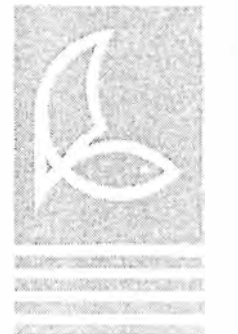
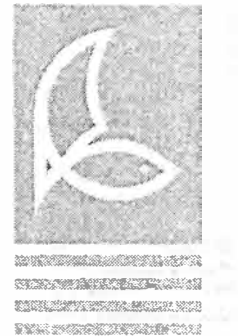
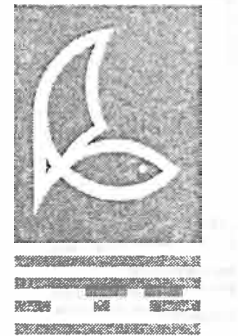
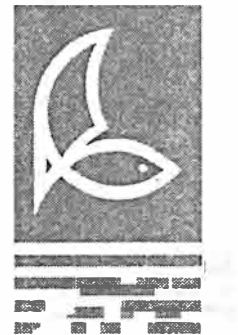
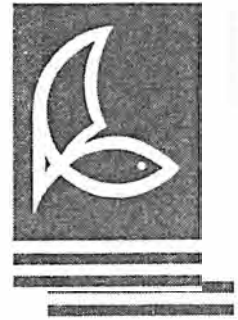


# Peel Inlet Management Programme Review 1990

## Summary of Submissions

Waterways Commission  
Report No. 29  
1992





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## **Abbreviations**

<b>CALM</b>	Department of Conservation and Land Management
<b>CLAG</b>	Contiguous Local Authorities Group
<b>CM</b>	City of Mandurah
<b>COP</b>	Commissioner of Police
<b>CPDOSPHA</b>	Contingency Plan for Dealing with Oil Spills in the Peel-Harvey Area
<b>DA</b>	Department of Agriculture
<b>DEMP</b>	Draft Emergency Procedures Manual
<b>Dev</b>	Developer
<b>DF</b>	Department of Fisheries
<b>DMH</b>	Department of Marine and Harbours
<b>DOLA</b>	Department of Land Administration
<b>DOSHWA</b>	Department of Occupational, Safety, Health of WA
<b>DPUD</b>	Department of Planning and Urban Development
<b>EPA</b>	Environmental Protection Authority
<b>FB</b>	Fire Brigade
<b>HD</b>	Health Department of WA
<b>LGA</b>	Local Government Authority
<b>ME</b>	Minister for Education
<b>MPH</b>	Minister for Public Health
<b>MRD</b>	Main Roads Department
<b>MSR</b>	Ministry of Sport and Recreation
<b>MT</b>	Minister for Transport
<b>MWR</b>	Minister for Water Resources
<b>NPNCA</b>	National Parks Nature Conservation Authority
<b>PHCDC</b>	Peel Harvey Conservation and Development Committee
<b>PIMA</b>	Peel Inlet Management Authority
<b>SAW</b>	Scout Association of WA
<b>SM</b>	Shire of Murray
<b>SWDA</b>	South West Development Authority
<b>WAHC</b>	WA Heritage Commission
<b>WAHMESWA</b>	WA Hazardous Materials Emergency Management Scheme
<b>WAM</b>	WA Museum
<b>WAN</b>	WA Naturalists' Club
<b>WATC</b>	WA Tourist Commission
<b>WAWA</b>	Water Authority of WA
<b>WWC</b>	Waterways Commission



## Background

The Peel Inlet Management Authority is responsible for the Peel Inlet Management Area declared under the Waterways Conservation Act 1976. PIMA is required under Section 35 of the Waterways Conservation Act to prepare a management programme for the area under its control. This programme is also required to be reviewed at regular intervals.

In 1982 the Peel Inlet Management Programme was gazetted. In 1989 the process of reviewing this programme began. The Draft Peel Inlet Management Programme Review was released for public comment in August 1990.

The review was advertised in State and local papers calling for submissions. Copies of the document were also available free of charge from PIMA, the Waterways Commission and at local government libraries in the area. A set of 62 colour photomaps providing detailed information relating to the Area Recommendations of the Review were also available for viewing at PIMA and the Waterways Commission.

A list of organisations including local government authorities, State government agencies and public interest groups were forwarded a copy of the review and invited to prepare a submission. During the submission period approximately 450 copies of the document were distributed.

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 Programme. The Final Management Programme should be obtained by the reader to be read in conjunction with this document

## Number and Theme of Submissions

A total of twenty six submissions were received from a wide range of sources. The submissions fall into the following categories:

State Government Agencies	= 3
Local Government Authorities	= 6
Commercial or Developmental	= 3
Individuals	= 9
Environmental Groups	= 5

A list of the submissions received is provided at the back of this document in Appendix 1. The majority of the submissions received were in support of the recommendations made in the Draft Peel Inlet Management Programme Review.

Submissions most frequently commented on specific area recommendations and their suitability. The role and membership of PIMA, sources of funding for management and the coordination of reserve management through the Peel- Harvey Regional Park concept were also common concerns.

A generally positive response was received regarding the general principles of waterway management expressed in the document and the management objectives presented.

Comments fully supported the document's approach to developing coordination and cooperation between local government and other groups involved in management.

A total of 14 General Recommendations and 26 Area Recommendations were amended in response to comments received. Small alterations were also made to the text of Chapters 1 to 4.

## Submission Analysis and Methodology

Submissions received were analysed by members and staff of the Peel Inlet Management Authority 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 review. These are as follows:

- Change in government policy or philosophy

Amendments have been made to the review where recent changes in government policy or recent decisions relating to the management area have occurred.

- The supply of additional information

Amendments have been made to the review where additional information has been provided by submissions or through consultation.

- Identified lack of clarity in the review

Amendments have been made to the review where it has been identified that the reader has misinterpreted information. These amendments have been made to make PIMA's intention clear.

- Need to change the status of recommendations

Amendments have been made to the review where recommendations have already been implemented.



- Identified changes to the implementation of recommendations

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

In a few cases it has been necessary to add recommendations to cover the comments received. So as not to interfere with the original numbering system, these recommendations have been inserted to replace recommendations which are considered to be covered by other recommendations or the 'Need for Action'.

## Amendments to Chapters 1,2, 3 and 4

### Chapter 1

Information in Chapter 1 was generally supported by submissions received and consequently no amendments have been made.

### Chapter 2

Tables 1 and 2 in Chapter 2 were found to be difficult to follow and have consequently been amended to provide rainfall and evaporation information in graphic form.

### Chapter 3

Comment was made that difficulties exist where erosion is occurring on private land, over which PIMA cannot apply other than encouragement for change. This difficulty is recognised by PIMA and has been highlighted by an amendments to the text on page 25.

### Chapter 4

The management objectives of the management programme were generally supported by the submissions received and consequently no amendment have been made.

## Amendments to Chapter 5: General Recommendations

### Agency Co-operation and Public Participation

#### State, Local Government and Community Representation

#### **Recommendation 1: Not Amended**

Continue the practice of appointing representatives from the City of Mandurah and Shires of Murray and Waroona, to PIMA (WWC).

### Submission Comments

A comment was made that further representatives from local government be appointed to PIMA and that all members of the Authority should live in the Peel region.

The Waterways Conservation Act states that the membership of PIMA must be made up of three persons from local government which have a direct interest in the management area. PIMA's current membership allows for a representative from the Shires of Mandurah, Murray and Waroona and the recommendation allows for the continuation of this practice.

The Act also specifies that membership shall so far as is practicable be selected from amongst persons resident in the local community to which PIMA relates.

It was also suggested that it may be appropriate to have a representative from the Ministry of Sport and Recreation appointed to PIMA.

Appointments to PIMA 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 expressions of public interest is the best way to ensure that a cross section of views and users is represented on PIMA.

PIMA considers that appointing a member from the Ministry for Sport and Recreation would affect the balance of the Authority. PIMA has therefore resolved to invite the Ministry for Sport and Recreation to serve on committees of the Authority and provide advice where appropriate.

#### **Recommendation 2: Not Amended**

Continue the practice of appointing representatives from the relevant State government authorities to PIMA (WWC).

#### **Submission Comments**

As for Recommendation 1.

#### **Recommendation 3: Not Amended**

Continue the practice of appointing interested members of the public to PIMA (WWC).

#### **Submission Comments**

As for Recommendation 1.

#### Administrative Referrals

#### **Recommendation 4: Not Amended**

Seek advice from all relevant authorities before reviewing management programmes (PIMA).

#### **Recommendation 5: Not Amended**

Refer all draft management programme reviews and draft policies to the relevant authorities for comment (PIMA).

#### **Submission Comments**

The comment was made that relevant authorities mentioned in the recommendation



should always be the same bodies and should include local government authorities.

