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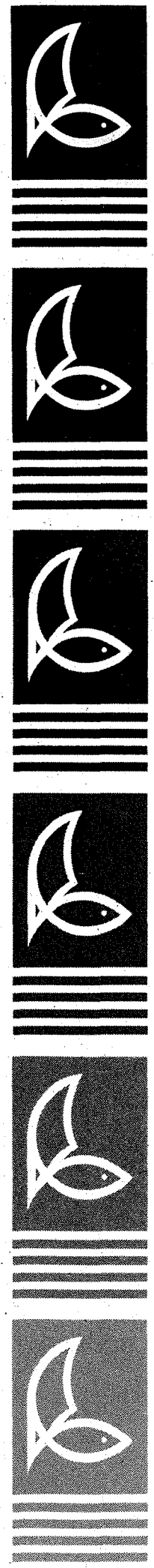
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Draft Avon River System Management Strategy

Summary of Submissions

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Abbreviations

APB	Agricultural Protection Board
ARMA	Avon River Management Authority
BFB	Bush Fires Board
CALM	Department of Conservation and Land Management
CGs	Catchment Groups
DMH	Department of Marine and Harbours
DOLA	Department of Land Administration
DPUD	Department of Planning and Urban Development
EPA	Environmental Protection Authority
GOVT	State Government of Western Australia
HCWA	Heritage Council of Western Australia
ICMCG	Integrated Catchment Management Coordinating Group
LCDCs	Land Conservation District Committees
LGAs	Local Government Authorities
LO	Landowners
LRS	Local Rural Strategy
NPNC	National Parks and Nature Conservation Authority
NTC	Northam Town Council
OCM	Office of Catchment Management
ROB	Ribbons of Blue
SLCC	Soil and Land Conservation Council
TPS	Town Planning Scheme
VBFB	Volunteer Bush Fires Brigades
WADA	Western Australian Department of Agriculture
WAHMEMS	Western Australian Hazardous Material Emergency Management Scheme
WAM	Western Australian Museum
WAWRC	Western Australian Water Resources Council
WASES	Western Australian State Emergency Services
WATC	Western Australian Tourism Commission
WAWA	Water Authority of Western Australia
WWC	Waterways Commission
YLWG	Yenyening Lakes Working Group



1. Background

The Avon River System Management Committee representing local government along the Avon River and in its catchment was formed in 1984. Since its inception the Committee has been pressing for better management of the Avon River and its catchment.

In May 1990 the Committee approached the State Government for their involvement in river management. As a result of that approach the State Government initiated the preparation of the Avon River System Management Strategy to investigate what needed to be done to preserve and rehabilitate the river system.

Preparation of the Management Strategy was carried out by the Waterways Commission in conjunction with the Avon River System Management Committee. Wide public consultation was conducted during the preparation process.

A Draft Strategy was released for a six month public comment period in August 1991. Advertisements were placed in State and local newspapers calling for submissions from members of the public. Copies of the document were available free of charge from the Waterways Commission and various local government authorities in the area.

During this time wide ranging State Government agencies, local government authorities, land conservation district committees and community groups were sent a copy of the draft document and invited to prepare a submission. Approximately 750 copies of the document were distributed during the public comment period.

In July 1992 the Avon River System Management Committee formally presented its recommendations to the State Government taking into account all comments made by the community. Following a number of Government decisions a final Strategy was released in January 1993. With the release of the Strategy was the announcement that the State Government intended to establish an Avon River Management Authority under the Waterways Conservation Act to coordinate management of the Avon River.

The purpose of this document is to provide a summary of the submissions received and to indicate where changes have been made in preparation of the Final Management Strategy. The Final Management Strategy should be obtained by the reader to be read in conjunction with this document.

2. Number and Theme of Submissions

A total of thirty three written submissions were received from a wide range of sources. A list of the submissions received is provided at the back of this document.

The majority of the submissions received were in support of the general thrust of the recommendations made in the Draft Strategy document, a number queried the need to establish an Avon River Management Authority and a number supplied further information to the Draft Strategy. Details of the preferred management option including the membership, management area and the duplication of powers were common concerns. Details of concerns common to submissions are outlined on page 4.

The submissions received fall into the following categories:

State Government Agencies	= 8
Local Government Authorities	= 6
Community Groups (including landowner, environmental, and land conservation district committees)	= 10
Private Individuals	= 8
Total	<u>33</u>

3. Submission Analysis and Methodology

Submissions received were analysed by members of the Avon River System Management Committee and staff of the Waterways Commission, consulting with the relevant persons and agencies as necessary.

A list of criteria was used for determining amendments to the Draft Strategy. These are as follows:

- **Change in government policy or philosophy**

Amendments were made where the Government had announced changes or recent decisions concerning the study area.

- **The supply of additional information**

Amendments were made to the Strategy where additional information was provided by submissions or through consultation.



- **Identified lack of clarity in the review**

Amendments were made to the Strategy where it was identified that the reader had misinterpreted information. These amendments were made to make the Strategy's intention clear.

- **Disagreement with recommendations**

Amendments to recommendations were made when a number of submissions disagreed with their intent or philosophy. Any amendments made were made carefully by looking at both the advantages and disadvantages of the opinions presented.

- **Identified changes to the implementation of recommendations**

Amendments to the review were made where comments relating to how recommendations should be implemented, who should be consulted and the priority of the recommendation were received. These comments will aid in the final implementation process.

Note: In a few cases it has been necessary to add or delete recommendations to cover the comments received. As a result the final numbering system has been altered and recommendation numbers in the Draft document do not necessarily correspond with those in the final document.

4. Common concerns

4.1 The Preferred Management Option

The Draft Management Strategy presented a number of options for a body to take overall responsibility for management of the Avon River. This body was referred to as the River Management Body.

A preferred option for the River Management Body was chosen through an evaluation process and presented for consideration by the community. The preferred option was to establish a waterways management authority under the Waterways Conservation Act 1976 - 1982. A number of submissions expressed concern about this option. These concerns are outlined below.

4.1.1 The need for another statutory body

A number of submissions raised the issue of the need for the establishment of a statutory body to carry out management of the Avon River. The submissions expressed concerns that the establishment of a waterways management authority was creating another bureaucracy which would only serve to restrict management actions being undertaken. Coordination and cooperation was considered to be more easily generated with the current management structure.

A number of submissions also expressed concern regarding the duplication of responsibilities with the establishment of a waterways management authority. The concern was that there was no need to establish a further body to undertake activities already being carried out by LCDCs, the Water Authority, the Department of Agriculture and other management agencies.

Discussion

The State Government considers that the waterways management authorities operating in other areas of the State are working very effectively. It is considered that this form of management has proven to be the best form of community based river management.

Submissions have raised a number of concerns which appear to relate to misconceptions about the operations of a waterways management authority. More concise information has been included in the Final Management Strategy to more fully explain the Authority's role. This information includes the following points.

- A waterways management authority is a community based group which represents community interests in management of the river and its foreshores. Although an authority is a statutory body it is limited in its legislative powers. Its main aim is to develop cooperation between the many agencies involved in management and it would not aim to restrict the activities of farmers or management groups in the region.
- A major advantage of being a statutory body is that the authority would be supplied with a budget of State Government funds which would be able to be used for rehabilitation and maintenance of the river system. An authority also provides an avenue through which the community can approach the State Government for further funding.
- A waterways management authority would have quite specific powers which relate to the protection of the bed and banks of the river. There is no management agency currently possessing the powers or the commitment to deal specifically with issues facing the river. A waterways management authority has no powers



to act in the area of catchment management and it would not be appropriate or possible in practice for an authority to have such powers.

