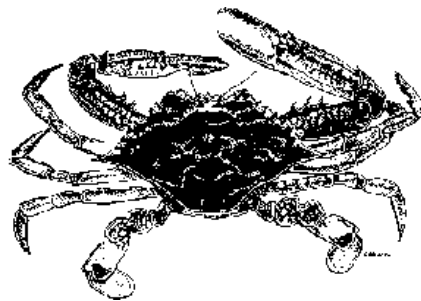


MANAGEMENT OF THE PROPOSED GEOGRAPHE BAY BLUE SWIMMER AND SAND CRAB MANAGED FISHERY



A management discussion paper

By Jane Borg and Cathy Campbell

FISHERIES MANAGEMENT PAPER NO. 170

Department of Fisheries
168 St. George's Terrace
Perth WA 6000

August 2003

ISSN 0819-4327



Management of the Proposed
Geographe Bay Blue Swimmer and Sand Crab
Managed Fishery

August 2003

Fisheries Management Paper No. 170
ISSN 0819-4327



CONTENTS

OPPORTUNITY TO COMMENT	5
EXECUTIVE SUMMARY	7
SECTION 1 INTRODUCTION	11
SECTION 2 THE CRAB RESOURCE.....	13
2.1 Blue swimmer crab (<i>Portunus pelagicus</i>)	13
2.2 Sand crabs (<i>Ovalipes australiensis</i>)	13
SECTION 3 EXISTING MANAGEMENT ARRANGEMENTS	15
3.1 The Legislative Environment	15
3.2 The Commercial Fishery	15
3.3 The Recreational Fishery	17
SECTION 4 BACKGROUND TO THE MEDIATION PROCESS	21
4.1 What are the Voluntary Resource Sharing Guidelines?	21
4.2 A move towards a mediated settlement	21
SECTION 5 THE AGREED ARRANGEMENTS	23
5.1 Objectives	23
5.2 Overview of the key elements of the Agreed Arrangements.....	23
5.2.2 Benefits to the local tourism industry.....	23
5.2.3 Benefits to Government.....	24
SECTION 6 PROPOSED MANAGEMENT ARRANGEMENTS FOR COMMERCIAL CRAB FISHING	25
6.1 Commercial Fishing	25
6.1.1 Citation	25
6.1.2 Definitions & Interpretation	26
6.1.3 Area Of The Fishery	26
6.1.4 Authorised Fishing	27
6.1.5 Fishing For Crabs	27
6.1.6 Minimum Size of Crabs.....	27
6.1.7 Permitted Gear in the Commercial Fishery	28
6.1.8 Operation of traps in the Commercial Fishery	29
6.1.9 Trap Entitlement and Number Of Traps in the Fishery	29
6.1.10 Closures Within The Fishery.....	30
6.1.11 Criteria For Grant of a Managed Fishery Licence.....	31
6.1.12 Authority and Duration of Managed Fishery Licences	31
6.1.13 Fit and Proper Person	32
6.1.14 Licence Details	32
6.1.15 Adjustment of units in the fishery	32
6.1.16 Criteria For The Transfer of a Managed Fishery Licence	33
6.1.17 Grounds to Refuse a Transfer of a Managed Fishery Licence	33
6.1.18 Grounds for the Cancellation of a Managed Fishery Licence	33
6.1.19 Licensee or Nominated Operator to Control Operations within the Fishery	34
6.1.20 Returns.....	34
6.1.21 Exemption for Combined Operations.....	35
6.1.22 Use of Vehicles.....	35
6.1.23 Fees	36
6.1.24 Procedure Before Arrangement is Amended or Revoked	36
6.1.25 Revocation	36
6.1.26 Offences and Major Provisions	37

6.2	Recreational Fishing	37
6.2.1	Existing Management Arrangements	37
6.2.2	Closures within the Fishery	37
SECTION 7	REFERENCES	39
APPENDIX 1	41
	Voluntary Guidelines for Resource Sharing process.....	41
	What is negotiation?	41
	What is mediation?	42
	Conditions of mediation	42
APPENDIX 2	THE AGREEMENT TO SETTLE.....	45
APPENDIX 3	MEMBERS OF MEDIATION GROUP	51
APPENDIX 4:	KEY ELEMENTS OF THE PROPOSED MANAGEMENT ARRANGEMENTS FOR COMMERCIAL AND RECREATIONAL CRAB FISHING IN GEOGRAPHE BAY	53

OPPORTUNITY TO COMMENT

This discussion paper has been prepared following an extensive consultation process, to encourage continued public involvement in the development of management arrangements for the blue swimmer and sand crab resources of Geographe Bay. These proposed management arrangements affect both commercial and recreational fishers.

