the river bank within the study area is more naturalistic than other parts of the Swan River, and that the increasing demand being placed on this part of the river for recreational activities, both foreshore areas and the waterway, is adversely impacting on the stability of the river banks. Indeed it is considered that if major measures are not taken immediately to arrest and repair bank erosion, the largely naturalistic character (the associated natural and cultural values) of the Swan River in the eastern reaches will be lost forever.

There is technical work being undertaken by SRT on river bank assessment and maintenance. However, some Local Government stakeholders expressed concern that this information is not translating into practical guidelines that can be easily accessed and implemented. In addition, there is confusion between State and Local Government as to roles and responsibilities for river bank works. This lack of guidance is compounded by lack of funding to undertake the required works, which are significant in scale and potential cost.

ASPIRATION

A partnership approach to address the issue of river bank management and maintenance. The establishment of an effective partnership agreement between State agencies and Local Government to facilitate such works.

04 MANAGEMENT FRAMEWORK



The conservation and renewal of their urban waterways is the objective of most of the world's cities. City governments understand the importance of their waterways to the well being of their citizens and their economies. After 200 years of European settlement all Australian cities recognise the importance of implementing initiatives to conserve their valuable rivers for the benefit of future generations. Success will be assured if those involved:

- recognise that river and related foreshore works are by their nature major and costly;
- commit to immediate intervention to arrest bank erosion because once collapsed, the banks of Australian rivers do not have the capacity to readily restabilise/regenerate;
- understand and accept that effort is required in partnership at all levels of government, particularly the State level for leadership, guidance and funding. This effort needs to be directed in a coordinated manner and those involved must understand their role in the planning, design and conservation and management of the river and its foreshore.

In undertaking this project, it became apparent that while all stakeholders generally understood the need for and scope of conservation, development and management required, there was no clearly understood means to marshal and apply resources in an effective and coordinated manner. It was also felt by Local Government that there was a lack of sufficient resources and skills available to achieve the objectives for conservation and management that had been established via various studies and legislation over the last 20 years. It was acknowledged by stakeholders that the level of funding and resources needed to be commensurate with the State scale significance of Perth's major waterway. In response to this it was agreed this project would consider how these concerns and impediments could be addressed. To this end a 'management framework' was developed in consultation with stakeholders to identify 'how' plans could be implemented in a coordinated manner and via a "partnership" involving stakeholders at all levels of government. The management framework is overviewed in the following sections of this document.

4.1 PROPOSED MANAGEMENT FRAMEWORK: AN OVERVIEW

The proposed management framework works within the existing statutory framework to improve coordination between all parties with an interest in the management and maintenance of the Swan and Helena Rivers. Other forms of management may be more appropriate for other reaches/regions of the Swan and Canning River system due to natural, cultural or historic differences.

This suggested framework has been developed to facilitate works being undertaken within the study area through a consistent approach in partnership with State agencies and Local Government.

As previously mentioned there are a number of agencies with an interest in the development and management of the foreshores, with each working towards its own vision and priorities. In order to provide consistency between documents and organisations, the vision statement proposed in the SPP has been adopted as the vision for this study. Therefore, actions and plans for the study areas should be made in the context of the following statement from the Statement of Planning Policy 2.10: Swan-Canning River System.

Our vision for the river and its setting is that it displays its true worth as a sustaining resource to Aboriginal society over many millennia and as the foundation of European settlement in Western Australia.

We are committed to protecting and enhancing the river by respecting its environmental values, social benefits and cultural significance. We will guide adjacent land use, civic design and development to ensure that the value of the river and its setting to the community is maintained.

Working within the framework established by the Precinct Planning Project, it is suggested that the proposed management framework would coordinate the relevant authorities within the context of a management agreement to produce strategic strategies and guidelines. These strategies and guidelines could then be used to inform the preparation of detailed precinct plans which would be prepared by Local Government as outlined in the Precinct Planning Project. The Proposed Management Framework is illustrated in Figure 2 (left).

Figure 2: Proposed Management Framework

4.2 ROLES AND RESPONSIBILITIES

Prior to identifying the various actions and strategies required, it is necessary to identify the roles and responsibilities of the agencies responsible for implementation. The management framework proposes that the agencies identified would be working within the parameters of a formal agreement between all parties towards the implementation of agreed actions for the general betterment of the Swan and Helena River foreshores within the study area. (Refer to Figure 2: Proposed Management Framework). The following is a description of the roles and responsibilities that each agency would have under the proposed management framework.

SWAN RIVER TRUST

The SRT will have the lead role for the planning, development, funding and management in accordance with the statutory powers provided to it under existing legislation and the Swan and Canning Rivers Management Act. Commensurate with this role, the SRT is expected to have the necessary expertise and resources to prepare technical management plans, guidelines, and to fund and coordinate major works.