Draft policies and programmes prepared by PIMA are always circulated to a large number of bodies including local government authorities. These bodies may change depending on the issues being addressed. A list of names is therefore not provided.

**Recommendation 6: Not Amended**

Refer PIMA meeting minutes to local authorities for their information (PIMA).

**Submission Comments**

As for Recommendation 5.

**Recommendation 7: Not Amended**

Refer all major development proposals to be undertaken by PIMA to the relevant authorities for comment (PIMA).

**Recommendation 8: Not Amended**

Comment on all proposed amendments to town planning schemes which affect the management area (PIMA).

**Submission Comments**

The comment was made that this procedure is presently being undertaken, with DPUD referring rezoning and subdivision proposals and the City of Mandurah development proposals to PIMA.

PIMA recognises that DPUD is currently commenting on all town planning schemes, but wishes to continue the practice itself to ensure that all issues that may affect the waterway are adequately addressed.

**Recommendation 9: Not Amended**

Seek referral of all development applications affecting the management area or waterway which are being considered by town planning authorities, to enable input from PIMA concerning waterway issues (PIMA).

**Submission Comments**

As for Recommendation 8.

PIMA also recognises that development applications are commented on by DPUD. PIMA however feels it is their responsibility to have input to the process to ensure the waterways are not adversely affected by development.

**Recommendation 10: Not Amended**

Seek referral of proposals to change the vesting, boundaries, purpose or use of reserves within the management area (PIMA, DOLA, LGAs).

**Submission Comments**

As for Recommendation 8.

**Public Education and Participation**

**Recommendation 11: Not Amended**

Seek advice from interested people and groups about the structure and content of management programmes (PIMA).

**Recommendation 12: Not Amended**

Advertise in local newspapers for public comment on management programme reviews (PIMA).

**Recommendation 13: Amended**

Prepare a comprehensive programme of public education relating to the waterway and its management (PIMA, WWC), including:

- a) Information packages for members of management authorities and committees, LGA councillors and staff, and other authorities.
- b) Information packages for members of the public.
- c) Educational packages for schools, with assistance by PIMA staff in their interpretation and use.
- d) Information for neighbours, including farmers, canal estate and river bank residents and commercial property owners and tenants.
- e) Waterways information leaflets similar to Leaflet No. 1 "The Blue Manna Crab". Other topics of immediate relevance include "Birdlife of the South-West Estuaries" and "The Samphire Marsh".
- f) Displays on the role and functions of PIMA for use in libraries and other public venues.
- g) Advertising to get information to specific audiences (for example: boat owners, anglers and yacht owners).
- h) An information video about the waterway and its management.
- i) Disseminate WWC guidelines on the control of pollution by anti-fouling paints, to all slipyard and boating operators.
- j) Prepare a pamphlet on the possible impacts of climatic change on the waterway.

**Submission Comments**

Comment was made that this recommendation should include reference to policy on foreshore reserves and implementation of policies regarding rubbish, vandalism and fisheries waste.

PIMA considers that information packages prepared for its management area would include consideration of policy on management of foreshore reserves. This issue is only one of many that need to be addressed by any information package prepared.



Other comments suggested that it is important to supply information to the public on the use of antifouling paints and the potential pollution problems resulting and the effects of climate change on the waterway.

The recommendation has been amended accordingly.

### **Additional Comments relating to Public Education**

One submission questioned the effectiveness of the educative role of PIMA. It was suggested that although general information is provided by staff members of PIMA, groups are no better placed to be able to make informed decisions on issues relating to protection of the waterway. PIMA considers public education to be an extremely important part of waterway management. A recently released education programme for schools supplies information to one sector of the community regarding protection of the waterway. It is considered that Recommendation 13 outlines the commitment PIMA is making to public education and that although staff resources are sometimes limited PIMA is dedicated to the supply of educational information to the public.

## **Conservation and Environmental Protection**

### **Water Quality Management**

#### **Recommendation 14: Not Amended**

Support and assist the implementation of the ERMP - Stage 2 which will assist in the improvement of water quality of the waterways, and report to the community concerning changes in water quality (PIMA, WWC).

#### **Recommendation 15: Amended**

Support the creation of a central committee to coordinate all planning decisions which affect the catchment of waterways to enable full consultation between authorities. The committee should include representatives of local government (PIMA).

#### **Submission Comments**

One submission supported the creation of a central committee subject to the election and technical representation of local government on such a committee.

PIMA views local government as one of the major players in planning around the waterway and within the catchment and therefore feels local government would be an important element in the creation of such a committee. The recommendation has been amended accordingly.

#### **Recommendation 16: Not Amended**

Develop a policy with respect to living on vessels within the management area to ensure they do not have an impact on water quality (PIMA, CM, SM, SW).

#### **Recommendation 17: Not Amended**

Protect fringing vegetation around the estuary which reduces the nutrient load of ground water (PIMA, LGA, CALM, DPUD).

### **Additional Comments relating to Water Quality Management**

The comment was made that the deferral of the proposed Dawesville Channel is putting an unfair emphasis on the catchment management element of water quality management. It is also suggested that we cannot expect farmer support to continue with the reluctance of the Government to initiate action.

PIMA considers that this issue is adequately covered on page 37. The strategy for improving water quality not only includes the construction of the Dawesville Channel but also catchment management to reduce the amount of phosphorous entering the estuary. Catchment management as a means to improve water quality is therefore considered to be essential in the long term and not just an interim measure prior to construction of the Dawesville Channel. A further submission suggested the use of microbiological means to improve water quality in the Peel-Harvey Estuary.

PIMA is satisfied that the extensive environmental investigation that has been carried out on the water quality problems experienced by the estuary has included careful consideration of all solutions which have been put forward.

### **Weed Harvesting**

#### **Recommendation 18: Not Amended**

Upgrade weed harvesting operations to make more effective use of existing resources in accordance with Option A outlined in "Review of Weed Removal Operations - Peel Inlet and Harvey Estuary", prepared by the Waterways Commission 1989. The funding of this work is recommended in the EPA Assessment Report relating to the ERMP - Stage 2 (PIMA, WWC).

### **Proposed Peel-Harvey Regional Park**

#### **Recommendation 19: Not Amended**

Establish the Peel - Harvey Regional Park and an effective management framework based on existing authorities (DPUD, PHCDC, CALM, EPA, PIMA, LGAs).



### **Submission Comments**

The majority of submissions supported the concept of the proposed Peel- Harvey Regional Park. One submission pointed out that this proposal would greatly assist management of the area, especially in the case of CALM's role, by providing support for actions undertaken and widening options for sources of funding and resources.

A further submission was in support of the establishment of the Regional Park subject to the government allocating funds to acquire land and carry out management.

It is considered by PIMA that this would be an integral part of implementation of the recommendation and PIMA will support provision of the appropriate funding and management.

### **Recommendation 20: Not Amended**

Determine appropriate vestings and reserve purposes for foreshore land in accordance with the Area Recommendations as outlined in Chapter 6 (PHCDC, DPUD, DOLA, LGAs).

### **Recommendation 21: Not Amended**

Establish a body to co-ordinate Regional Park management (DPUD, CALM, PHCDC).

### **Submission Comments**

As for Recommendation 19.

### **Additional Comments relating to the Peel-Harvey Regional Park**

Additional information relating to the Peel - Harvey Regional Planning Study was supplied by the Department of Planning and Urban Development. This information has been incorporated into the "Need for Action".

### **Conservation Reserves**

#### **Recommendation 22: Amended**

Support the implementation of the System 6 Recommendations C50 and C51 and provide technical advice concerning these areas if appropriate (Appendix 1). Investigate wildlife habitats within the study area and seek their protection (PIMA, PHCDC).

#### **Submission Comments**

The comment was made that this recommendation is of high priority.

A further submission made the comment that there is a need within the management programme for a statement regarding the future study of flora and fauna (particularly roosting sites for birds) within the management area.

PIMA considers this form of research to be extremely important and has amended the recommendation accordingly.

### **Additional Comments on Conservation Reserves**

The comment was made that the expectations of the management programme in regard to management of conservation reserves may not be able to be met due to funding and staffing limitations. It was suggested that CALM's Interim Guidelines for Nature Reserves could serve adequately for management of these reserves until the resources to prepare detailed management plans are available.

The "Need for Action" has been amended to incorporate this suggestion.

Another submission brought to PIMA's attention the need to carefully consider fire control in conservation reserves.

PIMA considers that this issue would be addressed by CALM in management of conservation reserves. The "Need for Action" has been amended to highlight these issues.