Comments about this discussion paper are sought from all stakeholders, including commercial and recreational industry members, relevant community interest groups, government agencies and interested members of the public.

Following consideration of the public comments received on this discussion paper, the management arrangements will be reassessed and submitted to the Minister for final approval, prior to implementation.

To ensure your submission is as effective as possible, you may wish to consider:

1. Making your submission clear and concise.
2. Listing and referencing your comments according to the numbered topic sections and page numbers in this paper.
3. Describing briefly each topic or issue on which you wish to comment.
4. State whether you agree, or disagree, with any or all of the information within each topic section, or just those of specific interest to you. Clearly state your reasons, particularly if you disagree with a topic, and give sources of information in support of your comments where possible.
5. Suggest alternative solutions, where possible, to address any issues where you disagree with the suggested solution.

This paper has been prepared by the Department of Fisheries after substantial community consultation and utilization of the mediation process set out within the *Voluntary Guidelines for Resource Sharing*. This process involved commercial and recreational fishers, staff of state and local government agencies, and members of the public.

Your comments would be appreciated by 30 November 2003 and should be marked to the attention of Mr Jason Froud, Commercial Fisheries Management Officer, and addressed to:

Executive Director
Albany District Office
Department of Fisheries
Suite 7, Frederick House
70-74 Frederick Street
ALBANY 6330

Alternatively, you may e-mail your comments to Mr Froud at: jfroud@fish.wa.gov.au.

EXECUTIVE SUMMARY

The appeal of Geographe Bay, both as a place to live and a place to holiday, is well known and this appeal has increased significantly in recent years. One of the most popular pastimes for both locals and tourists of Geographe Bay is fishing for crabs. This same crab resource also supports a small but viable commercial fishery.

The Geographe Bay crab fishery is relatively unique in WA in that it is most productive during the winter months and the vast majority of the catch is taken from a narrow band within 200 metres of shore.

In recent years, issues associated with commercial and recreational crab fishing have generated considerable debate in the communities adjacent to Geographe Bay, particularly in the Busselton area.

Much of the debate between user groups is due to the perception that commercial fishers take a large part of the crab resource, leaving little for the recreational fishers and the many tourists who visit Busselton, especially during holiday periods. (In reality, a 2002 survey conducted by the Department of Fisheries' Research Division, indicated that recreational catch is higher than the recorded commercial catch: 28.6 tonnes by recreational fishers compared with 14.9 tonnes by commercial fishers.)

All licensed commercial fishers in Western Australia are currently permitted to set drop nets in the waters of Geographe Bay. If a commercial fisher operates from a boat, that boat must be attached to a fishing boat licence.

Under current arrangements, there is no limit on the number of commercial fishing boats that can be used to fish for crabs in Geographe Bay, nor has the Department of Fisheries imposed a limit on the number of drop nets that can be used. Over the past ten years, twelve licensees have a demonstrated history of using drop nets in the bay.

In 1996, the Minister for Fisheries responded to local concerns about crab catch shares between the commercial and recreational crab fishing sector by instigating a review of crab fishing in Western Australia. The review resulted in the release of a management options paper in September 1997.

After a process of community consultation throughout 1998, temporary management arrangements for the commercial crab fishing sector in Geographe Bay were introduced in May 1999. However, these arrangements were unsatisfactory to some members of the public and the commercial fishing sector.

Subsequently, there was further discussion between the Department of Fisheries, Shire of Busselton, Western Australian Fishing Industry Council, the Recreational Fishing Advisory Committee and Recfishwest to consider a process for managing the differences of opinion. After these parties agreed that the way forward was through the *Guidelines for Voluntary Resource Sharing* process, the Minister supported their view and the *Guidelines* process for crab fishing in Geographe Bay was implemented.

