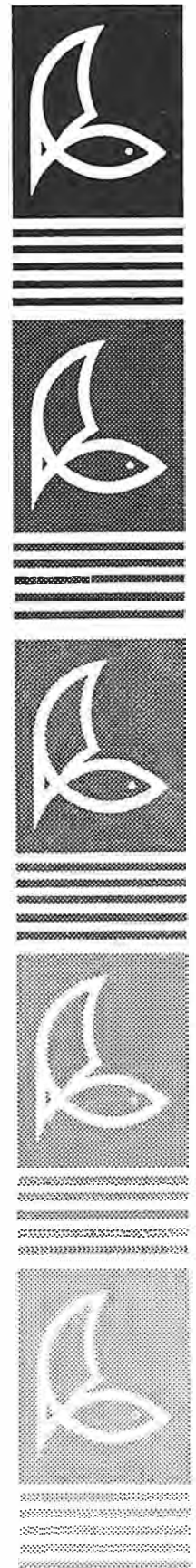


Leschenault Inlet
Management
Programme Review
1990

Summary of Submissions

Waterways Commission
Report No. 28
1992





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Abbreviations

BCC	Bunbury City Council
BFB	Bush Fires Board
BPA	Bunbury Port Authority
CALM	Department of Conservation and Land Management
DMH	Department of Marine and Harbours
DOA	Department of Agriculture
DOF	Department of Fisheries
DOLA	Department of Land Administration
DOM	Department of Mines
DPUD	Department of Planning and Urban Development
DSC	Dardanup Shire Council
EPA	Environmental Protection Authority
HCWA	Heritage Council of Western Australia (a new organisation which superceded the Western Australian Heritage Committee)
HD	Health Department of Western Australian
HSC	Harvey Shire Council
LGA	Local Government Authority(ies)
LICMG	Leschenault Integrated Catchment Management Group
LIMA	Leschenault Inlet Management Authority
MCAC	Mosquito Control Advisory Committee (superseded the Mosquito Control Review Committee)
NT	National Trust
SD	State Development (formerly the Department of Resources Development)
SECWA	State Energy Commission
SES	State Emergency Service
SRT	Swan River Trust
SWDA	South West Development Authority
WAFB	Western Australian Fire Brigade
WAM	Western Australian Museum
WATC	Western Australian Tourism Commission
WAWA	Water Authority of Western Australia
WWC	Waterways Commission



1.0 Background

The Leschenault Inlet Management Authority (LIMA) is responsible for the Leschenault Inlet Management Area declared under the Waterways Conservation Act 1976 (Amended). LIMA is required under Section 35 of the Waterways Conservation Act to prepare a management programme for the area under its control. It is also required to keep the management programme under review (Section 35 (5)).

The Leschenault Inlet Management Programme was gazetted in 1983. In September 1990 the Leschenault Inlet Management Programme Review was released for public comment. The closing date for submissions was December 31st 1990, however, submissions continued to be received until May 1991.

The call for public submissions was advertised in both State and local newspapers. Copies of the report were available free of charge from LIMA, the Waterways Commission and the libraries of the City of Bunbury, Shire of Dardanup and Shire of Harvey. Over 400 copies of the document were distributed.

In addition local government authorities, government agencies and public interest groups were forwarded copies and invited to prepare a submission. Appendix 1 is a list of organisations and individuals invited to comment.

This document summarises the submissions and indicates where amendments have been made to the Review document. Readers should obtain a copy of the Management Programme to see the final structure of the document and recommendation numbers.

2.0 Submission Analysis Methodology

Submissions were analysed by LIMA, consulting with relevant persons and agencies as necessary. The following criteria were used for amending the document.

- a) Change in Government policy or philosophy

Where the Government has announced changes or recent decisions concerning the management area these have been incorporated.

- b) Where additional information has been supplied

In a number of cases additional information has necessitated amendments to the 'Need for Action' or the recommendation.

- c) Where there is a lack of clarity in the report

Occasionally recommendations or the 'Need for Action' have been misinterpreted by the reader. Where necessary these have been amended to make LIMA's intention clear.

- d) Where comments relate to implementation of the recommendation

A number of comments related to how recommendations should be implemented, who should be consulted and the priority for implementation. This has been recorded to assist LIMA with overall implementation of the Management Programme.

Where possible comments were related to the appropriate chapter of the report and recommendations.

2.1 Number and Theme of Submissions

Thirteen submissions were received. None of these were 'pro forma' submissions.

The majority of submissions endorsed the Management Programme Review. Submissions most frequently related to the roles of local government and LIMA, ensuring that the waterways are adequately protected and taking a wholistic and integrated approach to management of the catchment and waterways. Comments indicated that the document was supported as it facilitates co-ordination between the various authorities and public interest groups.

Concern was expressed in one submission about the intrusion into matters controlled by other agencies. It was recommended that agreement should be reached between LIMA and other departments on the definition of areas of responsibility before final adoption of the programme. LIMA has met with the agency concerned to discuss this issue.

One submission commented that the report was not user friendly. Another commented that it was too long. LIMA has attempted to rectify this problem by producing a summary document of the programme.

Appendix 2 contains a list of persons and agencies making submissions.

A total of 43 recommendations were amended and the 'Need for Action' amended in 22 locations as a result of the submissions made. Seven new recommendations have been inserted into the document.



3.0 Amendments to Chapter 1: Introduction

The staff organisation and structure of the Waterways Commission and LIMA has changed and the document has been amended to reflect this.

The section on local government has been expanded to reflect the important role it plays in development and planning for land in the catchment.

The sections on the Western Australian Department of Agriculture and the Health Department of Western Australia have been amended to reflect their roles in the use and registration of pesticides.

Section 1.2.9 has been expanded to incorporate the need for liaison between local government authorities, as the primary agencies responsible for planning and development, and LIMA.

A new document on mosquito control in the Bunbury Region has been released for public comment. This has been discussed in the section on studies.

Section 1.2.8 has been amended to read 'mitigation' of floods rather than 'prevention' in accordance with submission comments. Also the 5 year plan for Flood Forecasting and Warning Service in WA has been discussed.

4.0 Amendments to Chapter 2: The Study Area

The section discussing Aboriginal use of the region has been expanded to reflect current knowledge on the subject.

The Leschenault Peninsula is not vested in CALM and the Collie River Gorge will not become a Conservation Park until such time as the Conservation and Land Management Act is amended. Changes have been made to correct these errors.

One submission commented that the scope of issues addressed in the Management Programme is much broader than just the management of the estuary and associated drainage system. Section 2.10 has been expanded to highlight the fact that management of the waterways is not just a water quality issue but also one of landscape, aesthetics and recreational experience. Often these aspects can be addressed by local government through their planning role. For this reason it is important that LIMA provide consistent advice to all local government authorities.

Another submission commented that a summary document of the issues facing the estuary would

be desirable. A summary brochure of the Management Programme has been produced and covers this aspect.

5.0 Amendments to Chapter 3: Management Aim and Objectives

The management aim and objectives were generally supported in the submissions and consequently have not been changed.

6.0 Amendments to Chapter 4: General Recommendations

6.1 Land Use and Waterway Planning

Regional and Local Planning

Recommendation 1 Not Amended
Ensure that the Leschenault Waterways Management Programme be complementary to the Bunbury Region Plan (*LIMA*, *DPUD*).

Recommendation 2 Not Amended
Identify required nodes and linear parks along the foreshores which could ultimately be incorporated into the Region Plan (*LIMA*, *DPUD*, *LGAs*).

Recommendation 3 Amended
Support *DPUD* in its desire to provide a statutory and financial framework for ongoing implementation of the Bunbury Region Plan (*DPUD*, *LIMA*, *LGAs*).

Submission Comments

The comment was made that this is a *DPUD* and *LGA* function. The recommendation has been amended to include *LGAs*. Another submission supported the recommendation stating that 'local government recognises and appreciates that *LIMA* has an interest in assisting the development of Regional Open Space to complement the waterways'.