### **Conservation of Waterway Margins**

#### **Recommendation 23: Amended**

Establish a Waterways Protection Precinct in areas where protection of the waterways and adjacent foreshore margins is of high priority. To protect the waterway in this precinct PIMA will: (PIMA)

- Seek the acquisition and reservation of any privately owned waterway areas and recommend appropriate vesting.
- Provide advice about the development of private land which enables its use without unacceptable change to the waterways environment.
- Investigate closely the rezoning of the land in the precinct if it will enable more intensive development, and provide appropriate advice to decision making authorities.
- Identify areas of fringing vegetation and determine their current ownership and management.
- Prepare detailed recommendations about the future vesting of Vacant Crown Land and reserves which contain fringing vegetation.
- Undertake work to protect and rehabilitate areas of vegetation within this precinct in cooperation with land owners and relevant authorities and in accordance with the WWC Foreshore Management Policy.
- Undertake research to determine effective techniques for rehabilitating degraded fringing vegetation.
- Support the long term use of the State Government's moratorium on clearing and drainage, and the Environmental Protection Authority's Wetland Policy.



- Identify and monitor all existing drainage outlets into the waterway and encourage the use of biological filters on all proposed drainage systems.
- Support the implementation of the Department of Agriculture's Soil Conservation Act which prohibits the clearing of more than 1 hectare of land without a permit.
- Encourage local land owners to form local management groups to address waterway management issues.
- Identify areas of remnant vegetation and seek their protection.

#### **Submission Comments**

Support for the recommendation was given by two submissions. One submission made the comment that there is a need for protection, consolidation and maintenance of remnant vegetation within the management area. PIMA considers this of high priority and has amended the recommendation accordingly.

#### **Erosion Control**

##### **Recommendation 24: Not Amended**

Identify and monitor areas of the waterway at risk from erosion and implement a long term erosion control programme (PIMA, LGA, DMH). Control measures should include:

- Foreshore stabilisation with native vegetation.
- Tree planting adjacent to rivers.
- Improving public access to stable areas of the waterway and discouraging access to erosion prone areas.
- Adoption of agreements with landholders to prevent livestock from damaging the river banks and vegetation.
- Beach renourishment, walling, groynes, flow redirection, use of baffle boards to dissipate wave action.
- Modification to recreational activities in serious erosion areas.

##### **Recommendation 25: Not Amended**

Provide information to private land owners to encourage appropriate methods of erosion control (PIMA, LGAs).

##### **Recommendation 26: Not Amended**

Establish a Bank Revegetation Precinct in areas where revegetation of the river banks is of high priority. To further prevent loss of vegetation PIMA will encourage property owners, local government authorities and community groups to undertake revegetation programmes under PIMA's guidance (PIMA).

##### **Recommendation 27: Not Amended**

Develop techniques for propagating rushes for use in bank stabilisation programmes (PIMA, CALM).

#### **Additional Comments relating to Erosion Control**

The comment was made that difficulties exist where erosion is occurring on private land, over which PIMA cannot apply other than encouragement for change. This difficulty is recognised by PIMA and has been highlighted by an amendment to the text on page 25 relating to Erosion Control.

#### **Mosquito Control**

##### **Recommendation 28: Not Amended**

Undertake the recommended works and monitoring programmes defined in the Interim Strategy for Mosquito Control in the Peel Inlet and Leschenault Estuary Regions (PIMA, HD, LGA).

#### **Submission Comments**

One submission gave support in part to the recommendation subject to City of Mandurah's decision on Regional Mosquito Control Programme and setting up of a CLAG.

PIMA considers that this would be an integral part of the implementation of the recommendation.

#### **Aboriginal Sites**

##### **Recommendation 29: Not Amended**

Encourage management bodies and developers to consult with the Department of Aboriginal Sites, WAM, concerning development plans at an early stage to ensure that Aboriginal sites are not inadvertently disturbed (DPUD, PIMA, LGA).

#### **Additional Comments relating to Aboriginal Sites**

The comment was made that the existing system of identification of Aboriginal sites is highly unsatisfactory and that a complete list of known sites should be compiled and published.

Under current procedures the locations of Aboriginal sites are not available to the general public according to the wishes of the Aboriginal people. For this reason development proposals must first be referred to the WA Museum to ensure they do not impact on Aboriginal sites. The 'Need for Action' has been amended to highlight the difficulty associated with identifying sites.

Another submission commented on the wording of details relating to the Aboriginal Heritage Act (1972 - 80). The text of the 'Need for Action' has been amended accordingly.





## **European Historic Sites**

### **Recommendation 30: Not Amended**

Identify and protect sites of cultural and/ or historic significance by proclamation of Western Australian Heritage Legislation (WAHC).

### **Recommendation 31: Not Amended**

Develop appropriate historic sites as tourist attractions (WATC, LGAs, WAHC).

## **Land Use and Waterway Planning**

### **Peel Regional Planning Study**

#### **Recommendation 32: Not Amended**

Provide advice to DPUD concerning waterway conservation needs during preparation of the Peel Regional Planning Study (PIMA, WWC).

### **Foreshore Reserves**

#### **Recommendation 33: Not Amended**

Treat all foreshore reserves and the waterway as a single Regional Park for the purposes of planning and management (DPUD, LGAs, CALM, DOLA, PIMA).

#### **Submission Comments**

One submission was in support of the recommendation subject to the government allocating funds to acquire land and carry out management.

It is considered that this would be an integral part of the implementation of the recommendation.

Another submission suggests that if all foreshore reserves and waterways are to be treated as a Regional Park State Government authorities should become involved in management and controls.

It is considered that with the establishment of the Peel-Harvey Regional Park clear definition of management responsibilities would be made and this would include State government authorities.

#### **Recommendation 34: Not Amended**

Implement the recommendations which relate to the rationalisation of foreshore land outlined in the Area Recommendations (PIMA, DPUD, LGAs, DOLA, CALM).

#### **Submission Comments**

The comment was made that this recommendation should be subject to an assessment of foreshore land.

PIMA considers that through the process of developing the Area Recommendations an adequate assessment of foreshore land was undertaken.

#### **Recommendation 35: Not Amended**

Establish a fund to enable the purchase of privately owned foreshore land which cannot be acquired by other existing mechanisms (WWC, TREASURY).

#### **Submission Comments**

As for Recommendation 33.

#### **Recommendation 36: Not Amended**

Establish a priority order for the acquisition and vesting of foreshore land (DPUD, PIMA, LGAs).

#### **Recommendation 37: Not Amended**

Designate areas suitable for declaration of waterway recreation nodes, conservation areas and linear parks (DPUD, PIMA, LGAs, DOLA).

#### **Recommendation 38: Not Amended**

Develop foreshore reserves designated for recreational use in the Area Recommendations to facilitate water oriented activities or enhance the use of the waterway. Where the adjoining waterway is not suitable for recreation use other activities should be considered (LGA, PIMA, MSR, DPUD, DMH).

#### **Submission Comments**

As for Recommendation 33.

#### **Recommendation 39: Amended**

Determine the width of foreshore reserves taking into account the following criteria (DPUD, LGAs, PIMA, DOLA):

- future land use
- conservation of natural ecosystems
- educational value
- recreational links between linear parks
- the flood plain
- heritage values
- landscape conservation
- management access
- public access
- erosion and accretion processes
- wildlife corridors
- the need to protect water quality
- possible future changes in sea level
- the advice of the RAOU

#### **Submission Comments**

The comment was made that the recommendation requires a reference to consultation with particular avifauna committees.

PIMA considers the Royal Australasian Ornithologists Union best placed to provide this type of advice. The recommendation has been amended accordingly.



#### **Recommendation 40: Not Amended**

Identify management agencies for all foreshore reserves and Vacant Crown Land (DPUD, LGAs, CALM, PIMA).

##### **Submission Comments**

One submission supported the recommendation providing the ongoing financial commitment is recognised in accordance with an approved management plan.

PIMA recognises that financial commitment will be required for management of reserves and Vacant Crown Land. It is considered that this will be a major consideration in determining the most appropriate management agency.

#### **Recommendation 41: Not Amended**

Plan service corridors to provide for the combined needs of utilities so that all services cross the waterway at a limited number of common locations where their impact can be minimised (DPUD, LGAs and other relevant authorities).

#### **Recommendation 42: Added**

Liaise with Treasury, DOLA, DPUD and LGAs to develop a properly structured mechanism for funding foreshore reserve management. Consider the use of Trust funds as a management mechanism (PIMA).

Note: The original Recommendation 42 was found to be adequately covered in Recommendation 41.

##### **Submission Comments**

The comment was made that funding for management of foreshore reserves should be shared by, for example, State and local government and developers, thus spreading the cost of conserving over all who benefit. It was also suggested that a formula needed to be established setting out the proportional contributions, and administration of the fund. PIMA shares the view that funding for management of foreshore reserves should be structured and possibly shared between a number of parties. Recommendation 42 has been added to reflect that view and the 'Need for Action' in this section has been amended to highlight the problems of funding.

#### **Additional Comments relating to Foreshore Reserves**

The comment was made that the recommendations relating to foreshore reserves are too vague and open ended to be effective. Concern was also expressed that the width of foreshore reserves required has not been specified and that this subject should be further addressed.