The process allowed those involved in the crab resource sharing debate to come together in a neutral setting, and with an independent mediator, develop a framework that satisfied the needs of each sector. The Geographe Bay crab mediation group met for the first time in May 2000 and signed off on a settlement agreement in December 2002.

This paper presents the proposed management arrangements agreed to by the mediation group. By signing off on the agreement, all those in the mediation group showed their support for the outcomes they produced.

The agreed arrangements were the product of vigorous debate but with a clear objective to maintain a small, viable commercial fishery, with interactions with recreational fishers managed as closely as possible. The mediation group believes that these proposals represent a reasonable compromise, but recognise that these proposals will not be universally supported and these proposals are by no means final. The general public now has an opportunity to comment on their suitability.

Comments received during the public consultation process will assist the Minister to make a decision about the future management of crab fishing in Geographe Bay.

The key main elements of the proposed management arrangements are:

Commercial Sector

Species: Blue swimmer crabs and sand crabs
Minimum Size: 128 mm
Gear: Crab traps only

Management:

- Maximum of 320 crab traps in fishery
- Trap numbers to be reviewed in five years
- Tradable licences
- Licence holder does not have to be on boat but a nominated operator must be on board
- Minimum fishable trap holding of eight traps
- Holdings of less than eight traps must be adjusted to minimum fishable trap holding after two years of the plan being in place

Temporal Closures:

No fishing –

- Two hours before sunset on a Friday and two hours before sunset on Sunday (or Monday if a long weekend)
- In the month of October
- In school holidays, except the mid year (July) holidays
- During November to April inclusive in any given year

Spatial closures:

No fishing –

- In waters less than 400 metres offshore between “old Dunsborough” boat ramp and the Quindalup boat ramp
- In waters less than 400 metres offshore between Dolphin Road (Busselton) and the Port Geographe marina
- In waters within 800 metres of the Busselton jetty
- In the Port Geographe Marina and between the groynes

Research obligations: Required to complete Research Logbooks

Recreational Sector

<i>Species:</i>	Blue swimmer crabs and sand crabs
<i>Minimum size:</i>	127 mm
<i>Temporal closures:</i>	No crab fishing in the month of October
<i>Spatial closures:</i>	No boat fishing for crabs in the Port Geographe Marina and between the groynes

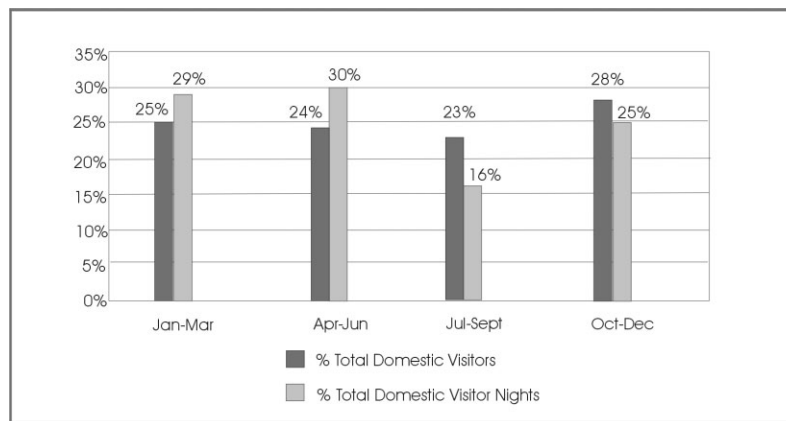
SECTION 1 INTRODUCTION

Geographe Bay is a small embayment in south-west Western Australia, covering an area of about 290 square nautical miles. (See Figure 1). The majority of the population resides in Busselton, a town of 23,337 (2001) with an estimated growth rate of 5.1 per cent per annum (South West Development Commission, 2003).

Each year, over 300,000 tourists visit Busselton, with the busiest visitation time for the surrounding south-west region being January to June (WA Tourism Commission, 2001). This period includes school holidays, Easter and the Foundation Day long weekend.

The period of October to December has only slightly less visitors than the peak period. The third 'quarter' of the year is the period of lowest visitation (see Figure 1).