- A waterways management authority's role in the catchment would be a supportive one. It would provide advice and information to catchment management agencies and encourage their consideration of waterway objectives in catchment planning.
- Land conservation district committees (LCDC's) are clearly the main mechanism for undertaking land management improvements at a community scale and the Department of Agriculture is the most appropriate agency to take the lead in catchment planning. The Strategy clearly outlines this by the identification of LCDCs and the Department of Agriculture as the primary responsible agencies for recommendations relating to catchment management.
- All the recommendations contained in the Strategy will not be undertaken by the waterways management authority. Responsible agencies are listed in the brackets following each recommendation. The waterways management authority would only be responsible for implementing recommendations which directly relate to river issues.

4.1.2 Composition

A large number of submissions disagreed with the suggested composition of the waterways management authority outlined in the Draft Management Strategy. Submissions suggested various combinations of representation that they considered to be more appropriate than the membership suggested in the Draft Management Strategy.

Submissions focused particularly on the inclusion of a strong local government representation and the need to include landowner and LCDC representation.

Discussion

The State Government has considered the large number of combinations of composition suggested in the submissions. It is obvious that it will be impossible to represent all interested parties on the Authority.

As a balance of community, local government and State Government representation has been found to work in other management authorities around the State, this balance is also considered the most appropriate for the Avon River Management Authority. This will allow a broad cross section of the community to become involved in planning and management of the river system.

Consideration of local government, landowner and LCDC representation has revealed that these groups represent the major stakeholders in the river

environment and should be included in the membership. These groups have been included in the Final Strategy. Specific organisations have not been nominated for representation on the Authority in the Final Strategy. This is due to the fact that issues facing the river system are expected to change with time and therefore organisations having representation will be required to change accordingly.

4.1.3 Management area

A number of submissions raised the issue of the waterways management area being too large and inappropriate. The submissions considered that the management area should be reduced to include only the inner Avon catchment. The whole of the river basin was considered to be too large an area making management administratively difficult in terms of expenditure, time, communications, travel and familiarisation with the range of issues.

One submission pointed out that there is a natural division between the zone of rejuvenated drainage (inner Avon catchment) and the zone of ancient drainage (extensive inland lake systems of the Yilgarn and Lochardt catchments) meaning that the issues confronting the outer two catchments are almost entirely related to land management and therefore have little relevance to a waterways management authority. It was considered that catchment management agencies already operating in these areas could adequately address these issues.

A number of groups consulted had an opposing opinion that the management area should include the entire Avon River Basin. This opinion was based on the concept that the river cannot be properly managed unless the land within its catchment is also managed.

As a result of the difference in opinion the Waterways Commission wrote to local government authorities in the Yilgarn and Lochardt catchments to gauge whether they wished to be involved in the management area. Responses indicated that at this stage the community in these catchments did not want to participate in management of the Avon River. It was considered that land and water management in these catchment could be adequately covered by the activities of the land conservation district committee.

Discussion

The State Government considers that the whole Avon River Basin is too large an area for a waterways management authority to logistically handle. As the people of the Yilgarn and Lochardt catchments indicated they were not interested in becoming involved in management of the river it was considered appropriate to exclude these areas from the management area. The suitability of the management area will be regularly reviewed by the management authority and extended if necessary to include these areas.



4.1.4 Funding of the waterways management authority

A number of submissions expressed the concern that more detail needed to be provided on how the proposed waterways management authority would be funded. The consensus was that the management of the river is a State responsibility and therefore funding should come from State Government funds.

Concern was also expressed at the idea of cost sharing for river maintenance between the authority and landowners or the authority and local government. Complete opposition to any rating system being established to fund river maintenance was also a common concern.

Discussion

A waterways management authority is funded through State Government Consolidated Revenue. This is outlined in the Draft Strategy, however has been expanded in the final document for clarity.

As far as cost sharing is concerned waterways management authorities in other areas of the State operate on the principal of cooperation with local government authorities and landowners. This may involve cost sharing between the Authority, local government and landowners. Local government authorities and landowners are not compelled to provide funds to finance river maintenance, however where activities or work carried out is to be of mutual benefit this seems the most appropriate funding arrangement.

eg. Local government may provide funds or labour for the development of recreational sites along the river. This is of benefit to the local community and the river as it controls public access and provides recreational opportunities which are river based.

eg. Landowners may through agreement contribute labour to a fencing or rehabilitation project which will benefit both the river and the landowner.

A waterways management authority has no power to establish a rating system to finance river management nor is it the intention of the State Government to do so. A statement clarifying this situation has been included in the Final Strategy.

4.1.5 Accountability

A number of submissions expressed the concern that the waterways management authority was not accountable to anyone except the State Government and that should the Authority not be effective the community has no method of disbanding or altering the Authority.

Discussion

A waterways management authority is similar in all respects to any other public authority in that it produces an annual statement of its expenses and activities. This

information is incorporated into the Waterways Commission's Annual Report and is available to the public.

Under the Waterways Conservation Act the Minister for the Environment can alter or disband an Authority at any time. The community has the right to approach the Minister for the Environment should they be unhappy with the performance of the Authority.

The State Government considers that this situation is satisfactory. However, at the suggestion of a number of submissions has included in the Final Strategy an Annual General Meeting to be held by the Authority. This will be basically an information exchange exercise when the Authority will inform the public of its activities and the public has the opportunity to raise its concerns.

4.1.6 Catchment Coordinating Group

A number of submissions expressed their support for the catchment coordinating group recommended in the Draft Strategy and felt this idea should be strengthened. The submissions saw this as a means to regionalise the LCDC framework and coordinate catchment management on a catchment basis. It was suggested by one submission that the waterways management authority and the catchment coordinating group could share office location and secretariat to reinforce their links.

Discussion

The State Government considers that the concept of a coordinating group to regionalise catchment management and to run in parallel with a waterways management authority could be an extremely effective one. It does however consider that such a regionalisation should be initiated by the land conservation district committee movement itself.

The final strategy has been amended to include the consideration of some form of catchment coordination, however not to recommend the formation of a Regional Catchment Coordinating Group.

The State Government has decided that it is not the purpose of the Management Strategy to direct regionalisation of the LCDC movement.

4.2 General Comments

4.2.1 Wording of recommendations

A number of submissions objected to the use of the word 'ensure' in many recommendations in the Draft Strategy. The feeling was that this implied too much of an authoritarian approach.



Discussion

This comment was considered valid. A waterways management authority has restricted powers as far as 'ensuring', by means of legislation, that people or agencies undertake certain activities. The authority would work through encouragement, support and cooperation. The word 'ensure' has therefore been replaced with a suitable alternative which implies this theme.

5. Amendments to Chapters 1: Introduction

Submission Comments

One submission made the comment that the first paragraph in Section 1.1 Purpose of the Strategy suggests that the Strategy will be broad based, whereas the last paragraph suggests that it will then act as a blueprint. It was considered that this is a contradiction of terms and was it suggested that the word 'blueprint' be replaced with the word 'framework'.

Discussion

This comment was considered valid. The Management Strategy will provide a framework for management and make recommendations for actions to be undertaken by the waterways management authority and other agencies. It cannot bind other agencies to undertake the recommended activities. The Final Strategy has been amended to reflect this comment.

6. Amendments to Chapter 2: Study Area

Submission Comments

One submission made the comment that mining as a land use in the Avon River Basin should be expanded to include base metals, gold, dimension stone and other basic raw materials such as gravel, clay and crushed rock aggregate.

Discussion

This comment is considered valid and has been incorporated into Section 2.5.3 Land Use on page 13.