It is considered that the requirement for foreshore reserves in certain areas will differ depending on a number of factors.

Recommendation 39 sets out the criteria which should be considered when determining the width of foreshore reserves. PIMA considered that these criteria set overall direction to those agencies determining the width of foreshore reserves.

#### **Landscape Protection**

#### **Recommendation 43: Amended**

Determine suitable means of land use control which enable the character of rural areas to be maintained while avoiding the necessity for land acquisition, including the use of strengthened provisions in LGA town planning schemes (DPUD, LGAs, DA).

##### **Submission Comments**

The comment was made that this recommendation should make reference to a legislative policy required to implement a proposed strategy on privately owned land where acquisition is deemed undesirable. Another submission supported the recommendation and made the comment that to some extent land use control is provided for within the Landscape Protection Zone of town planning schemes, however new schemes will have to further address this issue.

PIMA considers the use of provisions in local government authority town planning schemes as an important element in land use control and recognises that these could be strengthened to incorporate the issues mentioned. The recommendation has been amended accordingly.

#### **Recommendation 44: Not Amended**

Incorporate special zones into LGA town planning schemes to give protection to valued landscapes, particularly in built up areas (LGAs).

##### **Submission Comments**

The comment was made that the recommendation is of priority considering the current review of the Mandurah Town Planning Scheme.

A further submission suggested that the recommendation may be outside the Authority's jurisdiction.

PIMA considers that retention of highly valued landscape areas especially in built up areas is important as part of protecting the integrity of the waterway. For this reason these areas should be identified in association with LGAs and other government agencies and protected through zoning in LGA town planning schemes.

#### **Recommendation 45: Not Amended**

Prepare an overall landscape plan in order to co-ordinate landscape enhancement proposals (LGAs)



### **Submission Comments**

One submission made the comment that this recommendation is of priority considering the current review of the Mandurah Town Planning Scheme.

PIMA will ensure consideration of this priority when preparing the implementation strategy for the management programme.

Another submission indicated that landscape enhancement is provided for within the Landscape Protection Zone of town planning schemes, however new schemes will have to further address this issue.

PIMA recognises that the City of Mandurah's Town Planning Scheme does include the provision of a Landscape Protection Zone, however considers that this zone provides limited protection for landscape features.

A further submission made the comment that local government authorities haven't got the financial backing or the resources to undertake such a programme.

PIMA recognises the difficulties experienced by local government in finding funds to prepare these programmes. PIMA will therefore assist in the preparation of guidelines to aid local government authorities.

### **Recommendation 46: Not Amended**

Develop site design criteria and development guidelines for recreational nodes. Specific issues to be considered include (DPUD, PIMA, LGAs):

- recreational nodes, which should be complementary to each other. Site design should provide a range of offshore and onshore activities;
- interpretative and educational facilities;
- toilet facilities; and
- a variety of modes of access, e.g. foot, vehicle and bicycle.

### **Recommendation 47: Amended**

Control advertising signs within the management areas in accordance with set guidelines (LGAs, PIMA).

### **Submission Comments**

One submission identified a typographical error in the recommendation. The recommendation has been amended accordingly.

Another submission made the comment that this recommendation may be outside the Authority's jurisdiction.

PIMA considers that the control of such activities is important to protecting the integrity of the waterway. For this reason PIMA wishes to work with local government to prepare guidelines for controlling such activities.

### **Recommendation 48: Not Amended**

Provide low key dinghy/yacht storage areas and liaise with boat owners concerning their use (PIMA).

### **Recommendation 49: Not Amended**

If necessary, invoke the provisions of the Soil Conservation Act to prevent clearing of large areas near the waterway (DA, PIMA).

### **Australian Heritage Listing**

### **Recommendation 50: Not Amended**

Support the ongoing protection of the waterway with reference to its place on the Register of the National Estate (PIMA, WWC).

### **Public Access**

### **Recommendation 51: Amended**

Establish a Public Access Precinct in areas where the provision and management of public access is of high priority. To secure, promote and encourage public access within these areas, PIMA will:

- Support DPUD's practice of reserving and retaining (where possible) river foreshore land to provide public access, and provide advice to DPUD where necessary.
- Seek the acquisition of freehold land in accordance with the WWC Foreshore Management Policy.
- Encourage the incorporation of Vacant Crown Land and unvested reserves into existing reserves for recreation or waterways management purposes and recommend appropriate vesting.
- Promote the preparation and implementation of management plans which improve public access.
- Investigate the feasibility of entering into agreements with land owners to gain the right of public access, while protecting the rights of property owners.
- Support the planning, construction and extension of dual use paths by LGAs in accordance with the Dual Use Path Guidelines.
- Seek to ensure that the boundaries between reserves and private properties are clearly defined by road, dual use path or substantial fencing.
- Identify areas where private development of foreshore reserves has occurred and liaise with property owners and relevant authorities to remove illegal developments.
- In conjunction with WAHC, LGAs and CALM, promote and develop the concept of heritage trails in the scenic or historic



areas of the waterway to assist in the development of public awareness of the estuarine environment.

- Support the provision of unobtrusive sign-posting on public reserves, by the relevant authorities in accordance with recognised standards.
- Support the provision of foreshore facilities by LGAs to provide access for the disabled.
- Ensure ongoing public consultation on matters relating to public access.
- Consider the possibility of providing equestrian access through bridle trails.

#### **Submission Comments**

One submission supported the recommendation subject to public consultation being carried out on issues of public access.

PIMA commits itself to consulting the public on all matters of waterways management. The recommendation has been amended accordingly. A further submission identified the need for equestrian access to certain foreshore areas and suggested the provision of bridle trails.

PIMA recognises this need and has amended the recommendation accordingly.

#### **Urban Development**

##### **Recommendation 52: Not Amended**

Approving agencies to seek early consultation with PIMA when considering the subdivision or development of land within the management area to determine waterway management requirements (DPUD, LGAs).

#### **Submission Comments**

One submission supported this recommendation.

##### **Recommendation 53: Not Amended**

Ensure that the subdivision or development in newly developed or undeveloped waterway locations has regard for (DPUD, Dev):

- the nature of nearby foreshore reserves, whether conservation or recreation based;
- the capacity of the foreshore to sustain heavier use;
- the degree of protection provided for foreshore areas; and
- the inclusion in town planning schemes of landscape protection areas identifying vegetation and landforms which must be protected to maintain landscape values.

##### **Recommendation 54: Not Amended**

Ensure that residential developments near the waterway include adequate foreshore reserves which are developed and managed in accordance with WWC Foreshore Management Policy (WWC, PIMA).

#### **Commercial Development**

##### **Recommendation 55: Not Amended**

Ensure that commercial developments do not occur in areas reserved for conservation or waterway management purposes (DPUD, LGAs, DOLA, PIMA).

##### **Recommendation 56: Amended**

Have an input to ensure that commercial developments only occur in suitable locations which are chosen after careful consideration of social, environmental and physical planning criteria (DPUD, LGAs, PIMA), including:

- availability of the essential services required by development including water, sewerage, electricity and telephone;
- likelihood of development having an adverse impact on neighbouring residential areas because of noise, traffic and parking;
- intent of 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; and
- impact of the development on public access to the foreshore.

#### **Submission Comments**

The comment was made once again that the recommendation was outside the Authority's jurisdiction. Another submission supported the recommendation.

PIMA considers that although it does not play a direct role in planning matters as mentioned in the recommendation, it has an interest in consideration of planning issues which will benefit the protection of the waterway. The recommendation has been amended to show that PIMA would have an input into these matters.

##### **Recommendation 57: Not Amended**

Refer proposals which involve over-water structures, or developmental dredging, or those which abut areas which are subject to System 6 Recommendations, to the EPA for environmental impact assessment (DPUD, LGA, PIMA)



## **Dredging**

### **Recommendation 58: Not Amended**

Implement the dredging guidelines prepared by the EPA as an environment protection policy under the Environmental Protection Act 1986 (EPA, PIMA).

### **Additional Comments relating to Dredging**

One submission made the comment that the dredging of Cox's Bay has not undergone adequate environmental assessment and may not be appropriate. It was also suggested that dredging of Cox's Bay was premature in the light of the delay to construction of the Dawesville Channel.

Since release of this draft report, the dredging proposal at Cox's Bay has been subject to environmental impact assessment by the Environment Protection Authority and approval has been recommended subject to environmental conditions. PIMA considers this adequate consideration of environment impact.

A further submission expressed concern regarding the proposed dredging at Point Grey. PIMA recognises the conflict that may arise at Point Grey between recreation and conservation. In response the dredge site has been amended to a location away from the conservation reserve. PIMA also considers this proposal to be a long term planning proposal which will not be implemented unless extensive development occurs at Point Grey and environmental investigations are completed.