It is suggested that under the Swan and Helena River Management Framework Partnership Agreement, the SRT would be responsible for the following:

- metropolitan river planning and development control
- undertaking regional base line studies (e.g. water quality, ecology, bank quality, regional demand, construction in flood liable land etc).
- preparation of regional conservation and development plans and guidelines for facilities/works that transcend Local Government boundaries (e.g. bank stabilisation, trails, vegetation management, signs etc.)
- facilitation of development approval (within and adjoining SRT Management Area) with specific responsibility for Aboriginal consultation and associated regional scale development approvals
- specialist expertise to Local Government and DPI
- administration of waterway use including boat type, speeds, boating activities
- funding capital works (in partnership e.g. Natural Heritage Trust) e.g. River bank, protects bank stabilisation and enhancement of the environmental, cultural and public amenity values of the foreshores. Projects are to be based on partnership arrangements with Local Governments and seek to involve community participation wherever possible. Funding may be total or involve matching financial and in kind support from project partners.

WESTERN AUSTRALIAN PLANNING COMMISSION

The Western Australian Planning Commission (WAPC) has a broader statutory role than the management of the Swan and Helena Rivers. The WAPC performs a regional planning role with a specific objective of land acquisition and stewardship. It is proposed that the role of the WAPC, within the context of the Swan and Helena River Management Framework Partnership Agreement, would remain unchanged. However its operations would be coordinated with the overall objectives of the study. The WAPC, through the Department for Planning and Infrastructure would be responsible for the following.

- planning for and implementing land acquisition along the foreshore
- interim land management responsibility of acquired land
- assist with regional planning to facilitate development and conservation objectives
- funding capital works (in partnership).

LOCAL GOVERNMENT

Local Government is currently in the most challenging position with regard to meeting local community expectations for the Swan River foreshore and it adjacent areas. With limited resources and technical expertise, Local Government undertakes an active management role of a regional asset for the Perth community. Under the proposed management framework, Local Government would still be required to perform a maintenance and management role, however the proposed management structure will provide it with greater access to expertise, resources and funding.

It is also proposed that initiatives and projects be shared among the Local Governments through the assistance of the EMRC. This will also ensure that information is disseminated to all member Councils, resulting in a consistent understanding and approach toward regional river management issues. It is suggested that the following tasks would be the responsibility of the Local Government:

- preparation of Precinct Plans
- design and construction of minor works and local river initiatives as opposed to regional works
- care, control and management of river foreshore reserves under their control
- funding of capital works (in partnership)
- maintenance works.



Steep river banks are a barrier to continuous public access along foreshore. This has been overcome at Mosman Park by a boardwalk along the bank as shown in this photo. Pontoons perform a similar function on the Yarra River in Melbourne. Such measures can be considered for areas of restructured foreshore reserve in this eastern section of the river.



Private ownership and associated development to the waters edge limits public access along the foreshore.



Design guidelines focused on providing a quality of consistent standard and structures along the foreshore are required for all elements of park development.

04 MANAGEMENT FRAMEWORK



Recreational trails along some areas of the foreshore are not formalised or defined, resulting in additional impacts on the quality of the foreshore vegetation. However, they do provide access to a variety of settings. A balance is required between access provision and impact mitigation by implementing best practice design standards.

OTHER AUTHORITIES

A range of other authorities will play a critical part in the management and maintenance of the river foreshore. Other authorities are not limited to but may include the Department of Environment and Conservation, Department of Indigenous Affairs, Swan Catchment Council, Water Corporation and Department of Land Information.

These “other authorities” often have specialist skills and access to additional funding sources that can assist in the ongoing management and maintenance of the foreshore. To assist in coordination, the application of their resources and skills will be via the Swan River Trust at the regional level and the member Councils and EMRC at the district or local level.

It is suggested that other authorities would be sourced on an ‘as needs’ basis however, would still operate within context of the Swan and Helena River Management Framework Agreement. These authorities would liaise directly with the SRT, EMRC, DPI or Local Government in order achieve required outcomes. Some areas where other authorities would provide input include:

- advice and services relating to the specialist aspects such as flood
- controls/construction in flood liable land, revegetation management, water quality, cultural heritage etc
- access to additional funding sources
- provision of specialist resources to assist with the provision of on-ground works and the planning of community and recreation facilities

EASTERN METROPOLITAN REGIONAL COUNCIL

The Eastern Metropolitan Regional Council (EMRC) currently performs a regional advisory service and project support function on behalf of its member Councils in a range of areas directly relevant to the Swan River, including Regional Development and Environmental Services. Under the proposed management framework, the EMRC would partner with the member Councils and State Government agencies in agreed activities associated with the implementation of the planning strategies and precinct plans. To perform this role, the EMRC’s current role would need to be strengthened to provide the EMRC with an increased coordination role in regional scale activities related to the Swan River and involving member Councils. In addition, the EMRC would need to undertake an enhanced facilitation role in brokering outcomes between the member Councils and various State Government agencies.