7. Amendments to Chapter 3: Roles and Responsibilities

Chapter 3 has been amended to include the newly established Avon River Management Authority. Details of the Authority's roles and responsibilities and a description of how the Authority will interact with other organisations is provided in the Final Strategy.

Submission Comments

One submission commented that the Department of Mines should be included in the list of State Government Departments which have a management role within the Avon River Basin.

Discussion

The Draft Strategy outlines the roles and responsibilities of organisations within the catchment area whose responsibilities directly affect the condition of the river. Many other organisations which carry out planning, development and management of natural resources exist within the catchment. Due to their large number not all can be considered in the Management Strategy.

It is recognised that the Department of Mines plays a part in management of the natural resources in the Avon River Basin, however it does not have a direct responsibility for planning or management of the river, nor does its responsibilities affect the condition of the river to any great degree. The Mines Department has therefore not been included in Chapter 3 of the Final Management Strategy. A discussion explaining the choice of organisations has been inserted in the introduction to Chapter 3 for clarification.

Submission Comments

Two submissions made the comment that the Western Australian Water Resources has recently commissioned the preparation of the report entitled 'The State of the Rivers of the South-West Drainage Division'.

Discussion

A discussion of the above report has been inserted in the Final Strategy in Section 3.3.3.9 on page 29.

8. Amendments to Chapter 4: Management Issues

No comments received.



9. Amendments to Chapter 5: Management Objectives

Submission Comments

One submission made the comment that Objectives 1, 2 and 3 are all current areas of local government involvement in conjunction with various related State Government agencies.

Discussion

No amendment to the Strategy has been made as a result of this comment. It is recognised that these are areas of local government involvement, however it is considered that there is no organisation which specifically deals with river issues. A waterways management authority's objectives are specifically for the protection of the river system and through working closely with local government and other organisations they can achieve effective management.

Submission Comments

One submission made the comment that objectives 4 and 5 are currently being covered by LCDCs and other bodies.

No amendment has been made to the Strategy as a result of this comment. The Strategy does not intend to remove the responsibility of the LCDCs and other bodies involved in catchment management and this is demonstrated in the listing of responsible agencies for the recommendations relating to catchment management. A waterways management authority would have no powers to control activities of catchment management, however would work in cooperation with catchment management agencies to aid them in achieving their goals. The involvement of the waterways management authority in catchment management has been more clearly explained in the Final Management Strategy.

Submission Comments

One submission made the comment that catchment planning considered in Objective 4 is already being carried out effectively by LCDCs and there is no need for another body such as the river management body (now ARMA) to be involved.

Discussion

No amendment has been made as a result of this comment. The Strategy recognises that land conservation district committees are clearly the main mechanism for undertaking land management improvements at a community scale and the Department of Agriculture is the most appropriate agency to take the lead in catchment planning. The Strategy clearly outlines this by the identification of LCDCs and the Department of Agriculture as the primary responsible

agencies for recommendations relating to catchment planning and management.

Submission Comments

One submission made the comment that the linking suggested in Objective 5 need only be consultative and catchment plans are currently being prepared with the assistance of the Department of Agriculture who will obviously take the whole system into account.

Discussion

No amendment has been made as a result of this comment. The mechanism recommended in Objective 5 to link catchment management with waterways management is considered to be consultative. This mechanism only serves to encourage good communication and cooperation between the LCDCs, the Department of Agriculture and waterways managers. As it is not specifically the Department of Agriculture's charter to consider waterways issues, it would be the aim of the waterways management authority to bring a waterways perspective to catchment planning and management.

Submission Comments

One submission made the comment that Objective 6 is taking the wrong approach. Landowners are already undertaking catchment planning because they see the benefits to themselves and the community.

Discussion

No amendment has been made as a result of this comment. This issue is discussed in detail in the list of common concerns at the beginning of this document.

10. Amendments to Chapter 6: Foreshore and Waterway Management

In response to submissions received a number of amendments to recommendations in the Draft Strategy have been made. As a result the numbering system for recommendations in the Final Strategy has been altered slightly. The following summary of submission comments relates to the numbering system in the Draft Strategy.

Where changes in numbers have occurred the corresponding recommendation number in the Final Strategy is given. In cases where comments were not made the recommendations are not included in the summary.

Due to the announcement by the State Government to establish the Avon River Management Authority all recommendations made the responsibility of the River Management Body (RMB) have become the responsibility of the Avon River Management Authority (ARMA) in the Final Strategy.



10.1 Conservation and Rehabilitation

Water Quality

Comments on Need for Action

One submission made the comment that the Strategy gives no detail of the species of flora and fauna lost as a result of the increases in salinity in the river system.

Discussion

No amendment has been made as a result of this comment. The need for action is a brief description of the problems facing the river as far as water quality is concerned. It is not the intention of this section to go into detailed descriptions of flora and fauna species and the like. In Chapter 2 the reader is requested to consult quoted references for further detail.

Recommendation 1: Amended

Recommendation 1 in Final Strategy

Develop a water quality monitoring programme to determine changes in water quality. (ARMA, WWC, WAWA, LGAs)

Submission Comments

One submission made the comment that local government authorities have a role to play in water quality monitoring and should be included in the responsible agencies listed.

Discussion

Currently LGAs are supporting the Ribbons of Blue Monitoring Programme. This support is essential to the continuation of the programme. Local government may also need to be employed to assist the Management Authority in day to day monitoring of the river. This could include the local government health inspector assisting in water sample collection for example. The recommendation has therefore been amended to include LGAs in the responsible agency list.

Submission Comments

Two other submissions expressed concern that water quality monitoring was already being carried out by the Water Authority of WA (WAWA).

Discussion

WAWA currently concentrates on monitoring water flow rates and salinity within the river system. To gain an overall picture of the water quality in the river other parameters need to be monitored including physical parameters such as dissolved oxygen and temperature and chemical parameters such as nutrients and pesticides. The recommendation has therefore not been amended as a result of this comment.

Recommendation 2: Not Amended

Recommendation 2 in Final Strategy

Establish a water quality data base using existing water quality data collected by the Water Authority of Western Australia. Link this data with water quality data collected for the Swan River to provide a better understanding of the relationship between the Swan and Avon River systems. (ARMA, WWC, WAWA)

Submission Comments

One submission made the comment that water quality and quantity collected by the Water Authority is part of a State-wide water resources assessment programme. This information is supplemented by data collected by other organisations and stored on a data base called the State Water Resources Information System.

Discussion

The State Water Resources Information System is recognised as a useful tool to access existing water quality data collected by the Water Authority and other organisations. The waterways management authority will however require their own data base to keep record of monitoring and enable easy data analysis for the local area. This information will be fed into the State-wide system for use by other organisations.

Recommendation 3: Not Amended

Recommendation 3 in Final Strategy

Continue and support the Ribbons of Blue Monitoring Programme as a means to aid overall water quality monitoring. (OCM, ARMA, WWC, WAWA)

Submission Comments

Two submissions made the comment that observations of the Ribbons of Blue Monitoring Programme suggests that the data is unreliable and the accuracy of the data relies heavily on the teachers and students involved.

Discussion

It is recognised that the information collected in the Ribbons of Blue Programme has to date not been totally reliable. The programme is now however, being run under the supervision of the Waterways Commission and every effort is being made to increase the reliability of data collected. The programme represents an excellent scientific and educational initiative. No amendment has therefore been made as a result of this comment

Pollution Control

Recommendation 6: Deleted

Delegate powers for pollution control under the Environmental Protection Act (1986) to the river management body. (EPA, RMB)



Recommendation 6 has been deleted in the Final Strategy due to the announcement that the State Government will establish the Avon River Management Authority. It is the general policy of the Environmental Protection Authority to automatically delegate pollution control powers to a waterways management authority. The recommendation was therefore considered unnecessary.