Recommendation 4 Not Amended
Liaise with local government and *DPUD* to develop a Regional Open Space plan for the waterway. *LIMA* should use the Bunbury Region Plan as a means of identifying required recreation areas to accommodate future population growth (*DPUD*, *LGAs*, *LIMA*).

Submission Comments

The comment was made that this is a *DPUD* and *LGA* function. No amendment has been made as both agencies were included in the recommendation. Another submission commented that 'local government recognises and appreciates that *LIMA* has an interest in



assisting the development of Regional Open Space to complement the waterways’.

Recommendation 5 Not Amended
Develop a system to ensure that LIMA is consulted by DPUD on proposed amendments to the Bunbury Region Plan affecting the waterways (*LIMA, DPUD*).

Recommendation 6 Amended
Liaise with local government authorities to promote integration of environmental considerations within the various town planning schemes affecting the management area (*LIMA, LGAs*).

Submission Comments
The comment was made that this should be limited to LIMA boundaries. The recommendation has been changed to reflect this.

Recommendation 7 Amended
Provide comment when town planning schemes and rural strategies become available for review (*LIMA, LGAs*).

Submission Comments
The comment was made that this should also apply to rural strategies. The recommendation has been amended accordingly.

Recommendation 8 Amended
Encourage the incorporation of policies for foreshores or waterways into local authority town planning schemes, thus giving them a statutory basis (*LGAs, LIMA, DPUD*).

Submission Comments
The comment was made that the second sentence should be deleted. This had been done and the statement incorporated into the 'Need for Action'.

Recommendation 9 Not Amended
Implement the Waterways Commission Foreshore Management Policy (*LIMA*).

Submission Comments
At the time of release of the review document LGAs and LIMA were negotiating a policy for the vesting and funding of foreshore reserves. The comment was made in the submissions that the recommendation should not be included as negotiations were not complete. However the WWC policy is more general than the one between LGAs and LIMA and is not inconsistent with the policy being negotiated. For this reason the recommendation has not been changed.

Recommendation 10 Not Amended
Determine the need and priorities for establishment of foreshore reserves (*LIMA, DPUD, LGA*).

Recommendation 11 Not Amended
Ensure that the land taken as a condition of subdivision serves a useful function. Criteria for determining width and shape of foreshore reserves should include (*LIMA*):

- future land use
- conservation of natural ecosystems
- educational value
- recreation links including linear parks
- the flood plains
- heritage values
- landscape conservation
- management access
- public access
- local and regional significance
- erosion and accretion processes
- climatic change
- wildlife corridors
- fire management

Submission Comments
The comment was made that the criteria quoted are in most instances standard planning considerations and beyond the scope of LIMA. While it is accepted that some of these aspects fall within the responsibility of LGAs it is also necessary for LIMA to consider them in order to meet the aim and objectives of the Management Programme. It is not LIMA's objective to supersede the powers of local government but to work together to ensure that not only is the water quality of the estuary protected but also the flora and fauna and scenic and recreational qualities of the waterways. The comment was also made that LIMA should consult with local government on the designation of foreshore reserves suitable for conservation and be prepared to accept vesting of reserves. This comment relates to implementation of the recommendation and LIMA will take these comments into consideration when making recommendations. These comments are also consistent with the Waterways Commission Foreshore Management Policy.

Recommendation 12 Not Amended
Require that all proposed foreshore reserves are pegged and inspected before approval is given (*DPUD, LIMA*).

Submission Comments
The question was asked as to who would be responsible for financing and undertaking the survey. LIMA sees this as the responsibility of the proponent.



Recommendation 13 Not Amended
Examine alternatives to acquisition for land adjacent to the waterway within rural areas (*LIMA*, *DPUD*, *LGA*s).

Recommendation 14 Not Amended
Investigate the feasibility of entering into agreements with private landowners to ensure the right of public access, while protecting the rights of landowners, and achieving satisfactory public liability arrangements (*LIMA*, *DPUD*, *LGA*s).

Additional Comments Relating to Foreshore Reserves

The comment was made that the foreshore reserves programme is supported although the question of funding needs to be addressed. It is considered that Recommendation 3 adequately addresses this.

Commercial Development

Recommendation 15 Amended
Identify areas on the foreshore suitable for commercial developments based on the following social, environmental and physical planning criteria (*LIMA*, *DPUD*, *LGA*, *SWDA*):

- 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.

Submission Comments

The comment was made that this recommendation is beyond the scope of *LIMA*. Another submission made the comment that this is a planning issue and *LIMA* should restrict comments to those more appropriately affecting the waterways and their immediate environment.

LIMA considers that there are limited opportunities for commercial development on the foreshore of the waterways and for this

reason it is essential that such locations are identified in association with *LGA*s and other government agencies. This will not only ensure that the most is made of such areas but also that such developments are environmentally sound. The words 'on the foreshore' have been included to ensure that this only relates to commercial development proposals on the foreshore.

One submission commented that it is not appropriate to assume that there should be commercial development on the waterways. *LIMA* agrees with this sentiment and the 'Need for Action' has been amended to include this comment.

Recommendation 16 Amended
Refer major proposals which involve over-water structures, developmental dredging, filling of the waterway or those which abut or include System 6 recommendations, to the *EPA* for environmental impact assessment (*LIMA*, *EPA*).

Submission Comments

One submission stated that it is not necessary for everything to be referred to *EPA* and this should only apply to major proposals. The recommendation has been amended to reflect this.

Recommendation 17 Not Amended
Identify areas suitable for hire and house boat activities (*LIMA*, *LGA*, *DMH*, *EPA*).

Recommendation 18 Not Amended
Assess developments to ensure that they are set back from the waterway where appropriate to allow space for public amenity, and to protect features of natural, scientific, visual and cultural significance (*DPUD*, *LGA*, *LIMA*).

Recommendation 19 Not Amended
Ensure that advertising development proposals are assessed by the appropriate agency or agencies (*LGA*, *LIMA*).

Recommendation 20 Not Amended
Ensure that advertising associated with commercial developments is assessed as part of the approval process (*LIMA*, *LGA*, *DPUD*).

Climatic Change - the Greenhouse Effect

Recommendation 21 Amended
Support the Government's Policy Statement on "Greenhouse-Meeting the Challenge" (*LIMA*).

Submission Comments

The point was raised that this was beyond the scope of *LIMA*. Part of the recommendation has been deleted accordingly.



Recommendation 22 Not Amended
Ensure that the Water Authority advice on flooding takes into account the Greenhouse Effect (WAWA, LIMA).

Submission Comments

The comment was made that this study is complete. The Water Authority has completed flood studies for the area however these have not been updated to reflect current thinking on the Greenhouse Effect.

Recommendation 23 Not Amended
Ensure that the width and shape of foreshore reserves are based on topographical features and will be sufficient if water levels rise (LIMA, DPUD, LGA, WAWA).

Submission Comments

The comment was made that this is impractical. Another submission commented that the recommendation should be written in terms of what is known at the time. LIMA considers that if flood plans are modified as more definitive information becomes available this data will provide the basis for such decisions.

Recommendation 24 Not Amended
Ensure that facilities and structures are of suitable design or can be easily modified to accommodate rises in water level (LIMA).

Submission Comments

Again the comment was made that this is impractical. The same response as above applies.

Canal Developments

Recommendation 25 Not Amended
Ensure that proposals for canal developments which comply with "Recommendation's for the Development of Canal Estates", endorsed by Cabinet, undergo adequate environmental assessment (LIMA).

Recommendation 26 Amended
Advise developers that LIMA considers that there are limited opportunities for appropriate canal developments and such developments are unlikely to be approved unless they conform rigidly with LIMA's Policy (LIMA, DPUD).

Submission Comments

The comment was made that there is very limited opportunity for appropriate development of canals and the Management Programme should state this. This is clearly stated in LIMA's policy on Urban Development in Appendix 1 of the document however it is not reflected in the recommendations. The recommendation and 'Need for Action' have been changed to reflect LIMA's policy.

Another submission commented that a management plan should be prepared and funded by the developer. This is addressed in LIMA's policy.