## **Canal Development**

### **Recommendation 59: Not Amended**

Monitor the environment of all existing canal developments to increase overall knowledge of these artificial waterways (PIMA, Dev, EPA).

### **Submission Comments**

One submission made the comment that local government did not wish to be liable for maintenance of canal developments.

Recommendation 60 following takes note of the need for a mechanism to ensure funds are available for maintenance of canals. Negotiations would take place prior to establishing such a mechanism to determine the most appropriate source of funds.

### **Additional Comments relating to Canal Development**

The comment was made that water quality problems within the canals have been over emphasised and that the deterioration of water quality is not as bad as the Management Programme indicates.

PIMA considers maintenance of water quality

in canal estates to be a major problem. Canals have in the past experienced water quality problems and the potential exists for future problems to arise. For this reason attention must be paid to this issues.

### **Recommendation 60: Not Amended**

Establish a mechanism to ensure funds are available to undertake maintenance work on canal developments when required (LGAs, DMH).

### **Recommendation 61: Not Amended**

Assess future developments on land zoned for canals with reference to increasing knowledge of the impact of existing canal estates and implications of the proposed Dawesville Channel (DPUD, PIMA, LGAs).

### **Submission Comments**

The comment was made that consideration should be made of identifying potential canal development sites with a view to coordinated planning of such waterways.

PIMA does not consider the identification of suitable sites for canal estates to be the role of DPUD ( the initiating agency) or itself. This would be the role of the developer proposing a new canal development.

A further submission suggested that canal developments are undesirable and PIMA should oppose them.

In protecting the integrity of the waterways PIMA ensures that all developments around the estuary are adequately assessed for their environmental impact. PIMA will also make recommendations regarding proposed canal development which promote the Waterways Protection Precinct identified in the Management Programme. For these reasons PIMA does not consider it their role to oppose these sorts of developments unless unacceptable environmental impacts are identified.

## **Flood Plain Management**

### **Recommendation 62: Not Amended**

Investigate the need for legislative changes in conjunction with the consolidation of the Water Authority Acts and amendments to other planning Acts, to ensure that suitable coordination exists between planning authorities and the Water Authority for sound flood plain management (WAWA).

### **Submission Comments**

Support for this recommendation was given in one submission and the suggestion made that the recommendation be acted upon as a matter of urgency.



### **Recommendation 63: Not Amended**

Prepare guidelines to assist agencies involved in planning and management of flood prone land (WAWA, DPUD).

### **Recommendation 64: Not Amended**

Undertake studies to prepare and update flood prone land maps and include all designated flood lands required for the proposed guidelines (WAWA).

#### **Submission Comments**

The comment was made that these studies should be done on a regular basis in response to ongoing catchment development.

PIMA considers that the recommendation adequately covers the comment as it recommends updating of these flood maps.

### **Water Transport**

#### **Recommendation 65: Not Amended**

Prepare flood plain management plans for the river system. These should consider factors such as flood behaviour, including risk and effects of future development, conservation of the natural environment, and planning issues (WAWA, DPUD, LGA, PIMA).

#### **Recommendation 66: Amended**

Improve facilities for boats and ferries by supporting the

- raising of the old traffic bridge which limits boat access; and
- provision of car parking, public toilets, and sewage pump out facilities (LGA, PIMA, DMH).

Where appropriate developers of waterside facilities should contribute to the cost of providing these facilities.

#### **Submission Comments**

The comment was made that particular reference should be made to the establishment of car parking, public toilets and sewage pump out facilities in existing developments at Waterside and Port Mandurah. It was also noted that this was a condition of these developments.

This comment has been recognised by PIMA and incorporated into the recommendation accordingly.

Concern was also expressed regarding raising of the Mandurah Traffic Bridge. It was suggested that this action would allow larger boats into the estuary and that the estuary is not in a fit state to accept those boats.

PIMA considers that raising of the Mandurah Traffic Bridge would assist public access to the estuary. The construction of the Dawesville Channel will allow access to much larger vessels into the estuary which will require adequate

access through areas such as the Mandurah Traffic Bridge.

#### **Recommendation 67: Not Amended**

Provide suitable sites for hire and drive operators at appropriate locations around the estuary (LGA, PIMA, DMH).

#### **Recommendation 68: Not Amended**

Ensure that proposals to develop new commercial boating facilities undergo proper investigations to avoid environmental problems and user conflicts (PIMA, EPA, DMH, LGA).

### **Living on Boats**

#### **Recommendation 69: Amended**

Ensure that all boats which contain living facilities include effluent holding tanks, bilge tanks and pump out fittings (DMH, PIMA).

#### **Submission Comments**

The comment was made that this recommendation should not only apply to hire boats and should also consider pollution from bilge tanks. The recommendation has been amended accordingly.

#### **Recommendation 70: Not Amended**

Ensure that effluent pump out facilities are included in the design of nominated marina facilities around the inlet (LGA, PIMA).

#### **Submission Comments**

One submission supported this recommendation.

#### **Recommendation 71: Not Amended**

Seek Cabinet approval to gazette a regulation limiting the residential use of boats (HD, WWC, PIMA).

#### **Submission Comments**

One submission supported this recommendation.

### **Planning for Climate Change**

#### **Recommendation 72: Not Amended**

Seek wider and more elevated areas of foreshore reserve to limit losses in the event of sea level rises (DPUD, LGA, PIMA).

#### **Recommendation 73: Not Amended**

Discourage the development of buildings and other permanent structures below 1.5 m AHD (WAWA, PIMA).

#### **Recommendation 74: Not Amended**

Ensure that all advice provided by PIMA relating to development proposals near the waterway contains a statement warning developers of the predictions of climatic change and sea level



rises (PIMA).

#### **Submission Comments**

The comment was made that a public education programme about climate change and its influence on the Peel Harvey catchment should be prepared and made available. This comment has been incorporated in recommendation 39 relating to public education accordingly.

### **Tourism**

#### **Provision of Tourist Facilities and Activities**

##### **Recommendation 75: Not Amended**

Limit foreshore tourist facilities to those providing direct services to tourists. Facilities providing support services to the tourist industry, e.g. administrative buildings, should be located away from the foreshore (DPUD, LGAs).

##### **Recommendation 76: Not Amended**

Identify areas where tourist developments may occur without loss of waterway environment (PIMA).

##### **Recommendation 77: Not Amended**

Prepare an information booklet and map detailing attractions of the waterway for tourist and visitors and advising of the need to protect the waterway environment (PIMA).

##### **Recommendation 78: Not Amended**

Encourage developers of tourist facilities to seek advice about waterways management issues before preparing development proposals.

##### **Recommendation 79: Amended**

Require tourist operations proposing to conduct tours near conservation areas to seek approval from the relevant authority. Any tourist operator working in conservation reserves must be licensed by the Department of Conservation and Land Management (PIMA).

#### **Submission Comments**

The comment was made that there should be a licensing system and the development of a policy with particular reference to zoning for avifauna reserves.

PIMA considers the protection of conservation areas of a high priority and therefore has amended the recommendation to include a licensing system for tourist operators.

#### **Additional Comments relating to Tourism**

One submission made the comment that bird watching as a tourist activity should be further encouraged as it has now become a leading tourist attraction throughout the world and is not dependent on season. It was suggested that

facilities be provided to promote this activity in conservation areas. Concern was also expressed in regard to the promotion of equestrian activities as a tourist attraction.

PIMA agrees with the potential of birdwatching as a major tourist attraction in the area. It does however recognise that development of facilities must be carefully planned so as not to impact on the natural environment. "The Need for Action" has thus been amended to strengthen the role of waterbird observation as a tourist activity.

### **Fishing**

##### **Recommendation 80: Not Amended**

Reduce the number of professional fishing units using the mechanisms outlined in the 'Need for Action', to a number which can operate viably on the waterway (DF).

##### **Recommendation 81: Not Amended**

Consider the waterway's capacity to sustain both professional and amateur fisheries when determining the "ideal" number of professional fishing units (DF).

##### **Recommendation 82: Not Amended**

Develop an education programme which emphasises the need for regulation and maintenance of habitats and breeding areas (PIMA, DF).

##### **Recommendation 83: Not Amended**

Continue research on (DF, PIMA)

- species taken by commercial and amateur fisherpeople; and
- the effects of changes to the waterway environment on fish and shell fish and their habitats.

#### **Submission Comments**

The comment was made that this recommendation should make reference to the research of a potential aquaculture industry based on the Peel - Harvey Estuary.

Private operators are currently carrying out this type of research for the Peel - Harvey Estuary and other estuaries in the State. Further research would be required to be carried out by the developer of any proposed industry. PIMA's role would be to advise on the impact of such an industry on the functioning of the estuarine system.