Figure 1: Visitation to Southwest Western Australia



Source: Bureau of Tourism Research (NVS, 2001)

The crab resource in Geographe Bay is a significant natural feature that contributes to the attraction of the southwest region and hence to tourism expenditure. The primary recreational crab fishers are local residents, along with, to a lesser extent, tourists in school holidays.

There are a small number of commercial fishers - around 12 - operating in Geographe Bay who record crab as part of their annual catch. About half of the 12 fishers would consider themselves as genuine crab fishers and take a large share of the commercial catch.

The commercial crab fishing season in Geographe Bay commences when crabs move into the area. The timing of this event can vary due to environmental conditions, but generally occurs in early winter (i.e. May), with fishing historically concluding around November.

This commercial fishing activity, which coincides with the period of relatively low visitor influx, is closely followed by the Christmas school holidays when tourists arrive in numbers and like to try their hand at crab fishing. If the crabs being caught are under legal size (i.e. too small for taking home) or their numbers seem down, this is sometimes regarded by local residents to be the result of commercial fishing operations.

In 1996, the Minister for Fisheries announced a review of the inshore crab fisheries in Western Australia due largely to ongoing community concern about the perceived impacts of commercial crab fishing and the relative catch shares between the commercial and recreational crab fishing sectors. The review included a close examination of the issues concerning recreational and commercial crab fishing in Geographe Bay.

A discussion paper (Fisheries Management Paper No. 108) was released in September 1997, outlining the issues and management options for the State's inshore crab. A review committee, comprising major stakeholder groups, was established to review submissions and make recommendations to the Minister. A summary of the submissions was also published (Fisheries Management Paper No. 112).

In August 1998, public comment was invited on a proposal for management of the commercial crab fishery in Geographe Bay. Following the Minister's consideration of public feedback, management measures were implemented on 24 May 1999, through legislation (section 43 Order). This order prohibited commercial fishing for crabs in Geographe Bay on weekends, public holidays, school holidays (other than that at the end of term two), and on any other day one hour after sunrise to one hour before sunset.

The section 43 Order also prohibited fishing for crab at any time within a scheduled area covering the Busselton Jetty and its surrounding area. However, it was intended that these arrangements to constrain the operations of the commercial sector would be temporary only, and that further public discussion was required to resolve all the issues inherent in the fishery.

The settlement agreement which is now presented as a proposal for the management of commercial and recreational crab fishing in Geographe Bay is designed to encourage that discussion.

In reaching the settlement agreement, the mediation group considered relevant commercial and recreational catch data that was available at the time. Up-to date data on commercial crab fishing was readily available because commercial fishers submit monthly catch returns. However, the source of recreational fishing data relied on survey data, of which the most recent data available was collected in 1997.

SECTION 2 THE CRAB RESOURCE

A succinct summary of the biology of the blue swimmer crab and sand crab can be found in *Issues affecting Western Australia's inshore crab fishery* (Fisheries Management Paper No. 108 - Campbell, 1997). A description of the factors affecting blue swimmer crab distribution can be found in *Synopsis of the biology and exploitation of the blue swimmer crab Portunus pelagicus* (Fisheries Research Report No. 112 - Kangas, 2000).

The recreational and commercial catches for blue swimmer crab fisheries in the south west of Western Australia, including Geographe Bay, were reported in the Fisheries Research and Development Corporation (FRDC) report '*Estimating the recreational catch of blue swimmer crabs in the south west of Western Australia*' (Sumner *et al*, 2000). The following descriptions (Campbell, 1997) are provided to assist in distinguishing the two species to be covered by the plan.

2.1 Blue swimmer crab (*Portunis pelagicus*)

Blue swimmer crabs (*P. pelagicus*) - commonly known as 'blue manna crabs' in WA - are found along the entire coastline of the State and are the crab most targeted by commercial and recreational fishers. They inhabit estuaries, sheltered bays and offshore waters to at least 50 metres depth.

The carapace of the blue swimmer crab is broad and flattened, with nine teeth on each side. The distance between the last teeth on either side is used to determine whether or not a crab has reached the size at which it can be legally removed from the water and eaten.

Blue swimmer crabs can grow up to 200 mm carapace width. In WA, the minimum legal size for blue swimmer crabs is, in general, 127 mm carapace width. However in Geographe Bay, a minimum size of 128 mm applies to commercial fishers.