Recommendation 7: Not Amended Recommendation 6 in Final Strategy

Develop an administrative arrangement between the Avon River Management Authority, Water Authority of Western Australia and Environmental Protection Authority to determine the lead agency for pollution control of surface waters. (ARMA, WAWA, EPA)

Submission Comments

One submission made the comment that the Water Authority's role in the recommendation is unclear and strongly recommends that the existing arrangements remain.

Discussion

It is considered that it would be necessary to come to some arrangement between the WAWA and the waterways management authority as to which industries each agency licences and monitors. It is obvious that certain licences such as bores and industries far removed from the river will be of no concern to the waterways management authority. These should be left the responsibility of the WAWA. However, the waterways management authority will have an interest in those industries which have a potential to have an impact on the river and may be prepared to fully take over the licensing and monitoring role. An assessment of all industries and licences will need to take place so that an administrative arrangement can be developed between the WAWA and the waterways management authority as to their responsibilities. The recommendation has therefore not been amended as a result of this comment.

River Processes

Comments on need for Need for Action

One submission raised the issue that the river training scheme while criticised by many has done a lot of good. Flooding is no longer seen in the town sites or in paddocks adjacent to the river.

Discussion

This issue is considered to be adequately covered by the Strategy. Section 6.1.2 and Section 6.2.4 discuss the issue of maintaining a balance between flooding of town sites and the restoration of the rivers sediment balance. No amendment has therefore been made as a result of this comment

Weir Maintenance

Comments on Need for Action

One submission outlined the Northam Town Council's progress in regard to recommendations 16 and 17.

Discussion

The Need for action has therefore been amended to include investigations being undertaken by the Northam Town Council into the problem of silting of the Northam Town Pool. The Council has recently employed a consultant to carry out preliminary investigations and definition of the problem. This will hopefully determine the viability of excavation methods to remove silt from the pool and long term solutions to the problems of pool siltation.

Flora and Fauna

Comments on Need for Action

A number of submissions raised the issue of disturbances to the waterbird breeding areas and one submission suggested that the river should be closed to public access between 1 Sept and 30 May every year during the water bird breeding season. The suggestion was also made that selected areas along the river be set aside to provide refuge areas for wildlife.

Discussion

Closure of the river for conservation purposes is currently impossible. The Department of Marine and Harbours advise that they can close a navigable waterway for safety reasons but not for conservation reasons. Protection of birdlife during the breeding season can be accomplished in the long term by an assessment of conservation values of the river, reservation for wildlife protection if necessary and the preparation of management plans for areas which address the issue of public access and recreation.

Recommendation 30 is considered to adequately cover the issue of assessment of conservation by CALM and the reservation of areas for wildlife protection if necessary. No amendment has therefore been made as a result of these comments.

Fire Management

Recommendation 34: Amended

Recommendation 33: in Final Strategy

Develop a fire management plan to protect foreshore areas of the Avon River in cooperation with local government, the Volunteer Bush Fires Brigade, the Bush Fires Board, and landowners. Incorporate management actions into agreements developed with landowners. (ARMA, LGAs, BFB, VBFB, LO)



Submission Comments

One submission made the comment that the Volunteer Bush Fire Brigades should be added to the list of responsible agencies.

Discussion

The Volunteer Bush Fires Brigades are vital to control of fire in a rural area such as the Avon Region. Their involvement in the development of a fire management plan is extremely important. The recommendation has therefore been amended to include the Volunteer Bush Fires Brigades.

Submission Comments

Another submission commented that this is one of the most important issues concerning river management and is best done by controlled grazing of the river bed and banks at optimum times during the year.

Discussion

It is recognised that fire management is an important issue in river management and that controlled grazing can play a part in techniques used. It is however considered that the development of a management plan outlined in the recommendations will consider all options available and develop strategies which are effective and workable. No amendment has therefore been made as a result of these comments.

Weeds and Feral Animals

Recommendation 35: Amended

Recommendation 34 in Final Strategy

Develop management programmes for the control of declared plants and animals in foreshore areas. Incorporate management actions into agreements developed with landowners. (ARMA, APB, LGAs, LO)

Submission Comments

The Agricultural Protection Board (APB) in their submission commented that the Draft Strategy accurately conveys their role and that they are in support of Recommendation 35 which identifies landholders as responsible for appropriate action for declared plants and animals. They also welcome the opportunity to involve the RMB (now ARMA) in developing management programmes with landholders.

Their submission however points out that the APB deals with declared plants not weeds and identifies that it is not in the APB charter to commit resources to weed control which may need to be carried out for fire hazard or tree establishment reasons.

Their submission also points out that the term feral animal used in the Draft Strategy can be considered equivalent to the term declared animal. Using this term

would allow the APB to ensure appropriate action on feral (formally domestic) and pest species such as foxes and rabbits.

The submission also makes note that the APB advocates non-chemical or integrated weed control wherever possible. The submission recommends that it is important to avoid the reduction in available weed control options when preparing management plans so that the re-establishment and spread of declared weeds does not occur.

The APB also comments that the Draft Strategy correctly identifies erosion caused by rabbits as the main declared animal problem and welcomes the opportunity to work with catchment groups on rabbit control as a natural extension of its role with individual landholders.

Discussion

As a result of these comments amendments have been made to Section headings within the Final Strategy. Section 6.1.3.4: Weeds and Feral Animals has been renamed Section 6.1.3.4: Declared Plants and Animals. The above comments have also been incorporated in the Need for Action.

A further Section 6.1.3.5 Weed Control has also been inserted to discuss the control of weeds in foreshore areas and a recommendation made to develop weed control programmes as follows:

Recommendation 35: Added

Develop active weed control programmes for foreshore areas. Incorporate management actions into agreements with landowners. (ARMA, LO, LGAs)

Submission Comments

Another submission made the comment that this issue is of concern to landowners adjoining the river and while control of weeds and vermin is possible now, if attempts are made to isolate the river banks from properties then farmers cannot be expected to continue to control these pests in reserves without being reimbursed for the cost.

Discussion

The need for action has been amended as a result of this comment to include discussion on control of weeds and vermin in reserves. Clear explanation of the fact that farmers would only be expected to control these pests on their own land is given in the Final Strategy.

Aboriginal and European Sites

Comments on Need for Action

One submission was pleased to see the information pertaining to the Aboriginal Heritage Act and the recommendation on consulting the Department of Aboriginal Sites.



10.2 Land Use and Waterway Planning

Regional and Local Planning

Recommendation 39: Not Amended

Encourage local government authorities and Department of Planning and Urban Development to prepare regional plans for the Avon River System. (ARMA, LGAs, DPUD)

Submission Comments

One submission made the comment that the responsibility for regional planning should lie with local government authorities and not the Department of Planning and Urban Development. Local Government Authorities (LGAs) should consult with other LGA's to determine the planning of their region and DPUD should be called on for advice.

Discussion

LGA's play an important role in regional planning, however one of the roles of DPUD is to supply staff, finance and resources for the preparation of regional planning documents. In preparing these documents LGAs are involved and consulted by the Department at every stage of the planning process. No amendment has therefore been made as a result of these comments

Recommendation 43: Deleted

Zone all foreshore areas needing special protection as foreshore protection zones in town planning schemes and local rural strategies. Include management provisions for these areas to ensure the protection and enhancement of the waterway environment. (LGAs, ARMA, DPUD)

Submission Comments

One submission expressed concern at the suggestion that foreshore areas need to be zoned and suggested that this could be included under Town Planning Schemes and in policy or strategy documents. It was also suggested that further investigations should be carried out to determine whether foreshore protection zones can be included in policy documents and still give the same protection.