### **Recreation**

#### **Recreational Use and Facilities**

##### **Recommendation 84: Not Amended**

Identify areas where recreation reserves can be created or increased in area and upgraded to provide for existing and future demands (PIMA, DPUD, LGA, MSR).



### **Submission Comments**

One submission supported this recommendation.

### **Recommendation 85: Not Amended**

Improve water quality to encourage swimming and if appropriate create areas of deeper water suitable for swimming (PIMA, EPA, WWC, DPUD, MSR).

### **Recommendation 86: Not Amended**

Improve picnic area design to create better areas for relaxing and social interaction within small groups (LGA, MSR, PIMA ).

### **Submission Comments**

One submission supported this recommendation.

### **Recommendation 87: Not Amended**

Identify sites suitable for the development of recreation club activities ( LGA, WWC, PIMA, MSR).

### **Recommendation 88: Not Amended**

Monitor trends in recreational use and participation through surveys, observation and public consultation to determine requirements for future recreation (MSR, WWC, PIMA, LGA).

### **Recommendation 89: Not Amended**

Prepare a brochure which identifies recreational areas and facilities, and encourage the public to use those areas most suitable for particular activities (MSR, PIMA, LGA).

### **Recommendation 90: Not Amended**

Integrate hire and drive operations with other foreshore activities and provide facilities (toilets, parking, picnic facilities, seating and shade) to serve all foreshore users (LGA, PIMA, Dev, MSR).

### **Recommendation 91: Not Amended**

Identify areas which are suitable for hire and drive operations in foreshore management plans (PIMA, LGA, MSR).

### **Recommendation 92: Not Amended**

Identify areas which may be used by horse riders and prepare guidelines for their use (PIMA, LGAs, MSR).

### **Submission Comments**

One submission supported this recommendation.

### **Additional Comments relating to Recreation**

One submission made note of the Department of Sport and Recreation's change of name to the Ministry of Sport and Recreation and

recommended that they be further involved in initiating recommendations relating to recreational issues. The recommendations have been amended to reflect the name change and the MSR has been identified as the initiating agency for Recommendations 84, 88 and 89.

## **Navigation and Boating Safety**

### **Boating Safety and Facilities**

### **Recommendation 93: Not Amended**

Prepare a strategy for the systematic upgrading of existing boat ramps to enable their most efficient use (PIMA, LGAs, DMH).

### **Submission Comments**

One submission supported this recommendation subject to budgetary constraints.

It is considered that a strategy for the upgrading of boat ramps would need to address all issues of concern, one of which would be availability of funds.

### **Recommendation 94: Amended**

Undertake engineering and environmental investigations to identify the location of additional boat ramps which will reduce the congestion at existing facilities. Where appropriate developers of waterside land should contribute to the cost of providing boat ramps and associated facilities (DMH, PIMA, LGA).

### **Submission Comments**

The comment was made that planning for future boat ramp access should include provision of cost of installation of such boat ramps being met by developer.

PIMA recognises the difficulties in supplying funding for these facilities and identifies the need to consider funding by developers of waterside land. The recommendation has been amended accordingly. The need for action has also been amended to include consideration of the 'user pays' system for boat ramps.

### **Recommendation 95: Not Amended**

Support the enforcement of WA Marine Regulations relating to boating safety (PIMA, DMH).

### **Recommendation 96: Not Amended**

Consider the establishment of special use areas having regard for (DMH, PIMA, DPUD):

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





#### **Recommendation 97: Not Amended**

Extend the existing mechanism so that navigable waters may be closed for conservation and maintenance objectives as well as for safety reasons (DMH, PIMA, CALM).

#### **Recommendation 98: Not Amended**

Encourage and expand the recently introduced voluntary training programmes for boating operators (DMH).

#### **Recommendation 99: Not Amended**

Ensure installation of fire fighting equipment at all major jetties (DMH).

### **Management**

#### **Coordination**

#### **Recommendation 100: Not Amended**

Prepare and implement procedures for referral and consideration of development proposals so that the interests of all relevant agencies are considered (DPUD, PIMA, all relevant authorities).

#### **Recommendation 101: Not Amended**

Prepare and implement procedures for the referral and consideration of all land use management plans and town planning schemes so that they may be considered by relevant authorities before adoption (DPUD, PIMA, all relevant authorities).

### **Emergency Procedures**

#### **Recommendation 102: Not Amended**

Amend the CPDOSPHA so that its format is similar to DEMP (PIMA, WWC).

#### **Recommendation 103: Not Amended**

Acquire the equipment recommended in the DEMP and store in an appropriate manner (PIMA, WWC, Treasury).

#### **Recommendation 104: Not Amended**

Ensure that all PIMA staff are familiar with emergency procedures and are trained in the use of the equipment ( PIMA).

#### **Recommendation 105: Not Amended**

Amend CPDOSPHA to reflect the requirement to react to emergencies throughout the entire catchment (PIMA, WWC).

#### **Recommendation 106: Not Amended**

Ensure that all Waterways Commission staff are familiar with DOSHWA procedures for handling dangerous materials (WWC, PIMA, DOSHWA).

## **Amendments to Chapter 6: Area Recommendations**

The following section outlines the changes made to the Area Recommendations in response to submissions received. Only those recommendations for which comment was received have been listed. All other recommendations have not been amended.

### **Map 1: Recommendations A1 -A28**

#### **Recommendation A7: Amended**

Support the maintenance of a permanently navigable entrance channel to the Peel Inlet and provide a permanent sand by-pass system (DMH, PIMA, CM).

#### **Submission Comments**

The comment was made that a permanent bypass pump should be considered for the maintenance of the entrance channel. PIMA considers that this sort of proposal to reduce maintenance requirements for the channel is worthy of consideration. The recommendation has been amended accordingly.

#### **Recommendation A 24: Amended**

Consider the appropriate location and source of funding for a walking trail when preparing a detailed management programme plan for this area (CALM).

#### **Submission Comments**

The comment was made that the location of the walk trail and the source of funding to erect such a trail was not indicated.

It is considered that it would be appropriate to erect a walk trial in the area. A management plan for the area will determine its location and source of funding. The recommendation has been amended to reflect this.

#### **Recommendation A26: Not Amended**

Construct a fence and firebreak between development and proposed conservation reserve as a condition of subdivision (Dev, CALM, CM).

#### **Submission Comments**

The comment was made that the location of the fence and firebreak were not indicated on the map.

At the time of preparation of the management programme the location of the fence and firebreak had not been determined. The location would need to be negotiated with the developer in the future.



### **Additional Comments relating to Map 1**

One submission made the comment that sufficient resources should be available to implement the maintenance requirements for the ocean entrance and channel.

PIMA considers that funds from leases of the Mandurah Ocean Marina should be used to fund the maintenance of the ocean entrance and channel.

### **Map 2: Recommendations A29 - A51**

#### **Recommendation A30: Amended**

Undertake environmental, engineering and costing investigations associated with possible dredging and filling near the Novara foreshore to extend foreshore reserve as shown. Where appropriate private developers should be encouraged to contribute to the cost of these developments ( PIMA, CM, DMH, SWDA).

#### **Submission Comments**

A number of submissions expressed concern regarding the suitability and resulting environmental impact of the dredging proposal. Since release of the draft report the dredging of this area has been subject to environmental impact assessment by the Environmental Protection Authority and approval has been recommended subject to environmental conditions. PIMA considers this adequate consideration of environmental impact.

The comment was also made that it should be recommended that developers fund works and a commitment to this funding be incorporated in any application for a proposed development. PIMA recognises the difficulties with funding these sorts of proposals and has amended the recommendation accordingly.

#### **Recommendation A36: Amended**

Undertake environmental, engineering and costing investigations associated with dredging and filling near Olive Road and Point Ward to extend foreshore reserve. Where appropriate private developers should be encouraged to contribute to the cost of these developments ( PIMA, DMH).

#### **Submission Comments**

As for Recommendation A30.

#### **Recommendation A42: Amended**

Create a foreshore area as shown using spoil from construction of the proposed Dawesville Channel. The design of this work should ensure that it does not reduce the water exchange through the Channel ( DMH).

### **Submission Comments**

The comment was made that this proposal may impede the flushing capacity of the Dawesville Channel. The recommendation has been amended to reflect this comment.

#### **Recommendation A43: Amended**

Modify spoil disposal proposals shown on Figure 6.2 of the ERMP - Stage 2 to increase the width of the foreshore area in reserve A 2851. The design of this work should ensure that it does not reduce the water exchange through the Channel. Where appropriate private developers should be encouraged to contribute to the cost of these developments ( DMH, PIMA).

#### **Submission Comments**

As for Recommendations A30 and A42.

#### **Recommendation A44: Amended**

Dredge outward from proposed Dawesville Channel to the 1.5 m bathymetric contour to accommodate access to and from the Channel. Where appropriate private developers should be encouraged to contribute to the cost of these developments ( DMH, PIMA).