The EMRC has been given a key role in the proposed framework as it is considered to be the most appropriately placed organisation to undertake the regional facilitation role and close the “gap” in management requirements and priorities between State Government agencies and Local Government.

The EMRC has the required expertise and capability to work closely with key stakeholders and provide assistance in the implementation of regional strategies and actions. The EMRC is also ideally placed to report on the progress of regional scale activities undertaken in partnership with member Councils and State Government agencies, in accordance with agreed priorities and funding commitments.

Specific tasks to be performed by the EMRC may include:

- providing assistance in the coordination of planning strategies and precinct plans required under the management framework
- supporting the member Councils in river planning, design and development of activities
- undertaking a project management role for agreed projects and activities, in partnership with stakeholders
- providing of specialist advice to member Councils and State Government agencies on regional scale activities and priorities
- securing and administering State and Federal Government funding for conservation and development programs and projects as required
- monitoring and reporting on the progress of regional initiatives and member Council achievements in river programs and projects

05 PLANNING STRATEGIES

5.1 STRATEGIES

It is necessary to embark upon most of the strategies documented herein in the short term to inform physical activities to be undertaken to conserve or develop the river over time. Those that should receive immediate priority relate to presenting the key values of the river such as the habitats and landscape character which are at critical risk. Foremost of these is the stabilisation of the river banks and the associated investigations to inform the techniques to be used (i.e. boating use, bank condition and stability assessments etc). How these studies will be implemented is a matter of further consideration by the relevant authority. It is stressed that they should be structured to provide early advice to physical projects rather than wait for final results. This could be in the form of pilot studies or reach by reach consideration of the river. To give some idea of the priority of the strategic initiatives a timeframe has been included in the table.

The planning, conservation and development strategies contained within this document are directed towards achieving the vision for the river. The best way to characterise the physical manifestation of this vision is as a series of 'regional parks'. This approach is consistent with the regional park concept identified in the Swan and Canning Rivers Management Act. These various river landscapes are quite different and it is appropriate they be managed on a regional basis in response to their character, ecologies, historic and proposed patterns of use. To this end the following strategies would apply to a 'Middle Swan Regional River Park' extending from the Windan Bridge to Middle Swan Road along the Swan River and upstream to Roe Highway on the Helena River.

A common set of objectives, planning strategies and guidelines to ensure a coordinated approach is achieved across the various Local Government areas adjoining the rivers has been prepared. These build upon the guiding principles established in the SPP for the Swan-Canning River System for:

- Social Benefits;
- Environmental Values;
- Cultural and Natural Heritage;
- Design and Development;

An additional guiding principal under the heading of *Planning and Management* has been included relating to those actions required to implement the Management Framework. Each guiding principle has a number of strategies that will need to be considered as part of the implementation process. The strategies are a starting point for the stakeholders and not an exhaustive list of possibilities.

The strategies have been developed based on consideration of the issues and aspirations previously identified. Running through all of them are the common themes that make up the vision for the river characteristics that will be further developed in future actions.

The development and implementation of the strategies will require a partnership approach between the key stakeholder authorities that recognises both regional and local priorities. Although some activities may benefit through taking a regional approach, for example riverside dual use path or extensive foreshore erosion control/stabilisation strategies, it is acknowledged that some activities undertaken associated with the planning strategies and the precinct planning process (see Section 6) will need to respect the local character and community aspirations related to foreshore areas. In this context, the member Councils will be an integral source of local knowledge and continue to undertake the lead role in the local planning and provision of community facilities and environmental enhancement activities for their reserves.

To assist with putting these ideas into action, each strategy is ascribed to the most relevant agency or interested party to pursue under the title of Lead Authority. Lead Authorities are shown in bold text in the table and include the following agencies:

LEAD AUTHORITIES

SRT	Swan River Trust
EMRC	Eastern Metropolitan Region Council
WAPC/DPI	Western Australian Planning Commission / Department for Planning and Infrastructure
LGA	Local Government Authority

The Lead Authority is essentially the agency best positioned to take the primary responsibility for undertaking the relevant planning strategies, however this does not assume that it is also responsible for funding the strategy. In most cases, the planning strategies will need to be funded from a variety of sources, including Federal Government and State Government grants and Local Government contributions. In addition, some of the planning strategies may be suitable for funding through private sector sponsorship. This type of approach to funding may also be required for developing and implementing precinct plans (see Section 6), recognising that many of the activities in the precincts are being funded either directly by Local Government or through joint State Government and Local Government partnership arrangements.