Discussion

The suggestion that protection can be provided through mechanisms other than zoning is considered valid. DPUD advises that foreshore areas can be protected through a number of mechanisms e.g. town planning schemes, local government policy and local rural strategies. Depending on the degree of protection required any of these three mechanisms can be utilised. It is considered that Recommendation 41 adequately

covers this issue by recommending that foreshore management issues be considered and integrated into the above mechanisms. Recommendation 43 has therefore been deleted from the Final Management Strategy.

Public Access

Comments on the Need for Action

A number of submissions expressed concern about giving the public access through private land.

Discussion

It is considered that the Need for Action adequately emphasises that it would not be feasible to provide public access through private land. It does, however consider provision of public access where special vantage points exist. This access could obviously not be provided unless the landowner was in complete agreement. Recommendation 44 includes consultation with landowners to determine the level and type of public access required. No amendment has therefore been made as a result of these comments.

Recommendation 45: Amended

Recommendation 44 In Final Strategy

Identify suitable public access nodes and develop for these purposes. Consult authorities responsible for river management when identifying sites. (LGAs, ARMA, WATC)

Submission Comments

One submission made the comment that ease of access is essential to tourism development of the Avon area and that access represents a significant constraint to development of the area's tourism potential. The Submission suggested that the Tourist Commission should be included as one of the agencies responsible for identifying suitable public access nodes.

Discussion

This is considered to be a valid comment. The recommendation has therefore been amended to include the Western Australian Tourist Commission in the list of responsible agencies.



Recommendation 48: Not Amended

Recommendation 47 in Final Strategy

Acquire foreshore reserves at subdivision to provide for public access where necessary. (DPUD, LGA's, ARMA)

Submission Comments

One submission suggested that leasing of stretches of foreshore to local landowners is in practical terms, not advisable. The submission recommended that vacant crown land or freehold land resumed by the crown be vested in the RMB (now ARMA) to ensure management is consistent.

Discussion

It is clearly stated that leasing will only be considered. It's appropriateness will depend on the nature of the land, the activities proposed to be carried out and the attitudes of the leasing landowner. Vesting in the ARMA will always be considered, however in some instances land may be better managed by the landowner with lease conditions to ensure the protection of the river and its foreshores. No amendment has therefore been made as a result of these comments.

Foreshore Ownership and Management

Comments on Need for Action

One submission made the comment that it is important to protect the river foreshores from grazing stock. It is considered that the Avon River is far too salty for stock to drink and therefore farmers would suffer little loss if the river was fenced to the 30 metre boundary from high water mark and controlled stock access allowed where necessary to control grass growth.

Discussion

The Need for Action discusses difficulties which arise in protecting foreshore areas which have a variety of ownership statuses. It discusses the fact that management agreements can be developed with landowners to protect the foreshores. The control of stock is one issue which would be considered in these agreements.

Recommendation 50: Not Amended

Recommendation 49 in Final Strategy

Develop management agreements with local landholders of foreshore areas to ensure the adequate protection and management of the foreshores. (ARMA, LGA's)

Submission Comments

One submission made the comment that any foreshore management plans depend on the clear identification of land ownership and acceptance of responsibility by the landholder. Fencing of foreshores areas may prevent the use of stock in weed suppression, make access for declared plant and animal control more difficult and reduce the involvement of the land holder because the land is excluded from use. It is suggested that agreements made with landholders should incorporate strategies which provide benefits to landholders and complement adjacent land uses.

Another submission questioned what arrangements would be necessary for development of agreements for sections of the river still in Crown Grant.

A further submission made the comment that the Strategy did not make it clear who will have ownership of the river after management agreements are developed, where funding for these agreements will come from, who will take the responsibility for policing management actions, nor who will make the decisions as to what landowners can do along the foreshores.

Discussion

It is not within the power of the Waterways Commission or a waterways management authority to resume land for reservation whether in Crown grant or otherwise.

The only mechanism to reserve land along the foreshores of waterways is through the process of subdivision. This involves the surrender of a foreshore reserve to the Crown when land is subdivided. This process of reserve acquisition is presently only a Department of Planning and Urban Development Policy and may not apply in all instances.

In regard to management of foreshore areas by a waterways management authority, an authority would liaise with landowners of foreshore and waterway areas to ensure these areas are properly managed. Decisions on the most appropriate form of management would be dealt with by the authority taking into account the concerns of the landowners and the community.

Management agreements suitable to both parties may be drawn up to facilitate management of privately owned land in environmentally sensitive areas. The preparation of management agreements would be funded by the waterways management authority through State Government funding.

The above information on management agreements has been inserted into the discussion on the interactions between the waterways management authority and landowners on page 22 of the Final Strategy.



Recommendation 51: Amended Recommendation 50 in Final Strategy

Identify all areas of vacant Crown land needing specific management actions and vest in a willing authority for the purposes of conservation, tourism/recreation environmental protection, or waterways management. (ARMA, DOLA, LGA's)

Submission Comments

Refer comments and discussion for Recommendation 48. No amendment has been made as a result of these comments.

One submission also made the comment that the recommendation should take into account tourism/recreation related land considerations as the need for action for this section clearly indicates that vacant crown land should be assessed for its recreational values. It was suggested that tourism/recreation values should be added to the recommendation in addition to conservation, environmental protection and waterways management. It was also suggested that the WA Tourism Commission should act as advisors to agencies responsible for identification and assessment of crown land values.

Discussion

The consideration of tourism/recreation values in decisions made regarding vacant crown land is considered to be a valid comment. The recommendation has therefore been amended to incorporate this comment.

Recommendation 52: No Amendment Recommendation 51 in Final Strategy

Vest all other vacant Crown land in the local government authority. The authority should have the power to lease to adjacent or nearby landowners through lease agreements. (DOLA, ARMA, LO)

Submission Comments

Refer comments and discussion for Recommendation 48. No amendment has been made as a result of these comments.

Flooding and Flood Plain Management

General Comments

A number of submissions were concerned that Recommendations 54-61 suggest that the Water Authority of WA undertake certain activities when the authority is effectively prevented from funding such activities by the new Water Bill. The new Water Bill

will require amendment to allow these recommendations to be implemented.

Another submission made the comment that the Strategy makes no mention of strategies for flooding in the upper reaches of the river and that no consideration of trying to define the river course where it changes from flood to flood and how to manage the foreshore under these conditions.

Discussion

It was considered that the responsible agency (i.e. the Water Authority) for these recommendation not be amended at this stage. During preparation of the Final Management Strategy the new Water Bill was in its public comment period. Should the Bill be passed with the proposed changes whereby preventing the Water Authority from funding the recommended activities, it is recommended that the ARMA become the initiating agency.

The Water Authority has advised that should the Water Bill be passed in its current form, the Authority will still be able to undertake activities for which they have the best logistic and technical expertise. This would however need to be through arrangements such as special grants, negotiation or contract. The approach therefore might be for the ARMA to apply for a special allocation of government funds and then contract the Water Authority to carry out the recommended activity.

Note: The Waterways Commission has prepared a submission to the Water Bill. The Commission's view is that the exclusion of the Water Authority from funding these sorts of activities is not a suitable option.

In regard to flooding in the upper reaches of the river it should be pointed out that Chapter 6 deals specifically with foreshore and waterway management in the area between the Swan River Trust Management Area Boundary and Qualandary Crossing. Strategies for flooding control in the upper reaches of the river is considered to be adequately addressed in Chapter 7: Catchment Management under the heading Flooding.