Note that only the mature male is actually blue; females are a mottled brown colour.

2.2 Sand crabs (*Ovalipes australiensis*)

Sand crabs (*O. australiensis*) generally occur west and south of Perth, eastward to around Tasmania and north to southern Queensland. They are usually found in shallow, soft-bottomed habitats, but have been recorded in water depths up to 80 metres.

The carapace of sand crabs is squarer than that of the blue swimmer, with only five teeth on either side. A further distinguishing feature is the two dark-red or brown spots toward the back of the carapace.

Sand crabs grow to a little over 100mm carapace width. There is no legal minimum size legislated in Western Australia for them.

SECTION 3 EXISTING MANAGEMENT ARRANGEMENTS

3.1 The Legislative Environment

Fisheries in Western Australia are managed under the *Fish Resources Management Act 1994* (the Act) and the *Fish Resources Management Regulations 1995* (the Regulations).

The Act allows for the designation of Managed Fisheries and Interim Managed Fisheries, as well as management by orders, licence conditions and regulations. A small number of fishing activities, including commercial crab fishing in Geographe Bay, are managed by an exemption under section 7 of the Act.

3.2 The Commercial Fishery

All licensed commercial fishers in WA are currently permitted to set drop nets in the waters of Geographe Bay. If a commercial fisher operates from a boat, that boat must be attached to a fishing boat licence.

Under current arrangements, there is no limit on the number of commercial fishing boats that can be used to fish for crabs in Geographe Bay, nor has the Department of Fisheries imposed a limit on the number of drop nets that can be used. Over the past ten years, twelve licensees have a demonstrated history of using drop nets in the bay.

Commercial crab fishermen who wish to use crab traps in Geographe Bay need an exemption granted by the Minister for Fisheries. The Ministerial exemption refers to the *Fish Trap Prohibition Notice 1994*, which prohibits the use of traps unless otherwise authorised. At present, seven licensees are permitted to use crab traps in the bay.

Occasionally a small number of crabs may be taken in other commercial fisheries operating in Geographe Bay. This catch is commonly termed by-catch, and amounts to a very small proportion of the total catch in the fishery.

The minimum size limit for commercially caught crabs in Geographe Bay is 128mm. Crabs catches generally occur within 100 metres offshore and in the waters between Busselton and Dunsborough during winter and spring.

Commercial fishing for crabs in Geographe Bay is prohibited on weekends, public holidays, school holidays (other than that at the end of term two), and on any other day one hour after sunrise to one hour before sunset.

Fishing for crab is also prohibited at any time within a scheduled area, between Dolphin Road (west of the Busselton jetty) to the north western prolongation of the eastern-most groyne of the Port Geographe Marina (east of the Busselton jetty) - see Figures 3 and 4. The prohibited area between these two points extends 400 metres offshore from the high water mark and includes an 800 metre exclusion area around the Busselton jetty.

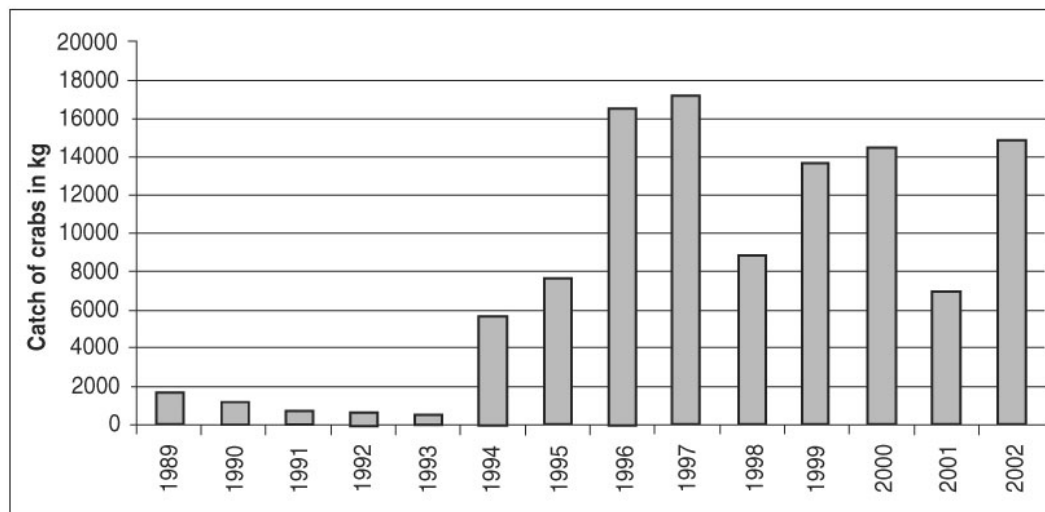
The closure of these waters to commercial fishing has effectively provided recreational fishers with exclusive access to this area.