Additional Comments Relating to Canal Developments

The comment was made that if canals were permitted on the estuary the unique features would be lost. It is considered that this is adequately covered by Recommendations 25 and 26.

Water Resources

Recommendation 27 Not Amended
Ensure that proposals to upgrade or build dams, weirs or other constructions partially or totally obstructing a water course are referred to the EPA for environmental assessment. Proposals should be reviewed from a local and regional perspective. The assessment should also determine requirements for maintenance of instream flora and fauna (EPA, LIMA).

Recommendation 28 Not Amended
Support the Water Authority in efforts to rehabilitate water catchments and reduce salinity levels (WAWA, LIMA).

Transport Network and Utility Services

Recommendation 29 Amended
Ensure that major road developments within the management area undergo adequate environmental assessment (DPUD, LGA, LIMA, EPA).

Submission Comments

One submission commented that this should only apply where they impact on the catchment area. The recommendation has been amended to apply only within the management area.

Recommendation 30 Not Amended
Review proposals for minor roads taking account of their proximity to the estuary, the nature of the area, type of construction methods, impact on the hydrology of the foreshore area, stormwater discharge from the roadway, use and maintenance of catchtraps and the possibility of accidental spillage (LGA, DPUD, LIMA).

Recommendation 31 Not Amended
Review the feasibility of incorporating recreational facilities into bridge design when issuing licences for bridge construction (MRD, LIMA).

Recommendation 32 Not Amended
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, SECWA, MRD, WESTRAIL, WAWA, LIMA*).

Industry

Recommendation 33 Not Amended
Extend the Leschenault Inlet Management Area to include that part of the Ferguson River abutting proposed industrial areas (*EPA, LIMA*).

Recommendation 34 Not Amended
Establish an administrative procedure between *LIMA, WAWA, and EPA* to deal with licensing of industrial discharges, sampling of discharge, monitoring of conditions and review of licences (See Section 4.2.2.9) (*LIMA, EPA, WAWA*).

Recommendation 35 Amended
Ensure that major industries proposed in the management area that are likely to have an impact on the waterways undergo adequate environmental assessment (*LIMA, EPA*).

Submission Comments

The comment was made that the task is already performed by the *EPA*. The recommendation has been amended to only address industries that are likely to have an impact on the waterways.

Additional Comments Relating to Industry

The comment was made that there is little reason to accept new industrial discharge into the waterways and a major objective should be the elimination of any present discharges. The 'Need for Action' has been amended to reflect this comment.

Flooding and Flood Plain Management

Recommendation 36 Amended
Liaise with *WAWA* and local government on developments within the flood plain (*LIMA, WAWA, LGAs*).

Submission Comments

It was requested that local government be consulted on this aspect. The recommendation has been amended to include this.

Recommendation 37 Not Amended
Identify key areas where filling of the flood plain may result in loss of important flora and fauna ensuring that planning authorities are aware of the significance of these areas when assessing development proposals (*LIMA*).

Submission Comments

One submission commented that this function is already performed by the *EPA*. This is in part performed by the *EPA* for major developments however it is also the responsibility of *LIMA*.

Recommendation 38 Amended
Encourage the Water Authority to prepare and update 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, LIMA*).

Submission Comment

One submission commented that the study is already completed. This is correct however it is essential that these data are updated regularly. The recommendation has been amended to include updating of the plans.

Recommendation 39 Not Amended
Support an investigation of 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, LIMA*).

Submission Comments

One submission commented that this had already occurred. It is acknowledged that this process is in place however it is considered desirable that the recommendation remain until it is fully implemented and *LIMA* has had the opportunity to comment on the proposed legislation.

Urban Development

Recommendation 40 Not Amended
Ensure that any residential development in newly developed or undeveloped river locations has regard for (*LGA, LIMA, DPUD*):

- the nature of the foreshore, 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 areas; and
- the degree of protection afforded to the foreshore, particularly in conservation areas.

Submission Comments

It was suggested in one submission that the predominant characteristics of adjoining residential areas are beyond the scope of *LIMA*. *LIMA* acknowledges that this is also a planning role of *LGAs* but believes they are essential criteria that must be considered when assessing development applications for areas abutting the waterways. These criteria will be used by *LIMA* in making recommendations to *DPUD* and *LGAs* on development applications.



Recommendation 41 Not Amended
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.) (*LIMA, LGA, DPUD*).

Submission Comments

Again one submission commented that this recommendation is beyond the scope of *LIMA*. Another submission supported the recommendation stating that often the EPA ask that *LIMA* act as their agent. The same comment as above applies, with particular emphasis on protecting the landscape and aesthetics of the waterways.

6.2 Conservation and Environmental Protection

Conservation Areas

Recommendation 42 Amended
Evaluate fringing wetlands for establishment and vesting as reserves for the conservation of flora and fauna or the protection of the environment. The evaluation should include detailed assessment of the flora and fauna, permitted uses, definition of boundaries and adjacent land uses (*LIMA, CALM, DOLA, LGAs*).

Submission Comments

The comment was made that *LGAs* should be involved with this. The recommendation has been amended to include this.

Recommendation 43 Amended
Reserve the following areas for the conservation of flora and fauna and protection of the environment (*DOLA, LIMA, CALM, LGAs*):

- The northern estuary above Waterloo Head.
- Vittoria Bay (Turkey Point to Pelican Point including the Preston River mouth).
- The Leschenault Inlet affected by System 6 Recommendation C68.

Amend the Land Act 1933 to allow for the reservation of land below low water mark for the conservation of flora and fauna and protection of the environment and identify the appropriate management agencies for vesting.

Submission Comments

One submission supported extending the Land Act to enable creation of reserves below low water mark and its use for protection of the northern estuary. Support was also given for a classification of 'conservation reserves' other than *CALM* reserves. Another submission made the comment that some of the land is currently vested or owned by Council. The

recommendation has been amended to include *LGAs* in the assessment. Support was also given for the area above Waterloo Head (Belvedere).

One submission commented on the importance of breeding areas for the white egret. These areas have been discussed in the 'Need for Action'.

Recommendation 44 Not Amended
Prepare and release for public comment management plans for all areas reserved for the purpose of conservation of flora and fauna and protection of the environment, giving particular consideration to the following aspects where appropriate (*CALM, LGA, LIMA*):

- Commercial and amateur fishing and crabbing.
- Boating activities.
- Other recreational activities adjacent to and in various parts of the reserve.

Recommendation 45 Amended
Develop management agreements with private landowners for the protection of wetlands and fringing vegetation on private property (*LIMA, LGAs*).

Submission Comments

The comment was made that *LGAs* should be consulted in the preparation of such agreements. This is considered desirable and the recommendation has been amended to include *LGAs*.

Recommendation 46 Amended
Ensure that developments and activities on the foreshore involve the maintenance and restoration of native vegetation and natural landforms (*LIMA, DPUD, LGA*).

Submission Comments

It was recommended that this statement be rephrased to indicate a positive intention. This has been done.

Additional Comments Relating to Conservation Areas

One submission indicated there is a case for the establishment of foreshore reserves for the purpose of conservation, preservation of the waterway environment, vegetation protection, species diversity and sanctuary areas for fauna. Areas include Collie and Brunswick Rivers, the northern estuary, Anglesea Island and abutting mangrove area and Alexander and Snake Islands on the Collie River. Section 4.1.2 Foreshore Reserves has been amended to emphasise this aspect and cross reference to Section 4.2.1 Conservation Areas and Area Recommendations. Recommendation 42 has also been changed to include the creation of reserves as well as vesting.



Submission Comments

One submission commented that a separate survey is required. Comparison between the Swan River and Leschenault Inlet and number of buildings in the Central Business District of each area will provide a basis upon which to determine if a separate study is required. If no problem is found to exist in the Swan then it is unlikely a problem will exist in Leschenault Inlet.

Stormwater Disposal

Recommendation 55 Not Amended
Develop a co-ordinated policy on stormwater disposal within the management area and encourage local government to reduce stormwater outlets in accordance with this policy.

Recommendation 56 Not Amended
Ensure that urban development proposals minimise nutrient and stormwater input to the waterways (*LIMA, LGA, DPUD*).