Other authorities have also been identified that would perform a support role to the Lead Authority in the preparation of strategies. Other authorities include, but are not limited to, the following:

OTHER AUTHORITIES

DEC	Department of Environment and Conservation
DIA	Department of Indigenous Affairs
SCC	Swan Catchment Council
NT	National Trust of Australia (WA)
HCWA	Heritage Council of Western Australia
MRA	Midland Redevelopment Authority
DoW	Department of Water

“In amplification of these broad principles, the Plan proposes the extension of those foreshore areas already held for Public Open Space, sufficient to allow to the public continuous and unrestricted access along its banks from Point Roe to Guildford on the North side, and from Preston Point to Guildford on the South Side ” (Plan for the Metropolitan Region Perth and Fremantle, 1955)

5.2 SOCIAL BENEFITS

The Swan and Helena Rivers are public resources with significant social benefits and should be available to all members of the community. This principle has been recognised in many planning documents through the provision of, and stated intent to provide, a continuous regional parks and recreation reservation along the river foreshore. Public access to the river is therefore a desired outcome in a manner that is compatible with the river environment.

Social Benefits			
Guiding Objectives			
— Maintain the river and its setting as a community resource			
— Secure public access to the river			
— Maintain a sense of place			
— Provide opportunities for water transport			
No.	Strategies	Responsible Authority	Timeframe (yrs)
SB 1	Regional Recreation Trail Develop a coordinated standard for all forms of regional recreational trails throughout the study area. i.e. cycle paths, footpaths, heritage trails, boardwalks. The regional trail system should provide a continuous and accessible route along each side of the river and provide links to schools, major parks and recreation areas, and commercial centres within the river catchment. The strategy should include consideration of the location of support facilities (e.g. signs, toilets, lights, bubblers, seats, etc) at regular intervals along the route for user safety, amenity and comfort. <ul style="list-style-type: none">- Develop a design standard and preferred location criteria for dual use paths- Develop a design standard and preferred location criteria for footpaths- Develop a design standard and preferred location criteria for heritage trails- Develop a design standard and preferred location criteria for boardwalks- Identify the most appropriate route along each side of the river (short term and long term)	DPI / SRT / EMRC	1-2
SB 2	Regional Signage Develop a coordinated standard for all forms of signage throughout the study area. i.e. cycle network, heritage trails, environmental education and heritage interpretive signs, regional destinations. <ul style="list-style-type: none">- Develop a directional signage design standard for regional facilities (i.e. linkages from major roads, public transport, town centres)- Develop a signage design standard for cycle networks- Develop a signage design standard for heritage trails- Develop a signage design standard for interpretation / environmental education	DPI / SRT / EMRC	1-2
SB 3	Regional Activity Identify types of regional activity nodes along the foreshore, including commercial activities required as adjuncts to recreation uses, water-based uses, to encourage and facilitate multiple use of facilities (see Section 6 – precinct plans for suggested regional activity nodes).	DPI / SRT / EMRC	1-2
SB 4	Character Define the character of each precinct based on regional requirement to maintain the special riverine character, cultural and landscape qualities of the river systems. Guidelines that reflect the essential qualities of each precinct with respect to coordinated streetscapes, landscape character, and built form etc.	SRT / LGA / EMRC / SCC	1-5
SB 5	Transport Identify the potential for a commercial and recreational water transport network. <ul style="list-style-type: none">- Evaluate existing potential new facilities for river transport stops (i.e. jetties, pontoons)- Identify surrounding destination land uses (i.e. tourist destination, regional activity node, town centre)- Identify connections with other transport modes.- Investigate boat wash impact from increased water transport use.	DPI / SRT / LGA / EMRC	1-5
SB 6	Image and Quality Create a strategy that promotes the image of the river as a unifying recreational corridor in the public and administrative imagination.	SRT / EMRC / SCC / LGA	1-3



The cost of maintaining infrastructure along the foreshore is beyond the ability of the Local Government to fund. A regional approach to infrastructure maintenance is required to meet recreational use and safety needs.



Many jetties along the river are in need of maintenance to meet public access needs. Local Government requires funding assistance and State Government direction to address this issue.



Private jetty facilities provide access to tourist attractions upstream from the city.



The river foreshore contains wetland environments which are of regional significance. These unique environments provide education and interpretation opportunities.



Wetland/conservation areas within the foreshore provide natural diversity in the context of an urban setting.



The riverine character is evident in the eastern most reaches of the Swan River. However trees at the river's edge are in danger of falling over due to undercutting of the banks. Riverbank stabilisation is required to preserve this unique character.

5.3 ENVIRONMENTAL VALUES

The natural environment of the river system should be respected at all times and managed in a coordinated manner to ensure its conservation for future generations. The key natural heritage values of the river system need to be identified.