Recommendation 54: Amended Recommendation 53 in Final Strategy

Review flood studies carried out for the four towns Toodyay, Northam, York and Beverley when necessary in order to maintain accuracy of flood information. (WAWA)

Submission Comments

One submission commented that review of flood studies generally only happen when a major flow has occurred in order to confirm the reliability of the estimated 100 year flood levels.



Discussion

It is recognised that the update of flood studies is a time and resource consuming exercise and that regular reviews may not be necessary. The recommendation however should still reflect the fact that these reviews are important to maintain the accuracy of flood information. The regularity of reviews as stated in the submission will of course depend on the nature of river flows. The recommendation has therefore been amended to reflect this comment.

Recommendation 55: Amended

Recommendation 54 in Final Strategy

Require developers of rural land adjacent to the river to carry out flood studies to estimate the impact development may have on flood waters in these areas. Carry out comprehensive flood studies for rural areas when resources area available (WAWA).

Submission Comments

The Water Authority of Western Australia advised that it is highly unlikely that they could carry out formal flood studies for the area outside the townsites and suggest that any flood study which is required for a specific rural area could be funded by the developer, who then has the option of obtaining a private consultant or contracting the Water Authority to conduct the study.

Discussion

It is considered that these comments are valid. The recommendation has therefore been amended to reflect the comments received.

Recommendation 60: Not amended

Recommendation 59 in Final Strategy

Prepare an information booklet for landowners adjacent to the river to improve knowledge of the need for planning approvals for works along the river. (ARMA, WAWA, LGAs)

Submission Comments

One submission made the comment that brochures and written material has little impact in rural communities and that personal visits from an Environmental Officer would be more effective and less expensive.

Discussion

Brochures and written material prepared for educational purposes is always designed for the audience to which it is aimed. If the nature of the rural community is taken into account when preparing this information then it should be effective. Personal visits to landowners is of

course a preferred approach however in many instances this can be time consuming and expensive. The recommendation has therefore not been amended as a result of these comments.

Urban Development

Recommendation 63: Not Amended

Recommendation 63 in Final Strategy

Prepare overall concept plans for urban and special rural development adjacent to the river. Include these plans in town planning schemes and local rural strategies. Plans to include factors such as:

- protection of environmentally sensitive areas.
- identification of development nodes.
- provision of public access and recreation areas.
- retention of natural vegetation.
- minimising of residential densities abutting the river.
- use of water sensitive design.
- improvement of the quality of stormwater entering the river system.
- impact of flooding.
(LGAs, ARMA, DPUD)

Submission Comments

One submission suggested that special rural zones or any other development should not occur on river frontages and certainly no development on flood plains. The submission suggested that further consideration of this issue should be given and that a distance from the river for development should be determined.

Discussion

The issue of development in the flood plain is considered in Section 6.3.4 Flooding and Flood Plain Management. This section recommends the restriction of development in the floodway and the special consideration of development proposed for other areas subject to flooding.

It is considered impossible to determine a distance for development from the river as topography, vegetation coverage and flooding characteristics vary so greatly. These sorts of issues should be considered for each individual development proposal. Section 6.3.5 also discusses the need to consider the impact on flooding when assessing development proposals in close proximity to the river. The recommendation has therefore not been amended as a result of these comments.



Industrial Development

Comments on the Need for Action

One submission supported this section and the comments made on planning for industrial development.

The submission also pointed out that the government has recently nominated Northam as a regional site included in its policy favouring development of heavy industry in selected regional centres and notes that recommendations contained in the Strategy should be recognised in the planning process of such a development.

Discussion

It is considered that this additional information is important to future management of the river system. Discussion of the issue has therefore been inserted on page 58 of the Final Strategy.

Landscape Protection

General Comments

One submission supported this section and had no objection to the development of scenic and tourist spots to allow public access to parts of the river.

Recommendation 70: Not Amended

Recommendation 69 In Final Strategy

Include consideration of landscape protection in town planning schemes, local rural strategies and local government policy to protect landscape features on privately owned land (LGAs, DPUD).

Submission Comments

One submission commented that the concept of preserving various features of the landscape is commendable, however if it restricts the landowner from earning an income in any way from the land in question then compensation would be expected.

Discussion

It was considered that this comment is valid. The aim of considering landscape protection on private land was not intended to restrict landowners from earning an income. Landowners rights will be taken into account when these sorts of considerations are being made. No amendment has been made to the recommendation as a result of this comment.

Recreation and Tourism

Recreational Use and Facilities

General Comments

One submission was concerned that recreation users have restricted use of the river because of the nature of the landownership and that the river is a National resource and should be available to everyone. Canoeing in particular should be considered an activity of low environmental impact.

Discussion

Due to the historical nature of land titles along the Avon River, privately owned land often extends across or to the centre of the river. Where these titles occur conflict may arise between river users and landowners who consider the river to be private property.

In these instances private ownership only includes the bed and banks of the river, however the water within the river is publicly owned. According to the Navigable Waters Regulations of the Marine Act a canoeist for example has the right to navigate the river as long as he or she does not trespass on the privately owned bed and banks of the river.

There is a need for the rights of users and landowners to be clearly explained so that this conflict can be minimised. Educational information dealing with recreational areas and facilities, protection of the natural environment, and the rights of users and landowners should be prepared and distributed to the local community. Careful planning and coordination of recreation and tourist facilities and activities will also minimise conflict between users, local landowners and the natural environment.

As a result of this comment the above discussion has been inserted into the Need for Action on page 60 of the Final Strategy.

Recreational Site Planning

Recommendation 76: Amended

Recommendation 75 In Final Strategy

Identify recreational nodes where future recreation facilities can be provided with minimal disturbance to the natural environment. (LGA's, ARMA, WATC)

Submission comments

One submission commented that difficulties arise in the provision and development of tourist/recreation sites because a large percentage of the river's foreshore is either taken up by private landholders, classified as reserves, relatively inaccessible or inappropriate for development due to its environmental sensitivity. It



was suggested that there needs to be a recognition that tourism is a valid land use and this needs to be translated into a land use concept plan which should over time identify suitable recreational/tourist nodes. It was therefore recommended that the Tourist Commission be added to the list of agencies responsible for identifying recreation nodes.

Another submission supported this recommendation as long as it involves the development of existing reserves and does not include the construction of roads along the edge of sections of the river. The submission expressed concern that if people are given extensive access to the river theft and vandalism on farms and the risk of fire would increase.

Discussion

Tourism is considered a valid land use in the Avon Region, especially around the towns of Toodyay, York, Northam and Beverley. For this reason the submission is right in suggesting that the WA Tourism Commission has a role to play in the identification of recreation nodes. The Commission has therefore been added to the list of responsible agencies.

In regard to the construction of road access along the river, Section 6.3.2 of the Final Strategy recommends that public access should be directed into nodes taking into account sensitivities in the natural environment. Providing road access along the river is not generally thought of as an accepted waterway management principle.

The Final Strategy also acknowledges that it would not be feasible to provide public access in areas where landowners wish to maintain their right to private use. No amendment has therefore been made as a result of these comments.

Recommendation 87: Amended

Recommendation 87 in Final Strategy

Support the implementation of the Tourist Development Plan and Tourist Development Implementation Strategy for the Midlands Region. Encourage regular updates of these documents. (WATC, LGAs, ARMA, LO)

Submission Comments

One submission made the comment that the preparation of a tourist development plan for the Avon River Region should not be a high priority as a Tourism Development Plan (TDP) for the Midlands Region which incorporates the Avon Valley area already exists. Further information was also supplied regarding the Tourist Development Implementation Strategy which also exists for the area.

Discussion

As a result of these comments it is considered not necessary to prepare a further tourist development plan for the area. The recommendation has therefore been amended to support the implementation of the existing plan.