Recommendation 57 Not Amended
Encourage landowners and local authorities to minimise fertiliser use on gardens and parklands (*LIMA*).

Submission Comments

One submission commented that the recommendation failed to recognise the nutrient input from agriculture. This is acknowledged and Recommendation 49 has been amended to incorporate this aspect.

Pesticides

Recommendation 58 Not Amended
Endorse the recommendation that a survey of pesticide levels in the Preston River be undertaken in 1992 to assess the success of deregistration of organochlorine pesticides for agricultural use in July 1987 (*LIMA*).

Recommendation 59 Not Amended
Monitor changing land use practices in the catchment for possible increased or decreased sources of pesticides (*LIMA, DOA*).

Recommendation 60 Not Amended
Liaise with the Department of Agriculture on recommended uses of pesticides in agriculture and horticulture (*LIMA, DOA*).

Emergency Procedures

Recommendation 61 Amended
Endorse the contingency plan for combating pollution of the waterways. Plans to be updated and modified as required (*LIMA, DMH, LGA, BPA, SES, WAFB, BP OIL, EPA*).

Submission Comments

It was recommended in one submission that additional agencies of BPA, SES, WAFB, BP Oil, and EPA be included. This has occurred.

Recommendation 62 Amended
Ensure that management agencies have adequate equipment to control chemical and oil spills in the waterway and that staff are adequately trained (*LIMA, DMH, BPA, SES, WAFB, BP OIL, EPA, LGA*).

Submission Comments

It was recommended in one submission that additional agencies of BPA, SES, WAFB, BP Oil, and EPA be included. This has occurred.

Recommendation 63 Not Amended
Assess development proposals to ensure that potential problems from accidental spillage are minimised (*LIMA, DPUD, LGA*).

Submission Comments

One submission suggested that BPA, SES, WAFB, BP Oil and EPA be included in the list of action agencies. It is considered however as this recommendation related to development applications it is not necessary.

Sewage Disposal

Recommendation 64 Not Amended
Encourage the Water Authority to provide in-fill sewerage to unsewered areas likely to be contributing to nutrient loading to the estuary (*WAWA, LIMA*).

Recommendation 65 Amended
Ensure that all new subdivisions smaller than 1 hectare are seweraged or incorporate technologies to reduce nutrient leachate entering the groundwater. The latter should only be endorsed when seweraging is not economically feasible (*WAWA, LIMA, DPUD*).

Submission Comments

It was commented that seweraging of all subdivisions up to 1 hectare is impractical. While this is *LIMA*'s desire it is acknowledged that current costs make it prohibitive. The recommendation has therefore been changed to permit the use of technologies designed to reduce nutrient leachate entering the groundwater. This should not be in place of seweraging where this is economically possible.

Recommendation 66 Amended
Assess proposals for new sewage treatment plants and monitor existing sewage treatment plants in the catchment area to minimise leaching to waterways (*EPA, LIMA, WAWA*).

Submission Comments

The recommendation has been amended to address the issue of existing sewage treatment plants as outlined in one submission.



Recommendation 67 Amended
Review the impact of hobby farm subdivisions as part of the catchment management programme proposed in Recommendation 50 and the review of local government rural strategies (Recommendation 7) (LIMA).

Submission Comments

The comment was made that this issue should be covered as part of the review of local government rural strategies. The recommendation has been amended to cover this.

Industrial Discharge

Recommendation 68 Amended
Develop an administrative arrangement between EPA, WAWA and LIMA regarding the issuing of industrial licences and monitoring of conditions. The arrangement should address (LIMA, WAWA, EPA, LGAs):

- review of existing licences;
- policy on new licences;
- monitoring of conditions and referral of data and;
- issuing of Pollution Abatement Notices and Pollution Abatement Directions.

Submission Comments

It was requested that LGAs be involved with implementation of this recommendation and it has been amended accordingly.

Another submission commented that there is little reason to accept new industrial discharge into the waterways. This will be addressed when the recommendation is implemented.

Underground Storage Tanks

Recommendation 69 Not Amended
Liaise with the EPA and Department of Mines on the development of an Environmental Protection Policy addressing the issue of underground storage facilities (EPA, LIMA, DOM).

Recommendation 70 Not Amended
Monitor areas where leakage from underground storage facilities is possible (LIMA).

Additional Comments Relating to Water Quality

One submission commented that proposals for sewage disposal should also require an examination of alternative methods of disposal. It is considered that this issue should be addressed by the EPA as part of its decision making process. LIMA will provide advice to EPA on such applications. The 'Need for Action' has been amended to address this issue.

One submission commented that a user pays policy for waste disposal should exist and costs should also discourage people from discharging to the waterways. Waste disposal is currently based on a user pays system under the EP Act.

Erosion Control

Recommendation 71 Not Amended
Develop a long term tree planting programme integrating with management plans for foreshore areas (LIMA, LGA).

Recommendation 72 Amended
Identify and monitor areas of the river at risk from erosion and implement a long term erosion control programme. Control measures should include (LIMA):

- Foreshore stabilisation with native vegetation, particularly species endemic to the area.
- Tree planting adjacent to the waterway.
- Encouragement to provide access at nodes and discouragement of access to erosion prone areas.
- Beach renourishment, walling, groynes, flow redirection, use of baffle boards to dissipate wave action.
- Modification to recreational activities in very serious erosion areas.

Submission Comments

The comment was made that there is no provision for the making of by-laws for the prevention of erosion by cattle correctly on private lands. This is acknowledged and a separate recommendation has been included to address this problem stating 'Encourage landowners to fence foreshore areas to restrict stock access and damage to foreshore bed and banks. Provision should still be made for stock access to the waterway for stock watering'.

One submission commented that priority should be given to use of endemic species for erosion control. The recommendation and 'Need for Action' have been amended to reflect this.

The comment was made that stock should be restricted from access to the waterway. While this is desirable it is impossible because of land ownership and rights to water under the Rights in Water Irrigation Act 1914. LIMA is working to control stock access and reduce erosion problems through a variety of recommendations listed in the programme. These are considered adequate at this stage.

Recommendation 73 Not Amended
Provide information to private landowners to encourage appropriate methods of erosion control (LIMA).



Dredging

Recommendation 74 Not Amended
Modify the Dredging Guidelines prepared by the EPA for the Swan River so they address the issue of dredging of waterways on a Statewide basis. Implement the guidelines as an Environmental Protection Policy under the Environmental Protection Act 1986 (EPA, LIMA, SRT).

Submission Comments
The comment was made that Statewide guidelines will not address local problems. The purpose of the guidelines is to provide broad criteria against which dredging proposals will be addressed. The recommendation has therefore not been changed.

Recommendation 75 Not Amended
Use the LIMA policy on dredging in the interim until the EPA policy has been developed (LIMA).

Mosquitoes

Recommendation 76 Amended
Support the Mosquito Control Advisory Committee in its effort to develop a regional mosquito strategy which improves control methods and reduces environmental impact. This should include a review of mosquito control methods used Australia-wide and overseas (MCAC, LIMA).

Submission Comments
The agency responsible for implementation of mosquito control strategies is now the Mosquito Control Advisory Committee. All recommendations and discussions on the issue has been amended to reflect this.

Recommendation 77 Amended
Develop a policy detailing State and local government responsibilities for mosquito control (MCAC, LIMA).

Submission Comments
The comment was made that this is beyond the scope of LIMA. Mosquito control can have an undesirable impact on the natural functioning the estuarine environment. It is therefore essential that LIMA be involved with this issue.

Additional Comments Relating to Mosquitoes

One submission commented that development should not occur in close proximity to mosquito breeding areas. A recommendation has been inserted stating 'Provide advice to LGAs and DPUD on rezoning and development applications ensuring that such proposals are not in close proximity to mosquito breeding areas'.

Landscape Protection

Recommendation 78 Not Amended
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 to purchase land (LIMA, DPUD, LGA, DOLA).