#### **Submission Comments**

As for Recommendation A30.

#### **Recommendation A45: Amended**

Incorporate foreshore areas created by filling during construction of the Dawesville Channel into the reserve 28349 and prepare management plan for the entire area which provides adequate parking for cars and boat trailers ( DOLA, CM, DMH, PIMA).

#### **Submission Comments**

A submission made the comment that increasing recreational pressure in the vicinity of the Dawesville Channel will be oriented towards fishing and crabbing which will require further car and trailer parking facilities. PIMA recognises this need and has amended the recommendation accordingly.

### **Map 5: Recommendations A72 - A79**

#### **Recommendation A75: Not Amended**

Prepare a management plan for reserve 2990 to address issues of recreation, camping and foreshore management ( CM, PIMA).

#### **Submission Comments**

The comment was made that reserve 2990 should not be totally allocated to recreation. A small section at Island Point should be set aside for this purpose and the remainder added to reserve 23756 (Harvey Estuary Nature Reserve) for conservation and vested in the NPNCA.

PIMA recognises that reserve 2290 has recreational value and conservational value. It is considered that the issues of appropriate



purpose of vesting and a rationalisation of reserve boundaries to take account of its conservation values will be addressed in the proposed management plan.

**Recommendation A77: Amended**

If boating pressure increases significantly undertake the environmental, economic and engineering investigations required to determine the feasibility of dredging a channel from the beach to deeper water and use the spoil to renourish the adjoining beach (DMH, PIMA).

**Submission Comments**

The comment was made that beach establishment and channel development need justification and may not be appropriate.

PIMA recognises the need to justify further dredging for boating use. Studies will however be carried out prior to any work being undertaken to determine the overall need for such a facility and the suitability as far as environmental impact is concerned.

**Map 6: Recommendations A80 - A85**

**Recommendation A81: Amended**

Create an Estuarine Marine Park south of a line between Island Point and Herron Point. Incorporate all of Harvey Estuary south of this line into the reserve. Vest the reserve in NPNCA. CALM to prepare a management programme (DOLA, NPNCA, CALM).

**Submission Comments**

The comment was made that this type of conservation park should be referred to as an Estuarine Marine Park to distinguish it from Marine Parks already established in marine waters.

The recommendation has been amended accordingly.

A further comment questioned the availability of management and supervisory resources for such an estuarine marine park.

PIMA considers that consultation with CALM and all other relevant agencies would need to be undertaken prior to the park's establishment to determine the level of management required and the resources available.

**Recommendation A83: Amended**

Carry out flood mitigation studies to minimise the effects of flooding along the Harvey River (WAWA, PIMA, CALM).

**Submission Comments**

The comment was made that it was not CALM's role to be involved in such studies except for limited ecological advice.

The recommendation has been amended to reflect this comment.

**Recommendation A84: Not Amended**

Rationalise boundaries of reserve 13987 to provide for existing activities including peat mining and camping and to protect wetland areas (DOLA, SM, PIMA).

**Recommendation A85: Not Amended**

Implement General Recommendations 23, 26, 51 relating to the Waterways Protection, Bank Revegetation and Public Access Precincts, respectively (PIMA, WWC).

**Map 7: Recommendations A86 - A90**

**Recommendation A86: Amended**

Carry out flood mitigation studies to minimise the effects of flooding along the Harvey River (WAWA, PIMA, CALM).

**Submission Comments**

As for Recommendation A83.

**Recommendation A87: Not Amended**

Rationalise boundaries of reserves 12408 and 23172 to meet the needs of the WACA for peat (DPUD, DOLA, WACA).

**Submission Comments**

The comment was made that the use of the reserve for peat is questionable. The recommendation has not been amended as consultation with the Shire of Harvey and the Western Australian Cricket Association has identified that the reserve contains the only source of peat in the area. It has also been identified that the WACA is currently removing peat from Reserve 12408 and wishes to continue to do so under conditions imposed on a licence.

**Map 8: Recommendations A 91 - A 98**

**Recommendation A92: Amended**

Consider A Class status for reserve 23756 and prepare and implement a management plan. Manage in accordance with CALM Interim Guidelines in the short term (DOLA, CALM).

**Submission Comments**

The comment was made that the existing flora and fauna reserve be given a higher status of protection to ensure land cannot be excised from it in the future.

The recommendation has been amended accordingly.

**Recommendation A94: Not Amended**

Incorporate part of reserve 23756 into reserve 31922 to enable a more intensive development of recreational facilities, including a properly constructed boat launching ramp and dredged channel (DOLA, NPNCA, CALM, SM).



### **Submission Comments**

The comment was made that liaison was required to determine the most suitable boundary for the recreation reserve and boating facilities.

A further submission commented that this area is an important area for waterbirds which is backed by a quite narrow strip of coastal Flora and Fauna Reserve.

PIMA recognises the conflict that may arise between recreational activities and the nearby conservation reserve and the consequent need for careful siting of such facilities. The original proposed location of the dredged channel has been amended to reflect these comments and PIMA will ensure adequate consideration of these issues when the final site for the channel is determined. It is considered that consultation and liaison with the relevant authorities will be required during this process.

### **Recommendation A97: Amended**

Create a reserve from Vacant Crown Land and vest in the WWC on an interim basis in accordance with Section 5.3.5 of this document. PIMA to prepare a management programme which considers the development of adequate boat launching facilities (DOLA, WWC, PIMA, SM).

### **Submission Comments**

The comment was made that as the Vacant Crown Land is to be within the Peel-Harvey Regional Park area the most appropriate vesting until the Peel-Harvey Regional Park is established would be the Waterways Commission. The recommendation has been amended accordingly

## **Map 9: Recommendations A99 - A108**

### **Recommendation A101 : Not Amended**

Prepare and implement a management programme for Lake McLarty (CALM, PIMA, SM).

### **Submission Comments**

See comments for Recommendation A104.

### **Recommendation A104: Added**

Add Lake Mealup to CALM's land purchase priority list (CALM, DPUD, NPNCA, DOLA, PIMA, SM).

Note: The original recommendation A104 has already been implemented and so has been deleted and replaced.

### **Submission Comments**

The comment was made that the road reserve mentioned in the original recommendation had already been incorporated into reserve 24739 and vested in the NPNCA. The original recommendation has therefore been deleted. A

further comment relating to recommendation A101 recommended that Lake Mealup should be purchased and vested in the NPNCA. PIMA supports this idea and has added the recommendation accordingly.

## **Map10: Recommendations A109 - A123**

### **Recommendation A110: Not Amended**

Vest reserve 27528 in NPNCA. CALM to prepare and implement a management plan (DOLA, NPNCA, CALM).

### **Submission Comments**

One submission gave support for the recommendation, however indicated that access to the reserve will be required for CALM management activities.

PIMA recognises this need and will recommend that this is addressed in the proposed management plan.

### **Recommendation A112: Amended**

If Point Grey is developed for residential use at some time in the future undertake environmental and engineering costing investigations associated with dredging an access channel to the foreshore south of Point Grey (PIMA, DMH, SM).

### **Submission Comments**

The comment was made that this proposal may be premature and unfavourable unless it is found to be environmentally acceptable.

Another submission pointed out that this area is the nursery area for a range of organisms and that this recommendation may not be appropriate.

PIMA recognises the environmentally sensitive nature of the area and will recommend that the essential environmental investigations and approvals are carried out prior to any dredging taking place. It must also be noted that PIMA considers the proposal at Point Grey to be a long term planning proposal which will require extensive investigation prior to implementation. The recommendation has been amended to reflect the long term nature of the proposal.

### **Recommendation A113: Amended**

If Point Grey is developed for residential use at some time in the future use dredge spoil to expand foreshore area as shown. Incorporate this newly created foreshore area into the reserve created in Recommendation A109 (DMH, PIMA, DOLA, DPUD, SM).

### **Submission Comments**

As for Recommendation A112.



#### **Recommendation A117: Amended**

If Point Grey is developed for residential use at some time in the future undertake environmental and engineering costing investigations associated with dredging an access channel to the foreshore east of Point Grey (PIMA, DMH).

#### **Submission Comments**

As for Recommendation A112.

#### **Recommendation A 118: Amended**

If Point Grey is developed for residential use at some time in the future use dredge spoil to expand foreshore area as shown. Incorporate this newly created foreshore area into reserve created in Recommendation A119 (DMH, PIMA, DOLA, DPUD, SM).

#### **Submission Comments**

As for Recommendation A112.

#### **Map 11: Recommendations A124 - A130**

#### **Recommendation A124: Amended**

Incorporate adjoining Vacant Crown Land and reserve 7502 into the Nature Reserve 2707 and vest in NPNCA (DOLA, SM, NPNCA, CALM).