11. Amendments to Chapter 7: Catchment Management

General Comments

A number of submissions made the comment that all the issues considered in Chapter 7 are being addressed by farmers themselves and land conservation district committees. Their actions are being well coordinated through input from the Department of Agriculture and there is little need for the creation of another body to deal with these issues.

It was also suggested that the Commissioner for Soil already has the power to force landowners to undertake activities suggested in the Chapter.

A further submission made the comment that recognition should be made of the increasing role played by LCDCs in catchment management and the fact that these bodies are aided by the significant infrastructure of the Western Australian Department of Agriculture under the Landcare Programme. The submission also suggested that a regular forum of LCDCs in the Avon Catchment be created.

Another submission made the comment that no incentives exist for the farmer to be greatly concerned about land and soil conservation and that taxation deductions of costs involved should be considered to make it viable for farmers to protect their land and the country's interests.

Discussion

All comments made about catchment management were considered valid. It is not the purpose of the Management Strategy or the recommendations of the Strategy to solve land management problems

Detailed discussion of the effectiveness of LCDCs and the Department of Agriculture in the area of land management is given in the Section on Common Concerns at the beginning of this report. This points out the waterways management authority's role in catchment management and clarifies that the Authority will not be another body to deal with catchment management issues. Due to the apparent confusion as to the role of a waterways management authority in catchment management the ARMA has been removed from the list of responsible agencies in a number of



recommendations made in Chapter 7. The Authority's role is therefore purely a supportive one in the area of catchment management.

11.1 The Issues

Control of Saline Water Flow

Recommendation 89: Not Amended

Recommendation 88 In Final Strategy

Review the recommendations of the Yenyening Lakes Working Group for control of saline water flow from the Yenyening Lake system into the Avon River. (ARMA, YLWG, WAWA)

Submission Comments

One submission noted that LCDCs are becoming increasingly important and the Draft Strategy does not make it clear whether the Yenyening Working Group is a local community group or an LCDC.

Discussion

Paragraph 3 on page 56 clearly explains that the Yenyening Lakes Working Group consists of technical officers from a number of Government Departments with expertise in the area. They are considered to be a Government Task Group to deal with a specific issue. They could not be classed with local community groups or land conservation district committees. No amendment has therefore been made as a result of this comment.

Recommendation 91: Amended

Recommendation 90 In Final Strategy

Encourage the employment of appropriate land management techniques and continuing study in the area to reduce the levels of salt being transported to the Avon River and its tributaries. (WADA, LCDCs, CGs, ARMA)

Submission Comments

One submission made the comment that the recommendation does not define how the RMB (Now ARMA) will 'ensure' the appropriate catchment management initiatives are carried out and that the initiatives have not been clearly identified.

Discussion

The Avon River Management Authority will not have the power to ensure by means of legislation the use of appropriate catchment management initiatives. It will however work with catchment management agencies to encourage initiatives in the area of land and water care. The Department of Agriculture in conjunction with land conservation district committees are clearly

the main mechanism for identifying the initiatives to be undertaken. It is not considered the place of the Management Strategy to consider these initiatives in any detail. The recommendation has therefore been amended to include encouragement of the use of appropriate management techniques in the catchment.

Pollution

Recommendation 94: Amended

Recommendation 93 In Final Strategy

Monitor levels of nutrients, pesticides and other pollutants entering the Avon River from different catchment areas within the Avon River Basin in order to identify major fluxes of salts and contaminants and gain a better understanding of the Avon System. (ARMA, WADA, ROB)

Submission Comments

One submission made the comment that the water quality monitoring suggested in the recommendation should be a means to an end not an end in itself. The report should link monitoring with the identification of major fluxes of salts and contaminants to gain a better understanding of the dynamics of the Avon and Swan systems.

The submission comment is considered valid. Any water quality monitoring programme established would need to have objectives which will have some bearing on identification of solutions to water quality problems. Without these objectives such a monitoring programme would be useless. The recommendation has therefore been amended to reflect the comment.

Recommendation 96: Not Amended

Recommendation 95 In Final Strategy

Improve fertiliser management practices with regard to type, rate and timing of fertiliser application. (WADA, LGAs, LCDCs)

Submission Comments

One submission commented that this issue is already being addressed by the Department of Agriculture and that the discussion does not address the problem of reduced profitability if nutrient levels are reduced. The submission suggested was made that the cost may have to be born by the whole community.

Discussion

The recommendation makes it clear that the Department of Agriculture is the responsible agency for implementing this recommendation. It is recognised that the Department is already undertaking research into fertiliser use, it is however considered necessary to reinforce the issue as a possible contributor to water



quality problems in the river system. In developing appropriate management practices the Department of Agriculture would need to consider any reduced profitability that may result and methods of bearing this cost. The recommendation has therefore not been amended with the exception of removing the RMB (Now ARMA) from the list of responsible agencies.

Flooding

General Comments

The Water Authority of Western Australia advises that existing gauging stations in the study area may be able to be developed to fulfil the requirements of flood warning stations, but it is likely that some new stations will be required. The Flood Warning Consultative Committee has developed a five year plan dealing with flood warning and prediction and is pursuing funding for flood warning stations as part of their proposed programme.

Discussion

As a result of these comments a discussion of the Flood Warning Consultative Committee's five year plan has been inserted into the discussion on flooding on page 69 of the Final Strategy.

Recommendation 98: Not Amended Recommendation 97 in Final Strategy

Apply appropriate land conservation techniques in catchment areas to increase infiltration of rain where it falls and hence reduce the rate of water discharge into the Avon River and its tributary. (WADA, LCDCs, CGs)

Submission Comments

One submission made the comment that this recommendation is fine for some sections of the catchment area but there are farms that have installed hundreds of kilometres of banks and drains simply to remove the excess water to prevent waterlogging and to lower the water table to help reduce salinity.

Discussion

It is recognised that the necessity to increase infiltration of rain where it falls may not be appropriate to all areas of the catchment. It is however considered that the Department of Agriculture in conjunction with land conservation district committees and catchment groups will take all land degradation problems into account when deciding on the most appropriate land conservation techniques to employ. The recommendation has therefore not been amended as a result of this comment.

Lakes and Tributaries

Recommendation 99: Not Amended

Recommendation 98 in Final Strategy

Identify all problems associated with lakes and tributaries within the Avon River Basin and apply appropriate catchment management techniques. (LCDCs, CGs, ARMA)

Submission Comments

One submission made the comment that fencing of existing salt lakes in the whole of the catchment area should be undertaken. It is noted that many farmers have already fenced their salt land and reestablished trees and salt bush to these areas with considerable success.

Discussion

The land conservation district committees have been identified as the responsible agency for the above recommendation. It will be necessary for these groups to identify the problems associated with lakes and tributaries in their district. Fencing and revegetation may well be the most appropriate technique to employ, however this will depend on the nature of the problem. The Avon River Management Authority has been identified as an agency that may become involved in implementing this recommendation. This body may supply advice and support to the land conservation district committees to determine the appropriate techniques to employ. The recommendation has therefore not been amended as a result of this comment.

Conservation

General Comments

One submission made the comment that CALM is already addressing the issues of conservation and schemes are available to encourage landowners to fence off remnant vegetation via grants.

Another submission suggested that farmers and landowners should be prepared to put at least 15 % of their property to trees and these trees should be placed in strategic areas of the property to overcome erosion, salt etc.

Discussion

The discussion on page 70 of the Final Strategy, (page 61 of the Draft) outlines CALMs involvement in reserve management and use of the Remnant Vegetation Scheme to encourage landowners to protect remnant vegetation. This issue is considered to be adequately addressed.