Submission Comments
The comment was made that this is beyond the scope of LIMA. Under Section 24 (4) (a) of the Act it states that the Commission and LIMA shall have regard for the natural beauty and amenity of the area. It is recognised that local government have a key role to play in this issue and for this reason LGAs have been included as an action agency. The 'Need for Action' has been amended to reflect this section of the Act.

Recommendation 79 Not Amended
Encourage local government authorities to protect high valued landscapes through town planning schemes, particularly in rural areas where much of the foreshore remains in private ownership (LGA, LIMA).

Submission Comments
As for Recommendation 78.

Recommendation 80 Not Amended
Prepare an overall landscape plan in consultation with local government and the SWDA for incorporation into the proposed South West Landscape Restoration Masterplan. Encourage individual landowners to participate in the scheme (LIMA, LGA, SWDA).

Submission Comments
As for Recommendation 78.

Recommendation 81 Not Amended
Develop site design criteria and development guidelines for recreation nodes (LIMA, LGA).

Submission Comments
As for Recommendation 78.

Recommendation 82 Not Amended
Ensure landscape proposals within the floodway comply with WAWA's guidelines (LIMA, WAWA).

Scientific Research and Education

Recommendation 83 Not Amended
Establish a sub-committee of LIMA to oversee approval and co-ordination of research programmes undertaken on the waterways (LIMA).

Submission Comments
The comment was made that this is beyond the scope of LIMA. Section 25 (2) (g) of the Act states that LIMA should conduct and promote



relevant research. The 'Need for Action' has been amended to reflect this part of the Act.

Recommendation 84 Not Amended
Establish research programmes in consultation with the Waterways Commission to meet the management requirements of LIMA (*LIMA*, *WWC*).

Submission Comments
As above.

Recommendation 85 Not Amended
Identify areas for scientific research (*LIMA*).

Submission Comments
As for Recommendation 83.

Fire Management

Recommendation 86 Not Amended
Prohibit lighting of fires on the foreshore except in properly constructed fire places in accordance with Section 25 (1a) (1b) and (1c) of the Bush Fires Act (*LGA*, *LIMA*).

Submission Comments
The comment was made that the legislation already exists. It is the intention of the recommendation to ensure that the public is aware of the legislation and the reason for the fire ban. The 'Need for Action' has been amended to reflect this.

Recommendation 87 Not Amended
Develop a public education programme informing people about the danger of fire in the area, and the responsibilities of people in relation to the lighting of fires (*LIMA*).

Recommendation 88 Not Amended
Develop roads, tracks, carparks and dual-use paths as fire breaks and determine the appropriate location of fire breaks when locating such facilities (*LIMA*, *LGA*).

Recommendation 89 Not Amended
Encourage Councils to develop their fire fighting capacity by obtaining and upgrading equipment (*LIMA*, *LGA*).

Recommendation 90 Not Amended
Develop a fire management plan for the Leschenault Estuary, Inlet and tributaries in co-operation with the Bush Fires Board, local government and landowners. This should address the issue of controlled burns and loss of landscape quality (*LIMA*, *LGA*, *BFB*).

Heritage and Cultural Sites

Recommendation 91 Amended
Consult with the Department of Aboriginal Sites, WA Museum and other community groups individuals, on management and development plans to ensure Aboriginal sites are not inadvertently disturbed (*LIMA*, *WAM*).

Submission Comments

One submission commented that other sources should be consulted on this issue. The recommendation has been amended to reflect this.

Recommendation 92 Not Amended
Incorporate historic sites into management plans to provide a recreation and tourism attraction (*LIMA*, *WAM*, *HCWA*, *NT*).

Additional Comments Relating to Heritage and Cultural Sites

It is noted that since the release of the document legislation relating to heritage areas has changed. The 'Need for Action' has been amended to reflect these changes.

6.3 Recreation and Tourism

Recreation

Recommendation 93 Not Amended
Monitor trends in recreational use and participation through survey, observation and public consultation to determine requirements for future recreation facilities and opportunities, and environmental and user conflict (*LIMA*).

Submission Comments
One submission commented that the recommendation is too loose and specific management objectives are required for recreational ventures. This is considered unnecessary until specific recreation ventures are proposed.

Recommendation 94 Not Amended
Liaise with managers of other recreational areas regarding proposed developments, undertaking joint management and development plans where appropriate (*LIMA*, *LGA*, *CALM*).

Submission Comments
As Above.

Recommendation 95 Not Amended
Develop management plans for recreation nodes in consultation with local government and other affected parties. Incorporate a works development programme into the plan outlining implementation and funding of facilities on a five year basis (*LIMA*, *LGA*).

Submission Comments
As for Recommendation 93.

Recommendation 96 Not Amended
Encourage activities compatible with the protection and conservation of the Leschenault waterways (*LIMA*).

Submission Comments
As for Recommendation 93.



Recommendation 97 Not Amended
Encourage developers in accordance with the 'Foreshore Management Policy' to contribute towards the cost of development and maintenance of adjacent foreshore areas (*LIMA*).

Submission Comments
As for Recommendation 93.

Recommendation 98 Not Amended
Assess subdivision developments to ensure that adequate public open space is provided as well as foreshore reserves (*DPUD, LIMA, LGA*).

Submission Comments
As for Recommendation 93.

Tourism

Recommendation 99 Not Amended
Encourage tourist promoters and marketers to include information on 'How to Care for Our Waterways' as part of promotional brochures (*LIMA, WATC*).

Recommendation 100 Not Amended
Develop a close working relationship with the WA Tourism Commission and South West Development Authority to ensure that possible environmental and use conflict problems associated with tourist developments are addressed during the early stages of a project (*LIMA, WATC, SWDA*).

Recommendation 101 Not Amended
Identify areas suitable for tourist development and develop environmental guidelines for such developments addressing issues of scale, height, density, pollution etc. (*LIMA, DPUD, SWDA, LGA*).

Submission Comments
One submission commented that this issue is beyond the scope of *LIMA*. *LIMA* considers that there are limited opportunities for tourism development on the foreshore of the waterways and for this reason it is essential that such locations are identified in association with *LGAs* and other government agencies. This will ensure that the most is made of such areas but also ensure that such developments are environmentally sound.

Recommendation 102 Not Amended
Ensure that tourist developers and operators contribute to on-going management of the waterways and foreshores and that maintenance will not become a financial burden to government or local government bodies (*LIMA, Proponent*).

Submission Comments
The comment was made that this is impractical. *LIMA* considers that it is possible to impose this as a condition of development through either the planning process or the *EPA* process.

Boating Activities and Facilities

Recommendation 103 Not Amended
Encourage the development of ocean boating facilities and maintenance of existing boating areas outside the estuary (*DMH, LIMA*).

Submission Comments
One submission commented that this is beyond the scope of *LIMA*. It is considered that provision of adequate facilities on the ocean can reduce the demand for facilities in the estuary where considerable environmental modification may be necessary.

Another submission commented that every effort should be made to achieve this recommendation so that the estuary is protected.

Recommendation 104 Not Amended
Ensure that public access along the foreshore of marinas/boat haven facilities is provided and that the public is not discouraged from using that access (*DPUD, LGA, LIMA*).

Recommendation 105 Not Amended
Restrict new boat ramps and navigation channels in upstream areas of the Collie River and the northern estuary where boating opportunities are limited (*DMH, LIMA*).

Recommendation 106 Amended
Ensure that marina, jetty, boat ramp and boat haven facilities are only located in areas that (*EPA, LIMA, LGAs*):

- Require only minor site modifications so that maintenance works that may generate compounding environmental problems are not required.
- Do not impinge on sensitive environmental areas.
- Do not impinge on other legitimate competing uses.

Refer significant developments to *EPA* for environmental assessment where necessary.

Submission Comments
The comment was made that this is a planning issue. The recommendation has been amended to include *LGAs* as an action agency.

Recommendation 107 Not Amended
Ensure that boating facilities are designed to blend in with the surrounding environment (*DMH, LIMA, LGA*).

Submission Comments
Again the comment was made that this is a planning issue. *LIMA* considers that it also falls within its responsibilities as outlined in Section 24 (4) (a) of the Act.