Environmental Values			
Guiding Objectives			
— Protect the natural environment — Protect fringing vegetation — Minimise dredging and channel disturbance — Implement responsible stormwater management practices — Respond to river function, topography and landscape			
No.	Strategies	Responsible Authority	Timeframe (yrs)
EV 1	River Bank Stabilisation Develop a coordinated standard for all forms of river bank stabilisation methods - hard and soft techniques. <ul style="list-style-type: none">- Undertake audit of river banks to establish extent and type of bank erosion- Identify bank stabilisation techniques to match each type of erosion- Identify bank stabilisation maintenance requirements and remediation works	SRT / LGA / EMRC	1-2
EV 2	Boating Use (this is linked to Planning Strategy SB5 in Section 5.2) Prepare controls and guidelines for boating use to minimise impact of boat wash on the stability of the river banks to manage river bank erosion. <ul style="list-style-type: none">- Identify appropriate boat hull and propeller design for craft to be used along the river- Identify appropriate boat speed and condition of use for various parts of the river- Identify areas for channel dredging to enable safe boating use- Identify appropriate times for boat use on river (eg mid - high tide only)	SRT / DPI (Marine and Harbours) / EMRC	1-5
EV 3	Regional Conservation and Habitat Restoration Identify regional conservation nodes for protection along the foreshore for areas of high habitat value. <ul style="list-style-type: none">- Undertake a botanical survey to identify corridors / areas to be rehabilitated to create sustainable habitats- Identify linkage opportunities between conservation nodes- Prepare an implementation plan based on conservation priority- Develop consistent protocols for rehabilitation- Develop a unified plan for weed control- Develop a consistent approach to exclude feral cats and foxes- Develop guidelines for equestrian exercise areas	SRT / DEC / EMRC / LGA / SCC	1-3
EV 4	Environmental Education and Interpretation Prepare signage guidelines for the communication of information that: <ul style="list-style-type: none">- Highlights environmental qualities of an area- provides for the integration of environmental qualities to educate the community of these values	SRT / EMRC / DEC / SCC/ LGA	1-5
EV 5	Floodway and Flood Fringe Develop a strategy to identify the potential for activity within the floodway and flood fringe <ul style="list-style-type: none">- Identify preferred and contemplated land uses/activities/facilities for within the floodway and flood fringe	SRT / DPI / DoW / EMRC	1-5

05 PLANNING STRATEGIES

Environmental Values			
No.	Strategies	Responsible Authority	Timeframe (yrs)
EV 6	Stormwater Management <ul style="list-style-type: none">- Create an over arching nutrient management plan for stormwater- Develop a consistent stormwater monitoring program and consistent contingency responses- Develop a regional approval for reducing pollution in stormwater	SRT / DoW / DPI / EMRC	1-5
EV7	Acid Sulphate Soils <ul style="list-style-type: none">- Investigate Acid Sulphate Soils (ASS) along the study area foreshore- Develop management strategies to mitigate the impact of ASS	SRT / DoW / DEC / EMRC	1-2



Coral trees impact on the water quality of Australian waterways due to their large and concentrated leaf fall and nutrient load. A vegetation management plan is required to control weed and exotic species along the eastern reaches of the river.



The river foreshore contains heritage buildings/sites that provide value and interest. The foreshore treatment needs to be developed to complement the experience.

5.4 CULTURAL AND NATURAL HERITAGE

The river is a significant cultural and heritage asset for the city and the State. The cultural and heritage values of the river should be protected and enhanced. Any development along the river should recognise and respect these values.

Cultural and Natural Heritage			
Objectives			
— Conserving the cultural and natural heritage of the river and its setting			
No.	Strategies	Responsible Authority	Timeframe (yrs)
CN 1	Cultural Heritage Identify and promote areas of cultural heritage along the foreshore. <ul style="list-style-type: none">- Undertake an audit of existing cultural heritage items- Engage in consultation with Aboriginal communities for all identified areas- Identify links between areas to create a cultural heritage trail- Identify information that can be used for interpretative signage/thematic designs/displays	EMRC / LGA / DIA / NT / HC	1-2
CN 2	Natural Heritage (this planing strategy could be combined with CN 1 above) Identify and promote areas of natural heritage along the foreshore. <ul style="list-style-type: none">- Undertake audit of existing natural heritage items- Engage in consultation with Aboriginal communities for all identified areas- Identify links between areas to create a natural heritage trial- Identify information that can be used for interpretative signage/thematic designs/displays	EMRC / SRT / LGA / DIA / SCC	1-2
CN 3	Program and Events (Tourism) Encourage and promote programs and events to occur along the river foreshore with a focus on the river. The strategy must provide measures to ensure the river environs are not damaged by such events. <ul style="list-style-type: none">- Outdoor theatre- River festival- Markets- Regular historic walks/tours- Bicycle races around the river- Rowing, orienteering, canoeing /model boat races- Multicultural activities- Annual clean up days- Other activities organised by local environmental groups	EMRC / SRT / LGA / NT / DIA / SCC	1-2

5.5 DESIGN AND DEVELOPMENT

The river foreshore has a variety of characteristics which reflect the various river environments. Development within the foreshore should ensure user safety and enhance the visual quality of the foreshore area and be located on sites that are compatible with the intended use.