#### **Submission Comments**

The comment was made that reserve 7502 for water purposes should be incorporated into the Lake Mealup/Lake McLarty wetland reserve and vested in the NPNCA. The recommendation has been amended accordingly.

#### **Recommendation A125: Amended**

Incorporate foreshore reserve into Nature Reserve 2707 vested in NPNCA. CALM to prepare a management programme (DOLA, NPNCA, CALM, SM).

#### **Submission Comments**

The comment was made that this foreshore reserve should be incorporated into Nature Reserve 2707.

The recommendation has been amended accordingly.

#### **Map 12: Recommendations A131 - A136**

#### **Recommendation A133: Not Amended**

Acquire freehold land to be incorporated into the nature reserves as a condition of future rezoning or subdivision (DPUD, PIMA, SM).

#### **Submission Comments**

The comment was made that all freehold land within the waterways protection precinct in the Austin Bay area should be incorporated into the Austin Bay Nature Reserve 28087.

PIMA recognises the desirability of incorporating freehold land into nature reserves immediately but realises that freehold land cannot be incorporated in the nature reserve

unless acquired through the subdivision or rezoning process. The recommendation already reflects this difficulty.

#### **Map 13: Recommendations A137 - A149**

#### **Recommendation A137: Amended**

Undertake environmental engineering investigations associated with the ongoing dredging of the Yunderup Canals entrance channel (SM, PIMA, DMH). Disposal site options include:

- pumping to the south of the bund wall on Wellya Pool;
- removal from the immediate vicinity to a disposal site to be determined;
- other options may be considered.

#### **Submission Comments**

The comment was made that no further development in the lagoon or in the river delta region should be permitted and all dredge spoil islands should be retained with bund walls. Another submission made the comment that the recommendation incorrectly referred to the Yunderup Canal instead of the Yunderup Canals Entrance Channel. A further comment thought that the recommendation may be seen to imply that the three disposal sites for dredge spoil originally mentioned are the only option available.

The recommendation has been amended to take account of Wellya Pool and bunding of dredge spoil and to allow consideration of other dredge spoil disposal sites.

A further submission expressed concern regarding the loss of views from Yunderup Canals if the proposed dredge spoil sites were used. The planning considerations have been amended to take consideration of this comment.

#### **Recommendation A139: Amended**

During Peel-Harvey Regional Park investigations assess the environment of reserve A20215 to determine if it is suitable for national park purposes (DOLA, SM, NPNCA, CALM).

#### **Submission Comments**

The comment was made that the appropriateness of reserve A20215 as a National Park should be investigated. The recommendation has been amended accordingly. A further comment was made that all unoccupied delta islands be allocated a higher protection status.

PIMA considers the future vesting of all Crown land on the Delta Islands should be assessed during the Peel-Harvey Regional Park planning process.



#### **Recommendation A140: Not Amended**

Undertake environmental engineering investigations associated with dredging the river entrances (PIMA, DMH, SM). Spoil disposal site options for consideration include:

- pumping to the foreshore at Coodanup to extend the foreshore reserve;
- pumping to the estuary to create an artificial island;
- pumping to private property in the river delta to create a flood free development site.

#### **Submission Comments**

One submission suggested a recommendation to dredge to the east of Jennala Island connecting the Wargoorloop Branch of the Murray River to the Serpentine River, given that the dredging of the proposed channel to Coopers Mill from the estuary proceeds. It was suggested that this channel would give easy access to Coopers Mill from the Serpentine River.

Another submission indicated that the shallow water north west of Cooper's Mill is an important feeding and roosting area for a large number of water and wading birds.

PIMA considers that prior to this recommendation being implemented detailed environmental investigations will be undertaken to determine the environmental impact and to evaluate all possible spoil disposal sites.

#### **Recommendation A141: Not Amended**

Prepare and implement a management programme for the ongoing protection of the salt lake (PIMA, SM).

#### **Submission Comments**

One submission supported this recommendation because the lake is a recognised proven feeding ground for trans migratory waders.

#### **Recommendation: A145: Added**

Undertake investigations to determine a site for a boating facility in the Yunderup district (PIMA, WWC).

Note: The original Recommendation 145 has been deleted as it was considered that the issue of nutrient control was adequately covered in the General Recommendations.

#### **Submission Comments**

The comment was made that there was a need for the document to reflect the need for a marina to be developed on the east side of the estuary. PIMA agrees that investigations into a boating facility in this area should be undertaken.

#### **Recommendation A149: Added**

Prepare and implement a management plan for reserve 38749 (CALM).

Note: The original recommendation A149 has

been deleted as it was considered that the issue of acquiring foreshore reserves at subdivision is adequately covered in the General Recommendations.

#### **Submission Comments**

The comment was made that reserve 38749 was not mentioned in the reserves list or in the recommendations. The list has been amended and a recommendation added accordingly.

### **Map 14: Recommendations A150 - A163**

#### **Recommendation A152: Amended**

Prepare detailed management plans for the Serpentine and Murray river systems to address issues of conservation, flood management, navigation, erosion control and recreational use (PIMA, CM, SM).

#### **Submission Comments**

One submission commented that there was a need for separate and more positive management plans for the Serpentine and Murray river systems.

The recommendation has been amended accordingly.

#### **Recommendation A154: Amended**

Undertake environmental and engineering costing investigations associated with dredging an access channel to Beacham Road. Use any dredge spoil to renourish Coodanup Beach (PIMA, DMH, CM).

#### **Submission Comments**

The comment was made that a channel is needed to provide access from the Beacham Road area to deep water and that a foreshore area in the vicinity of the Coodanup Foreshore could be created by using the dredge spoil from the channel.

The recommendation has been amended to incorporate the use of the dredge spoil to renourish Coodanup Beach.

#### **Additional Comments relating to Map 14**

One submission expressed concern regarding the siting of the Waterways Protection Precinct south of the Mandurah Bypass Road and north of Creery Island. Another supported the proposal.

PIMA recognises that canal developments have been proposed for this land. PIMA and the WWC believe that the position of the Waterways Protection Precinct is appropriate. Canal developments in this area are not consistent with the Environmental Protection Authority's Coastal Plain Wetland Policy.



## Map 15: Recommendations A164 - A170

### Recommendation A167: Amended

Create a reserve for nature reserve purposes and vest in NPNCA. Prepare and implement a management plan (DOLA, CALM).

#### Submission Comments

The comment was made that the perception currently is that CALM will assume responsibility for the area mentioned in the recommendation. The recommendation has been amended accordingly.

## Map 17: Recommendations A185 - A191

### Recommendation A185: Amended

Vest reserve 34502 in WWC for foreshore management. PIMA to prepare and implement a management plan for reserves 34502 and 40109 to ensure public access along the foreshore, appropriate revegetation and management of the river banks (DOLA, WWC, PIMA).

#### Submission Comments

A number of submissions expressed concern regarding management of reserve 40109. One major issue raised was the suitability of public access to the reserve.

PIMA considers that maintaining the public's right of access to the waterways is an essential part of foreshore and waterway management. A change in policy since the 1982 Management Programme now means PIMA encourages the acquisition of foreshore reserves and promotes public access except when environmental damage may occur.

The recommendation has been amended to recognise the preparation of a management plan for reserve 40109. PIMA will ensure that the management plan addresses all issues of concern to the reserve and determine the suitability of providing public access. PIMA will also ensure that management is undertaken after consultation with the public.

### Recommendation A187: Not Amended

Prepare and implement a management plan to address the recreation and conservation issues pertaining to the erosion of the river bank and to the resolution of the usage of the foreshore reserves (PIMA, MSR, SM).

#### Submission Comments

The comment was made that special use areas should be identified for activities such as boating, swimming, canoeing, passive aquatic recreation, scientific study, education and conservation.

PIMA will ensure that the management plan proposed addresses issues mentioned and will involve wide public consultation to determine the activities required and the areas most suitable.

## Appendix 1

### List of Submissions Received

#### A. State Government Agencies

- Environmental Protection Authority
- Department of Conservation and Land Management
- Department of Planning and Urban Development
- Health Department of Western Australia
- Ministry of Sport and Recreation
- Department of Aboriginal Sites, Western Australian Museum

#### B. Local Government Authorities

- City of Mandurah
- Shire of Murray
- Shire of Harvey

#### C. Commercial or Developmental

- Biomet (Australia) Pty Ltd
- Port Mandurah
- John Holland Constructions Pty Ltd

#### D. Environmental Groups

- Peel Preservation Group
- WA Naturalists Club (Inc.)
- The Ravenswood Society
- Murray Mandurah Horse Owners Association
- Reserve 40109 Preservation Society (Inc.)

#### E. Individuals

- George Halpin
- John Mahony
- R.A. Adam
- L. & R. Kuchan
- Otto Mueller
- J.B. Horner
- P.D. Wilmot
- R.L. Glasson
- B.E. & J.E. Thomason

ISBN 0 - 7309 - 4669 - X