Recommendation 108 Not Amended
Liaise with *DMH* on issues of boating education (*DMH, LIMA*).



Submission Comments

The comment was made that this is beyond the scope of LIMA. Experience has revealed that many of the complaints that LIMA receives relate to boating use and subsequent impact on the natural environment. For this reason the recommendation has been included.

Recommendation 109 Not Amended
Monitor rowing use on the Inlet once the Wellington Dam facility is operational (*LIMA*).

Recommendation 110 Not Amended
Promote the northern estuary as a 'no boating' area monitoring the success of the programme (*LIMA*, *DMH*).

Recommendation 111 Not Amended
Ensure that provision and condition of boat ramps, navigation channels and carparking are addressed in management plans for recreation areas. Examine the desirability of temporary parking areas during peak periods and jetties to ensure efficient use of ramps (*LIMA*, *LGA*, *DMH*).

Recommendation 112 Not Amended
Liaise with SWDA and CALM on the redevelopment of the Collie Gorge area to ensure provision of suitable canoeing and raft launching areas (*CALM*, *SWDA*, *LIMA*).

Recommendation 113 Not Amended
Request *DMH* to regulate the use of jetskis and any fast powerboats on the waterways particularly in relation to noise, speeding, erosion and disturbance of the river bed and conflict with other users (*DMH*, *LIMA*).

Recommendation 114 Not Amended
Monitor windsurfing use on the waterways with the view to providing a separate launch site for these craft to avoid conflict with other users and protect foreshore vegetation (*LIMA*).

Public Access

Recommendation 115 Not Amended
Liaise with *DPUD* on the feasibility of developing agreements with private landowners to ensure the right of public access, while protecting the rights of landowners, and achieving satisfactory public liability arrangements (See Recommendation 14) (*DPUD*, *LIMA*).

Recommendation 116 Not Amended
Restrict public access in environmentally sensitive wetlands and other conservation areas according to management plans developed for these areas (*LIMA*, *CALM*, *LGA*).

Submission Comments

It was suggested in one submission that the term 'environmentally sensitive wetlands' needs to be defined in relation to individual areas. This will occur as part of the management planning process.

Recommendation 117 Not Amended
Liaise with local government and Bikewest regarding the development of dual-use paths around the waterways (*LIMA*, *LGA*, *Bikewest*).

Recommendation 118 Amended
Design dual-use paths on the foreshore in accordance with the "Environmental Guidelines for Dual-Use Paths" ensuring they (*LGA*, *Bikewest*, *LIMA*):

- Are set back from the water's edge where possible.
- Avoid environmentally sensitive areas.
- 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.

Submission Comments

It was suggested that this issue is beyond the scope of LIMA. Many of these dual-use paths are located adjacent to the foreshore. It is therefore important that they are located so that the interest of other recreationists is considered and no environmental problems occur. The recommendation has been amended so that it is clear LIMA is only interested in facilities in close proximity to the waterways and foreshores.

Recommendation 119 Not Amended
Ensure that the boundary between private property and the foreshore reserve is clearly defined. Development of private property should not intrude onto the foreshore reserve, or discourage public access or use (*LIMA*, *LGA*, *DPUD*).

Recommendation 120 Not Amended
Promote the development of Heritage Trails in scenic and historic areas, so as to develop an awareness of the natural and cultural heritage of the waterways, and improve access to them (*HCWA*, *LIMA*).

Submission Comments

The comment was made that these sites will require identification. LIMA considers that this will occur as part of Recommendation 91.



Recommendation 121 Not Amended
Design foreshore areas and facilities to provide access for the disabled (*LIMA*, LGA, DPUD).

Recommendation 122 Not Amended
Monitor problems of public access to the foreshore and develop, in association with local government, strategies to manage problems (*LIMA*, LGA, DPUD).

Additional Comments Relating to Public Access

One submission commented that it is essential that public access to the foreshore is maintained and that commercial and residential developments do not restrict access for fishing. It was also requested that access should be improved where land is currently in private ownership. It is considered that the recommendations in the programme adequately address these issues.

6.4 Navigation and Boating Safety

Boating Control

Recommendation 123 Not Amended
Liaise with DMH on the gazettal of special use areas having regard for (*DMH*, *LIMA*):

- Boating safety.
- Recreational use.
- Impact on the foreshore including vegetation bank stability.
- Compatibility with the overall plan for the area.

Recommendation 124 Not Amended
Monitor boating use of the northern estuary and liaise with DMH on closure of these waters to boating if necessary to protect the environment (See Recommendation 43) (*LIMA*, *DMH*).

Recommendation 125 Not Amended
Liaise with DMH regarding navigation and boating control measures and encourage environmental information to be incorporated into DMH boating guides (*LIMA*, *DMH*).

Recommendation 126 Not Amended
Incorporate boating regulation information into *LIMA* public information brochures (*LIMA*).

Special Events

Recommendation 127 Not Amended
Establish an administrative procedure with DMH, Port of Bunbury, local government and *LIMA* for the assessment of aquatic events on the waterways. Develop guidelines for establishing conditions of approval. Ensure that organisers of events are aware of their responsibility to ensure that events are conducted within conditions of approval, particularly environmental conditions (*LIMA*,

DMH, *BPA*, *LGA*).

6.5 Liaison and Co-ordination

Community Involvement

Recommendation 128 Not Amended
Retain community representation on *LIMA*, advertising locally for community representatives from individuals and interest groups (*LIMA*).

Submission Comments

The request was made that a representative from Australian Anglers Association be on *LIMA*. Appointments to *LIMA* are made by the Governor on recommendation from the Minister for the Environment. As there are many groups who wish to be represented advertising for public expression is the most equitable way to ensure that a cross section of views and users is represented on *LIMA*.

Recommendation 129 Not Amended
Consult with the community during preparation of plans and programmes in addition to calling for submissions on the draft documents (*LIMA*).

Recommendation 130 Amended
Develop and maintain a list of community groups and individuals who wish to be involved with the preparation and implementation of plans and programmes (*LIMA*).

Submission Comments

One submission commented that community groups should be encouraged to become involved with the rehabilitation of areas. The recommendation has been amended to reflect this.

State and Local Government Representation

Recommendation 131 Not Amended
Retain local government representatives on *LIMA* selected from the authorities within the management area (*WWC*, *LIMA*).

Recommendation 132 Amended
Ensure that government agencies are represented on *LIMA* or seconded for committees of *LIMA* (*LIMA*).

Submission Comments

It was suggested that a representative from DPUD was not necessary. As no response was received from DPUD on this matter this section has been deleted.

Administrative Procedures

Recommendation 133 Not Amended
Develop a streamlined referral and approval procedure with local and State government bodies. These referral procedures should appear as appendices to the management programme and be updated as required (*LIMA*).



6.6 Fishery Management

Fishing

Recommendation 134 Amended
Liaise with Fisheries on aquaculture proposals to assess the impact on the estuary including the potential impact on other recreational uses (*LIMA, DOF*).

Submission Comments

It was suggested that all issues should be addressed not just recreation. The recommendation has been amended to reflect this.

Another submission commented that it may not be appropriate to accept any aquaculture on the waterways. The 'Need for Action' has been amended to reflect this comment.

Recommendation 135 Not Amended
Liaise with Fisheries on policy preparation for management of the professional and recreational fishery (*LIMA, DOF*).

Submission Comments

It was suggested in one submission that it should not be taken for granted that there should be on-going access for professional fishermen. This is acknowledged but it is considered this would be debated in the policy preparation and that the Department of Fisheries would also seek considerable public comment on the issue.

Recommendation 136 Not Amended
Provide and encourage where appropriate the development of jetties and other facilities for fishing (*LIMA, DOF, LGAs*).

Recommendation 137 Not Amended
Protect the shallow areas and other fish habitats of the waterways as nursery and breeding grounds for fish (*LIMA, DOF, CALM*).

Recommendation 138 Amended
Combine with Fisheries to develop education programmes on conservation of the fishery resource (*DOF, LIMA*).

Submission Comments

The Department of Fisheries has been identified as the lead agency in accordance with a suggestion made in the submissions.