Design and Development			
Guiding Objectives			
<div>— Promote sensitive design and built form to complement the river landscape</div> <div>— Encourage appropriate development</div> <div>— Create and maintain foreshore reserves</div> <div>— Create linkages and natural vegetation corridors</div>			
No.	Strategies	Responsible Authority	Timeframe (yrs)
DD 1	<div>Built Form Strategy</div> <div>Develop guidelines for built form (i.e. commercial and major community facilities) using information gathered in the Character Strategy and other surveys of the foreshore environment. Guidelines to include:</div> <div><div>- Building guidelines for floodway and flood fringe</div><div>- Building guidelines for building bulk and scale</div><div>- Building material guidelines based on character and landscape precinct strategies</div></div>	DPI / SRT / LGA / EMRC	1-2
DD 2	<div>Foreshore Facilities Strategy</div> <div>Identify standards for regional foreshore facilities to ensure continuity along the foreshore. This could be in the form of a park elements design manual to pursue a consistent palette of materials along the river.</div> <div><div>- Prepare seating design standards</div><div>- Prepare lighting design standards</div><div>- Prepare paving design standards</div><div>- Prepare site elements design standards</div><div>- Prepare building design standards for toilet blocks, pavilions and picnic shelters</div></div>	SRT / EMRC / DPI / LGA	1-5
DD 3	<div>River Bank Structure Guidelines</div> <div>Prepare design guidelines for the construction of jetties, pontoons, wharfs, boardwalks, lookout structures and boat launching ramps, to match specific riverine characteristics and meet required needs and locations as identified in the Transport Strategy SB 5.</div>	SRT / DPI / EMRC	1-5



Guidelines are required to control the placement and design of structures within the foreshore riverine edge.



Guidelines are required to control the placement and design of structures within the foreshore riverine edge.



Maintenance and upgrading of foreshore facilities are an ongoing issue for Local Government and State Government.



Supplementary planting among existing mature trees is required to ensure future generations are able to enjoy a riverine experience.

“There is too little foreshore reserve to make car parks out of it.”
(George Seddon)

5.6 PLANNING AND MANAGEMENT

In order to achieve the actions and strategies presented in the framework, a partnership approach is required between all key stakeholders under the leadership of the SRT. It is only through a co-ordinated approach that a managed outcome to the foreshore will be achieved.

Planning and Management			
Guiding Objectives			
— To extend and support the aims of the Eastern Metropolitan Regional Council in establishing an integrated management and planning framework that reflects a total river management approach involving all stakeholders.			
— To apply and lobby for funding from a range of public and private sector sources in a co-ordinated manner.			
— To establish responsibility for unresolved management areas and issues along the River.			
No.	Strategies	Responsible Authority	Timeframe (yrs)
PM 1	Swan and Helena Rivers Management Framework Seek to achieve a signed “Partnership Agreement” by all stakeholders concerned with the Swan and Helena Rivers within the study area to adopt the guiding principles and strategies in the framework.	EMRC / SRT / DPI / LGA	1-2
PM 2	Foreshore Funding Strategy Prepare a funding plan to obtain funds to undertake significant and co-ordinated works along the foreshore and river banks. The funding plan should include funding sources from: <ul style="list-style-type: none">- State Government Grants (including \$ for \$)- Council Revenue- Natural Heritage Trust- Lotteries Commission- Sponsorship- Fund Raising Events- Commonwealth funding opportunities, major corporations and industry etc.	EMRC / DPI / SRT / LGA / SCC	1-2
PM 3	Aboriginal Consultation Strategy Involve Aboriginal communities in the planning and management of the river foreshore. Review opportunities for representatives of the Aboriginal community to be represented as a stakeholder within the Partnership Agreement.	DPI / DIA / SRT / LGA	1-2
PM 4	Public Access Foreshore Strategy Secure continuous public access along the foreshore. The suitability of the following methods is dependent on the location, zoning, nature of the land and how important access to the land is to the overall network of foreshore open space. <ul style="list-style-type: none">- acquisition of privately owned land into public ownership with the parks and recreation reservation- dedication of required land into public ownership to create access- right of way over private foreshore land to allow public access	DPI / LGA / SRT	1-5
PM 5	Swan and Helena Rivers Working Group Establish a Working Group whose brief is specifically to focus upon implementing the strategies recommended in this framework. The group would have representation from all key stakeholders and to be led by the SRT.	SRT / DPI / LGA / OA / EMRC	1-2
PM 6	Middle Swan Regional River Park Prepare a regional river park plan extending from Windan Bridge to Middle Swan Road along the Swan River and upstream to Roe Highway on the Helena River. The plan should address regional conservation and management matters and contain a strategy implementation framework.	SRT / DPI / EMRC	1-5

06 PRECINCT PLANS

6.1 INTRODUCTION

This section of the document contains site specific measures proposed to be undertaken as part of the Swan and Helena Rivers Management Framework (i.e. the Middle Swan Regional River Park Plan). The study area is divided into four (4) precincts consistent with the existing Swan River Trust's Landscape Description precinct boundaries. These are:

- Precinct 1: Windan Bridge to Black Swan Island
- Precinct 2: Black Swan Island to Helena River confluence
- Precinct 3: Helena River confluence to Whiteman Bridge
- Precinct 4: Kings Meadow to Roe Highway

Precinct 1 (Windan Bridge to Black Swan Island) has been extended downstream to Windan Bridge in East Perth to coincide with this logical management edge, based on physical and visual characteristics of this section of the river. The extent of the precinct boundaries is limited to the Swan River Trust Management Area boundary.