The suggestion that farmers should be prepared to put at least 15% of their land to trees is considered an admirable suggestion. There is currently however no mechanism through which this could occur. CALM and other agencies through education and subsidy are



encouraging farmers to commit by their own decision areas of their property to trees. This approach is considered more effective than enforcement.

11.2 Catchment Planning

Recommendation 100: Not Amended

Recommendation 99 in Final Strategy

Encourage the development of catchment plans at a local and regional level to coordinate catchment management planning in the Avon River Basin. (WADA, CGs, LCDCs).

Submission comments

One submission made the comment that the implementation of catchment management plans could be included as an issue in the Strategy particularly via the various mechanisms such as:

- Statements of Planning Policy
- Environmental Protection Policy
- Town Planning Schemes and Region Plans
- Local Rural Strategy
- Structure Plans and Development Control Policies.

It is not considered appropriate for the Management Strategy to go into detail of the implementation of catchment management plans. It is however considered that the mechanisms provided by the submission could be utilised and therefore a brief discussion has been inserted into Final the Strategy on page 72.

Recommendation 104: Not Amended

Recommendation 103 in Final Strategy

Encourage government agencies other than the Department of Agriculture to provide information towards the formulation of catchment management plans. Provide an information package for land conservation district committees and catchment groups to inform them of the role of these agencies in catchment planning and what assistance they can offer. (WADA, ARMA)

Submission Comments

One submission made the comment that the river management body (now ARMA) has no role to play in this recommendation.

Discussion

It is considered that the river management body (now ARMA) would play a supportive role in these recommendations. ARMA could supply information to land conservation district committees regarding agencies dealing with waterway issues. Their aim would be to encourage a waterway perspective into catchment planning. The recommendation has therefore not been amended as a result of this comment.

11.3 Linking the Catchment with the Waterway

Recommendation 106: Not Amended

Recommendation 105 in Final Strategy

Encourage the development of a mechanism through which catchment groups and land conservation district committees can interact with waterways management agencies. (ARMA, WADA, LCDCs, CGs)

Submission comments

A number of submissions suggested that the development of a Regional LCDC body could facilitate this mechanism.

Discussion

The issue of the development of a LCDC forum is considered in the discussion of common concerns at the beginning of this report.

12. Amendments to Chapter 8: Management Framework Options

Chapter 8 has been omitted from the Final Strategy following the State Government's decision to establish the Avon River Management Authority.

This decision was made after recommendation from the Avon River System Management Committee following the public comment period for the Draft Strategy. Comments received concerning the management framework options and the preferred option (A Waterways Management Authority) are outlined in the section discussing common concerns are the front of this document.

Out of the submissions received the following breakdown of support for the various options was expressed:

- Two submissions supported Option 1
- Twelve submissions supported Option 2
- No submissions supported Options 3, 4 and 5

A further Option to establish an Avon River Advisory Council was also suggested by one submission. This option included a non-statutory body which would co-ordinate river rehabilitation. The Council was suggested to be composed of State Government, local government, LCDC, landholder group and farmer representation. Funding for the Council was to come from landcare allocations.



13. Amendments to Chapter 9: The Preferred Management Framework

Recommendation 109 -111 have been deleted from the Management Strategy following the Government's decision to establish the Avon River Management Authority. Details of the Authority are now outlined in Section 3.2 of the Final Strategy. The majority of comments on these three recommendations are covered by the comments made in the Section on common concerns at the front of this document. Further Comments are outlined below.

Community Participation and Education

Recommendation 122: Not Amended

Recommendation 115 in Final Strategy

Implement community education programmes to promote awareness, appreciation and understanding of the riverine environment. (ARMA)

Submission Comments

One submission made the comment that brochures and written material has little impact in rural communities and that personal visits from an Environmental Officer would be more effective and less expensive.

Discussion

Brochures and written material prepared for educational purposes is always designed for the audience to which it is aimed. If the nature of the rural community is taken into account when preparing this information then it should be effective. Personal visits to landowners is of course a preferred approach however in many instances this can be time consuming and expensive. No amendment has therefore been made as a result of this comment.

Staff and Finance

General Comments

One submission endorsed the employment of a full time Environmental Officer in the region, however suggested that this should not be a ranger but a fully qualified graduate.

Recommendation 123: Deleted

Ensure that funding provided to the waterways management authority is adequate to allow it to carry out its functions and effectively manage the river system. (GOVT, WWC)

Submission Comments

Refer to comments on funding in the list of common concerns at the beginning of this report

Recommendation 124: Deleted

Develop appropriate funding arrangements for river maintenance. This may include cost sharing between local government, the State, developers and private landowners. (RMB, LGAs, DEV)

Submission Comments

Refer to comments on funding in the list of common concerns at the beginning of this report

Recommendation 123 and 124 have been deleted and incorporated into Section 3.2 of the Final Strategy. The information provided on funding has been expanded to ensure the community is clear on funding arrangements for the Management Authority.

Implementation of Recommendations

Submission Comments

One submission made the comment that a further category should be added to the list of responsible agencies for initiating or implementing recommendations. This would be Local Community Groups (LCGs) and that the agency could be added to the following recommendations: 14, 15, 20, 21, 24-29, 30, 32, 33, 36-38, 43-46, 49, 53, 60-63, 69-71, 72-75, 76-80, 81, 84, 85-88, 112, 119, 120-122.

Discussion

Local community interest groups vary in number, type and enthusiasm depending on issues confronting the community. It cannot be expected that these groups be responsible for implementing recommendations in such a document. The agencies and bodies listed either have a legal or otherwise defined role in management. These groups would be expected to involve community groups through consultation and if appropriate enlist their aid in implementation of the recommendations. Involvement of local community groups is essential to the success of many of the recommendations.

As a result of these comments a further recommendation has been added to the Final Strategy. This reads:

Recommendation 116 in Final Strategy

Maintain an up to date list of community groups in the area and involve these groups in rehabilitation activities along the river wherever possible. (ARMA)



14. Amendments to the Glossary

One submission made the comment that the term 'local community' used in the document seems to mean different things in different sections.

Discussion

As a result of this comment the following definitions have been inserted into the Glossary at the back of the Final Management Strategy and all uses of these words made consistent with these definitions.

Community:

For the purposes of this document the community will refer to the residents and all interest groups in the local area. This definition excludes bodies such as State government agencies and local government authorities who have a legal or otherwise defined role in management of the river system.

Public Comment:

A legal requirement to consult the public (including the local residents of the area, State and local government agencies and any other bodies having an interest or management responsibility) prior to decision making in management and planning issues.

15. List of Submissions

Department of State Development, Western Australia

Shire of Northam

Town of Northam

Toodyay Naturalist's Club

Agricultural Protection Board of Western Australia

River Conservation Society (York)

Brookton Land Conservation District Committee

Shire of Beverley

Western Australian Tourist Commission

Mr R.W. Heal

I.C & J.I Simmonds

Mr John N. Masters

Mrs Dorrine Morrow

Shire of Pingelly

Western Australian Department of Mines

Shire of Swan

Mrs Adelphe King

York Environmental Society

Department of Aboriginal Sites, Western Australian Museum

Mr David Coutts

Water Authority of Western Australia

Department of Planning and Urban Development

Western Australia Water Resources Council

Shire of Pingelly (submission No. 2)

Avon River Landowners Group

William Roy, Agricultural Consulting and Research Services Pty Ltd

Northam Land Conservation District Committee

York Land Conservation District Committee

Western Australian Farmers Federation

Avon Descent Committee

A.R Mackenzie

Western Australian Department of Agriculture

Shire of Toodyay

Pastoralists and Graziers Association of WA