Additional Comments Relating to Fishing

One submission requested that LIMA liaise with the W.A. Recreational and Sportsfishing Council and the Australian Anglers Association (W.A. Div.) Inc. when implementing recommendations relating to fishing. LIMA acknowledges this request.

Another comment was made that LIMA should monitor and implement recommendations arising from the 'Discussion Paper-Future for Recreational Fishing'. LIMA supports this suggestion and will liaise with the Department of Fisheries on the final recommendations.

6.7 Public Education

Education Programmes

Recommendation 139 Not Amended
Implement public education and interpretative programmes which promote awareness, appreciation, understanding and active concern for the natural and cultural values of the waterways environment. These programmes should be designed to involve active public participation (*LIMA*).

Recommendation 140 Not Amended
Combine education programmes with other agencies. Incorporate waterway management philosophies into material of other agencies where appropriate (*LIMA, DMH, DOF, CALM, LGAs*).

Recommendation 141 Not Amended
Consider the release of media statements on specific issues which arise on a seasonal or regular basis (*LIMA*).

6.8 Management

Management Area Boundaries

Recommendation 142 Amended
Extend the LIMA management area to include the Ferguson and Preston Rivers in consultation with EPA and SWDA. All boundaries should be determined on a catchment management basis (*LIMA, EPA, SWDA, LGA*).

Submission Comments

Two submissions commented that plans to extend LIMA's area should ensure a more wholistic and integrated approach. Another requested that LGAs be involved with implementation of the recommendation. The recommendation has been amended to include them.

Management and Maintenance of Foreshore Reserves

Recommendation 143 Not Amended
Adopt the criteria detailing funding for management and maintenance of foreshore reserves (*LIMA*).

Recommendation 144 Not Amended
Develop a works programme for new and upgraded foreshore reserves outlining responsibility for works and a time schedule for implementation (*LIMA, DPUD, DOLA, LGA*).



Recommendation 145 Not Amended
Develop an administrative arrangement between LIMA, DPUD, DOLA and local government for the lease back of foreshore reserves subject to conditions of use (LIMA, DPUD, DOLA, LGAs).

Staff and Finance

Recommendation 146 Not Amended
Develop a more diversified staff structure at LIMA to ensure effective waterways management (WWC, LIMA).

Development Approval Implementation

Recommendation 147 Not Amended
Develop an administrative procedure between local government and government agencies to ensure that conditions of approval are implemented to specifications (LIMA, LGA, DPUD).

Recommendation 148 Not Amended
Ensure that construction and works staff carrying out works on or abutting the foreshore are made aware of the sensitive nature of the work. Wherever possible foreshore reserves should be pegged and staff made aware that works should not intrude into this area (LIMA, LGA, DPUD).

Review and Amendment of the Management Programme

Recommendation 149 Not Amended
Consult with affected persons and agencies regarding proposed amendments to the management programme. Wherever possible this should be by personal correspondence as well as advertising in local papers (LIMA).

Recommendation 150 Not Amended
Monitor use of the waterways for problems and issues not addressed in the management programme and amend the programme if required (LIMA).

Recommendation 151 Not Amended
Review the complete management programme after seven years (LIMA).

Submission Comments

One submission commented that the review should only consist of an update setting out what has been accomplished in the past 7 years and what new problems have arisen. This may be possible depending on the status of the programme and developments that have occurred around the estuary. LIMA also has the responsibility to supply copies of the programme to interested persons and needs to compile all the changes that have occurred. The review provides the ideal opportunity to do this.

Recommendation 152 Not Amended
Policies and administrative arrangements to be listed separately from the management programme allowing a more flexible approach to modification and amendment (LIMA).

7.0 Amendments to Chapter 5: Area Recommendations

Leschenault Inlet

Recommendation A1 Not Amended
Support the implementation of the Bunbury Harbour City plan encouraging early completion of works relating to System 6 Recommendation C68 (SWDA, LIMA).

Recommendation A2 Not Amended
Develop a policy on transfer, renewal and construction of jetties in the Inlet, with Bunbury Port Authority and LIMA (LIMA, DMH, BPA).

Recommendation A3 Not Amended
Encourage the development of a management plan for Anglesea Island and associated areas focusing on conservation of the waterbird habitat and mud flats, mosquito control and public access to the area (NB if vesting remains with the City of Bunbury DOLA to require the plan as a condition of vesting) (EPA, CALM, BCC, DOLA, LIMA).

Leschenault Peninsula and Northern Estuary

Recommendation A4 Not Amended
Liaise with CALM on the development of a management plan for the Peninsula ensuring that it is complementary to the Leschenault Waterways Management Programme (CALM, LIMA).

Recommendation A5 Amended
Amend System 6 Recommendation C66 to include the southern part of the estuary and implement the general recommendations (EPA, LIMA).

Submission Comment

One submission indicated that System 6 Recommendation C66 should be expanded to include the southern part of the estuary. This is endorsed and the recommendation has been changed to reflect this.

Recommendation A6 Amended
Ensure that mosquito control is in accordance with the Mosquito Control Advisory Committee recommendations (LIMA, LGA, MCAC).

Submission Comments

The recommendation has been amended to reflect a change in roles of the responsible agencies.



Recommendation A7 Not Amended
Monitor nutrient levels in the Parkfield Drain. Encourage changes in land use and land use practices in order to reduce nutrient levels in the drain (*LIMA*).

Submission Comments

The comment was made that this is not discussed as a problem in Chapter 5 but is being looked at by the Leschenault Inlet Catchment Management Committee. The 'Need for Action' has been amended and also cross reference made to Chapter 5 Recommendation 49.

Eastern Foreshore

Recommendation A8 Not Amended
Maintain the policy of reducing boat channels to a maximum of eight (*LIMA*).

Recommendation A9 Not Amended
Restrict unauthorised boat launching (*LIMA*).

Recommendation A10 Not Amended
Develop a co-ordinated landscape plan for the area to: (*LIMA*, *LGA*)

- Stabilise foreshore erosion;
- Provide scenic views across the estuary;
- Minimise bush fires; and
- Restrict public access and boat launching.

Recommendation A11 Not Amended
Upgrade Christina Place Reserve (*LIMA*, *HSC*).

Recommendation A12 Not Amended
Ensure that Cathedral Avenue does not become a major road as a result of subdivision in the vicinity (*DPUD*, *HSC*, *LIMA*).

Recommendation A13 Amended
Develop a management plan for the Cathedral Avenue area and eastern escarpment addressing issues including nutrient input and landscape protection (*LIMA*, *HSC*).

Submission Comments

The pressure for subdivision of this area has led to the need for a management plan to protect the landscape quality and control nutrient input to the estuary. *LIMA* and the Shire of Harvey have established a working group to undertake a management plan of the area.

Vittoria Bay

Recommendation A14 Amended
Develop a recreation plan for the Cut area taking into account the proposed facility on the southern tip of the Peninsula (*LIMA*, *SECWA*, *BCC*, *HSC*).

Submission Comments

The *HSC* has been included at the suggestion of one submission.

Recommendation A15 Not Amended
Develop a foreshore management plan for Vittoria Bay covering the area from Preston River mouth to Pelican Point (*LIMA*, *BCC*, *BPA*).

Additional Comments Relating to Vittoria Bay

The comment was made that the System 6 boundary in the Vittoria Bay area is no longer relevant and *LIMA* should take a more aggressive stand to protect this area. *LIMA* agrees with this comment and a new recommendation had been included stating 'Amend the System 6 boundary in the area to include the waters of Vittoria Bay'.

The comment was made that dumping of fly ash and other wastes from the power station are not an acceptable on-going activity and no reduction in the value of the estuary should be contemplated. These comments have been incorporated into the 'Need for Action' and an additional recommendation inserted stating 'Restrict the expansion of existing fly ash pond areas adjacent to the foreshore'.

Lower Collie

Recommendation A16 Not Amended
Develop guidelines for the redevelopment of the Shoalhaven boat ramp area ensuring that there is adequate provision for boat ramps, parking and a public recreation area (*LIMA*, *BCC*).