A plan and associated table has been prepared for each of the four precincts identified in this study. Activity nodes, conservation nodes, key systems and activity precincts have been identified within each precinct. These elements are numbered and explained in the accompanying table under the headings of:

- “issues” relevant to the area;
- key “actions” and recommendations to address the issues;
- the “responsible authority” for implementing the actions;
- the relevant “strategic plans” to be referenced; and
- suggested “priority” timeframes for the implementation of actions.

The following is an explanation of the information contained on the plans prepared for each precinct.

ACTIVITY NODES

Key activity nodes have been identified based on a review of available documents and the consultant's assessment process. The nodes have been classified as local and district areas of activity based on the following criteria:

- *District Node*: small scale activities that service a district catchment. Qualities and attractions of the node are not considered to be unique in a regional context.
- *Regional Node*: larger scale activities that service or draw on a regional catchment. Qualities and attractions of the node are considered to be unique to the eastern reaches of the river in a regional context.

CONSERVATION NODES

Key conservation nodes have been indicated based on a review of available documents, such as Bush Forever, and the consultants' assessment process. Areas identified as Bush Forever sites are conservation areas considered to be of regional significance as defined in the WAPC Bush Forever study of 2000. It should be noted however, that not all Bush Forever sites have been identified as regional conservation nodes.

The nodes have been classified as local and regional areas of conservation based on the following criteria:

- *Local Node*: primarily small scale areas that have local environmental significance. Qualities of the environmental attributes are not considered to be individually unique in a regional context. However, a site's environmental quality may form part of regional Bush Forever site when considered in the broader regional context.
- *Regional Node*: larger scale areas that have regional environmental significance or quality. These nodes are nominated Bush Forever sites which have been identified in the WAPC study published in 2000. The study identified conservation areas of regional significance in the Perth metropolitan area of the Swan Coastal plain.

KEY SYSTEMS

Key systems are those items that are not bound by land management boundaries, are planning or natural movement systems and take a linear form along the river foreshore. These items generally require a 'systems' based approach to management and may include river banks and recreation trails (access). These items are generally the responsibility of the State government and are therefore considered to be of regional significance.

EXISTING RECREATION TRAIL

Existing recreation trail symbol on the precinct plan reflects the location of constructed dual use paths according to DPI data.

PROPOSED RECREATION TRAIL

The proposed recreation trail symbol on the precinct plan reflects the preferred alignment for a trail in order to provide continuous public access along the foreshore. The nature of the trail is to be determined via more detailed studies and may consist of dual use paths, boardwalks, heritage trails, etc.

RIVER BANK STABILISATION

The river bank stabilisation symbol represents areas along the river foreshore where bank erosion is an issue and bank stabilisation is required. The notation on the plan is not an accurate location of erosion or the extent to which erosion



Guidelines for private structures along the foreshore and riverbank are required to ensure the riverine setting is maintained.



Guidelines for private structures along the foreshore and riverbank are required to ensure the riverine setting is maintained.

is occurring, but rather an indication that river bank stabilisation is required in the general area and should be assessed in more detail.

FLOODWAY AND FLOOD FRINGE

The floodway and flood fringe areas have been identified using DPI data. These areas are important to recognise in order to determine future land use and activities.

ACTIVITY PRECINCTS

Activity precincts have been used to group a number of nodes occurring within a specific area or “precinct” along the river. Is it recommended that sub-precinct plans be prepared for these areas to provide coordination between facilities and provide consolidated areas of activity.

6.2 PRIORITIES

To determine the relative priority for action, consideration has been given to the following evaluation criteria.

- whether a site is widely used by a regional catchment and/or significantly adds to the variety of recreational opportunities;
- the need to protect or enhance sites which are of regional environmental or cultural significance;
- the priority to protect, enhance or facilitate access to/use of the river or sites adjacent to the river:
 - forming part of a network of existing or proposed riverside parkland which is of more than local significance; or
 - being of regional significance for some other reason (e.g. by virtue of visibility or visual quality);
 - by enhancing access and/or enjoyment of riverside parkland for groups with special needs; or
 - demonstrating innovative approaches to the management or use of regional parkland.
- relate to the development of open space areas which have been acquired under the Metropolitan Regional Scheme.
- can be exemplar projects which will demonstrate good practice in cornerstone areas such as bank stabilisation, interpretation, environmental education, habitat conservation and built form; and
- projects that satisfy the above criteria and are able to be actioned within the short term to build confidence and set an example of best practice;
- sites of regional significance that have undergone some development but require further work to realise their potential or address elements of poor practice and hence be exemplar projects to inform other works along the river.