Submission Comments

It was suggested that this has been covered as part of the current development proposal for the Pelican Point area. This is acknowledged but it should remain in the Management Programme until such time as the area is redeveloped.

Recommendation A17 Not Amended
Develop a continuous foreshore walkway (*LIMA*, *BCC*).

Recommendation A18 Not Amended
Undertake foreshore erosion works (*LIMA*, *LGAs*).

Recommendation A19 Not Amended
Establish fishing facilities to discourage indiscriminate access to the foreshore (*LIMA*, *LGAs*).

Recommendation A20 Not Amended
Establish foreshore reserves as subdivision occurs in upstream areas (*DPUD*, *LGA*, *LIMA*).



Additional Comments relating to the Lower Collie

Implementation of System 6 recommendation C67 was inadvertently left out of the review document. A new recommendation has been inserted to cover this issue.

Brunswick River and Tributaries

Recommendation A21 Amended
Ensure developments at Kemerton Industrial Park are environmentally acceptable to the health of the estuary (*EPA, LIMA*).

Submission Comments

The recommendation has been amended to address only the issue of the estuary as suggested in one submission.

Recommendation A22 Not Amended
Monitor land uses to determine potential nutrient loading changes to the waterways (*LIMA, LIMCG, DOA*).

Recommendation A23 Not Amended
Develop foreshore reserves along the Brunswick River as a condition of subdivision including the townsite of Brunswick Junction (*LIMA, LGA*).

Additional Comments Relating to the Brunswick River and Tributaries

Implementation of System 6 recommendation C67 was inadvertently left out of the review document. A new recommendation has been inserted to cover this issue.

Mid Collie

Recommendation A24 Not Amended
Restrict stock access to the river to reduce erosion, localised eutrophication and loss of vegetation (*LIMA, HSC, DSC*).

Recommendation A25 Amended
Develop a joint fire management plan with local government, *LIMA* and landowners (*LIMA, HSC, DSC, Eaton and Australind Fire Brigades*).

Submission Comments

Additional agencies have been added to the recommendation to reflect responsibilities for the issue in accordance with comments made in a submission.

Recommendation A26 Amended
Enter into agreements with landowners to provide public access or statutory access to the foreshore where appropriate (*LIMA, DOLA, HSC*).

Submission Comments

It was suggested that there also needed to be provision for management access to the foreshore for *LIMA* or other agencies. The recommendation has been amended to reflect

this.

Collie Gorge

Recommendation A27 Not Amended
Implement System 6 Recommendation C87 (*CALM, LIMA*).

Recommendation A28 Not Amended
Liaise with the Wellington Dam Planning Committee on the development of the gorge area and of the Wellington Dam. Ensure that the plan for the gorge addresses issues of: (*CALM, SWDA, LIMA*)

- camping;
- rehabilitation;
- public access to foreshore;
- a safe and attractive scenic road,
- recreation nodes; and
- suitable effluent disposal facilities .

Submission Comments

One submission commented that the opportunities section should read to 'Provide a range of camping opportunities and experience in the gorge area'. This change has been made.

The Ferguson

Recommendation A29 Not Amended
Extend the *LIMA* management area to include Ferguson River in accordance with Recommendation 142 (*EPA, LIMA*).

Recommendation A30 Not Amended
Monitor industrial land use in the area (*LIMA, EPA*).

Recommendation A31 Not Amended
Revegetate foreshore areas adjacent to industrial areas (*LIMA, DSC*).

The Preston River

Recommendation A32 Not Amended
Extend the *LIMA* management area to include the Preston River in accordance with Recommendation 142 (*EPA, LIMA*).

Recommendation A33 Not Amended
Protect the delta as a bird feeding habitat (*LIMA, BPA*).

Recommendation A34 Amended
Rehabilitate and landscape lower Preston River. Liaise with Water Authority and Port Authority on flooding and relocation of the river mouth. Encourage community groups to assist with rehabilitation works (*LIMA, WAWA, BPA, BCC*).

Submission Comments

One submission commented that it would be worthwhile encouraging community groups to assist with such projects. The recommendation



has been amended to reflect these comments. See also Section 6.2 (Conservation and Environmental Protection) where a new recommendation has been inserted dealing with rehabilitation and also Recommendation 130 which has been amended.

Recommendation A35 Not Amended
Encourage landscaping of the river to provide a focus for the communities of Donnybrook and Boyanup (*LIMA*, LGAs).

8.0 Amendments to Chapter 6: Implementation and Monitoring

It was considered that the proposed implementation strategy did not distinguish between on-going tasks and those that would be one-off projects. The recommendations have now been divided into two categories: on-going activities and one-off projects. The recommendations for on-going activities should be implemented as soon as possible. For one-off projects a time schedule has been applied to indicate priority. Readers are referred to the Management Programme for these details.

9.0 Amendment to Appendix 1: Policies

Submission Comments

One submission supported the inclusion of *LIMA* policies and strategies into LGA town planning schemes.

Another submission raised concerns over the boat channels and ramps chosen. *LIMA* has considered this issue and considers that the policy should remain as is.

One submission noted that the policy for approval of bridges has worked well in the past and should remain the same. This was supported.

10.0 Amendment to Appendix 2: Administrative Procedures

No comments were made on this section and no amendments have been made.



Appendix 1

List of organisations invited to prepare a submission

1. South West Development Authority
2. Ministry of Sport and Recreation - South West Office
3. Water Authority of Western Australia - Bunbury
4. Western Australian Tourism Commission - Bunbury
5. Bunbury Port Authority
6. Bunbury Power Station
7. Ministry of Education - Bunbury
8. Industrial Lands Development Authority
9. Department of Main Roads
10. Department of Marine and Harbours
11. Ministry of Education
12. Department of Land Administration
13. Department of Local Government
14. Bikewest
15. Department of Mines
16. Ministry of Sport and Recreation
17. Water Authority of Western Australia
18. Western Australian Tourism Commission
19. Western Australian Water Resources Council
20. Western Australian Heritage Commission
21. Power Boat Club
22. Bunbury Cycleway Committee
23. Bunbury Angling Club
24. Bunbury Water Ski Club
25. Bunbury Bushwalking Club
26. Primary Industry Association
27. Farmers' Federation
28. Eaton Progress Association
29. Binningup Progress Association
30. W.A. National Parks and Reserves Association
31. Australian Conservation Foundation
32. South West Licensed Fisherman's Association
33. Bunbury Amateur Swimming Association
34. Bunbury Triathlon Club
35. Naval Reserves Cadets
36. Bunbury Icebergers
37. W.A. Canoe Club
38. Bunbury Rowing Club
39. Bunbury and District Powerboat Club
40. Koombana Bay Sailing Club
41. Bunbury Yacht Club
42. 2nd Bunbury Sea Scouts
43. Bunbury Angling Club
44. Shire of Harvey
45. Shire of Dardanup
46. Shire of Capel
47. Shire of Collie
48. City of Bunbury
49. Shire of Donnybrook-Balingup
50. Department of Fisheries - Bunbury
51. Department of Land Administration - Bunbury
52. Department of Marine and Harbours - Bunbury
53. Environmental Protection Authority - Bunbury
54. Department of Conservation and Land Management - Bunbury
55. Department of Agriculture
56. Department of Planning and Urban Development
57. Department of Planning and Urban Development - Bunbury
58. Department of Aboriginal Sites (W.A. Museum)
59. Department of Agriculture
60. Agriculture Protection Board
61. Department of Conservation and Land Management
62. Department of Fisheries
63. Health Department of W.A.
64. Environmental Protection Authority

Appendix 2

Agencies or individuals making a submission

1. Department of Conservation and Land Management (Bunbury)
2. E. Wright (LIMA)
3. Shire of Harvey
4. Bureau of Meteorology
5. Agriculture Protection Board (Harvey)
6. Western Australian Heritage Committee
7. Department of Agriculture (Bunbury)
8. Australian Anglers Association
9. F. Knapp
10. City of Bunbury
11. Main Roads Department
12. W. Colley and G. Christie
13. Environmental Protection Authority (Perth)