How well an element satisfies the criteria determines the timeframe (i.e. priority) for implementation. Timeframes have been classified as follows.

- Low - A low priority task is to be completed within 5-10 years
- Medium - A medium priority task is to be completed within 3-5 years
- High - A high priority task is to be completed within 1-3 years

In addition to physical works which have been prioritised on the table, high priority needs to be given to the initiation and completion of proposed regional planning strategies identified in Section 5, which are largely the responsibility of State agencies.

6.3 PREPARATION OF PRECINCT PLANS

The preparation of precinct plans should primarily be undertaken by Local Government, in partnership with other agencies as required, and informed by a range of factors including relevant statutory requirements (planning, environmental, etc), policy documents, local characteristics of the area, needs of the area and the proposed regional planning strategies.

The following table provides a guide as to how the planning strategies can be used to inform the preparation of local precinct plans.

<i>Planning Strategies</i>	<i>Precinct Plans</i>
Establish a common set of regional objectives	Identifies regional and district areas of activity, conservation and systems
Inform physical activities	Identify areas of required physical activities
Provide guidance to achieve a coordinated approach to regional development and conservation	Consistency and coordination when implementing regional physical activities
Prepared ahead of implementing precinct plan actions	Where physical activity has already commenced or has been substantially planned, precinct plan activity may proceed ahead of planning strategies being prepared

The preparation of precinct and management plans for identified nodes will assist in establishing budgets, priorities and funding sources for recommended works.



Example of bank stabilisation work being undertaken within the region.



Another form of bank stabilisation used along the river. Various techniques have been used in response to specific location requirements. A coordinated suite of treatments and guidelines is required to improve performance.

06 PRECINCT PLANS

6.4 PRECINCT ONE: WINDAN BRIDGE TO BLACK SWAN ISLAND

Precinct One is located in Perth Water and is referred to as Precinct 8 in the SRT Landscape Description. For the purpose of this study the precinct commences at Windan Bridge, East Perth. It should be noted that the Belmont Peninsula and East Perth/Mt Lawley foreshores are outside of the study area boundary. However, as these areas are closely linked to Precinct One (and included within the proposed extended study boundary), these nodes have been included in the Precinct and are referred to as A, B, C and D.

This precinct is suburban in landscape character, with a range of housing styles and suburban land uses in the vicinity of the river foreshore. The Rivervale section of the foreshore has a series of residential apartments located on the dunes adjacent to the river and is experiencing increasing development pressure due to its close proximity to the Swan River and the Perth CBD. Similarly, the Maylands Peninsula has a mixture of low and high-density residential properties. Most of this peninsula is used for recreation and conservation purposes. Tranby House, on the Maylands Peninsula, is of historical significance to the area.

There are several parks within this precinct the most significant being Bardon Park and Clarkson Reserve. These areas provide valuable recreation amenity and contain toilet and picnic facilities.

Public access around the foreshore within this precinct is quite well catered for, however several sections of foreshore in the vicinity of the Maylands Peninsula Golf Course would benefit from pedestrian access. The precinct plan indicates where recreation trails should be extended to provided continuous foreshore access, subject to further study.

The precinct is well used for boat activities with a water skiing area located between the Maylands Golf Course and Balbuk Way, Rivervale. Discussions with Local Government officers, and review of literature, indicates that boating activity in this part of the river is having a significant impact on the river banks with major bank erosion being caused on the Rivervale foreshore. One Perth resident has made the following observation about the use of power boats in this stretch of the river:

“Around the southern end of the Maylands peninsula erosion of the river banks was more evident than ever. Three small she-oaks had fallen over, three disks of roots sticking upstudded with old broken bricks. The problem is inappropriately designed powerboats that drag half the river in sharp ridges behind them.”



In constrained foreshore areas, tree planting helps in screening and maintaining the riverine character.

KEY ISSUES

- As this precinct is the closest part of the study area to the CBD it is receiving the greatest development pressure. Controls and rehabilitation measures are required to ensure a riverine character is maintained as viewed from the waterway and adjacent visual catchment.
- Current use has degraded natural vegetation and has resulted in bank erosion and instability in several locations including Balbuk Way, Sandringham Hotel Precinct, Clarkson Reserve and an area between Tranby House and Bath Street Reserve in Maylands.
- Private land ownership creates a barrier to developing a continuous recreation trail network. This occurs on the Maylands Peninsula containing the golf course, and north of Bath Street Reserve.

06 PRECINCT PLANS