A summary of commercial catches of crabs from Geographe Bay is shown in Table 1, while a historical view of crab catches in the Bay can be seen in Figure 2. When reading Table 1, it should be noted that the terms ‘crab traps’ and ‘potting’ are often interchanged by commercial fishers when reporting their catch. This situation is symptomatic of the introduction of new gear types and a lack of familiarity with the terms used to describe the new gear.

Table 1: Commercial crab catches in Geographe Bay (in kg)¹

Method	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Beach seine	0	0	20	37	0	0	30	9	214	0	130	70	0	0
Drop net	1,581	1,033	706	589	175	5,667	7,536	16,115	16,316	8,313	4,352	6,970	314	5,124
Gill (set) net	0	0	20	0	0	0	0	1	0	0	1019	0	0	0
Haul net	6	1	6	12	403	0	3	6	108	44	22	10	0	56
Potting (traps)	0	0	3	0	0	0	100	370	618	455	8,163	7,424	6,663	9,600
Purse seine	0	0	0	0	0	0	0	0	2	0	0	0	0	62
Trawling	54	153	33	0	0	0	0	0	0	0	0	0	0	30
Total	1,641	1,187	788	638	578	5,667	7,669	16,501	17,258	8,812	13,686	14,474	6,977	14,872

Figure 2: Commercial crab catches in Geographe Bay 1989-2002



¹ Block 9601 only

3.3 The Recreational Fishery

The recreational fishery includes all waters of Geographe Bay, as well as a “recreational crab fishing only” zone, between Dolphin Road and the Port Geographe Marina and within an 800-metre arc around the Busselton jetty (refer to section 3.2).

There is no specific recreational licence for taking inshore crabs in Western Australia and recreational access to the crab resource is available throughout the year.

Permissible recreational crab fishing methods are ‘by hand’, a non-piercing wire hook, a wire scoop net or a drop net. The minimum size limit for recreationally-caught crabs is 127mm - 1mm less than the commercial size limit of 128mm.

Like commercial fishers, recreational fishers must return all spawning females (those carrying masses of eggs, or ‘berry’ underneath). Undersize crabs must be returned to the water within five minutes of capture.

A daily bag limit of 24 crabs per person fishing or 48 crabs per boat (two or more fishers) applies. A boat limit of 10 drop nets applies, or 10 drop nets per person if fishing from the shore.

An estimated recreational catch of 28.6 tonnes (preliminary data) during the 2002 calendar year resulted from a recent survey² of recreational fishers. The recreational boat-based catch of blue swimmers crabs has increased from 17.5 tonnes in 1996/97 (Sumner *et al*, 2000) to 27.0 tonnes in 2002.

The study indicates that the most popular recreational fishing spot for crabs is adjacent to the Port Geographe Marina, between Wonnerup and the Busselton jetty. Over 50 per cent of the recreational crab fishing in Geographe Bay occurs in this area.

Table 3: *Estimated catch and fishing effort for blue swimmer crabs by recreational boat-based fishers in Geographe Bay in 1996/97*

	1996/97
Effort (Fisher Days)	10,900
Number kept	85,400
Number released	
Weight kept (tonnes)	17.5
Catch rate (crabs/boat/trip)	18.2

² This data is taken from an FRDC-funded study, “Quantification of changes in recreational catch and effort on blue swimmer crabs in Cockburn Sound and Geographe Bay”, Project Number 2001/067. The report from this study is expected to be released at the end of 2003. Data from this study will assist the Department of Fisheries to monitor the trends in recreational crab catches, as compared to the trends in the commercial ones, in Geographe Bay.

Figure 3. Agreed arrangements - Geographe Bay crab mediation (December 2002) - fishery and commercial closures.

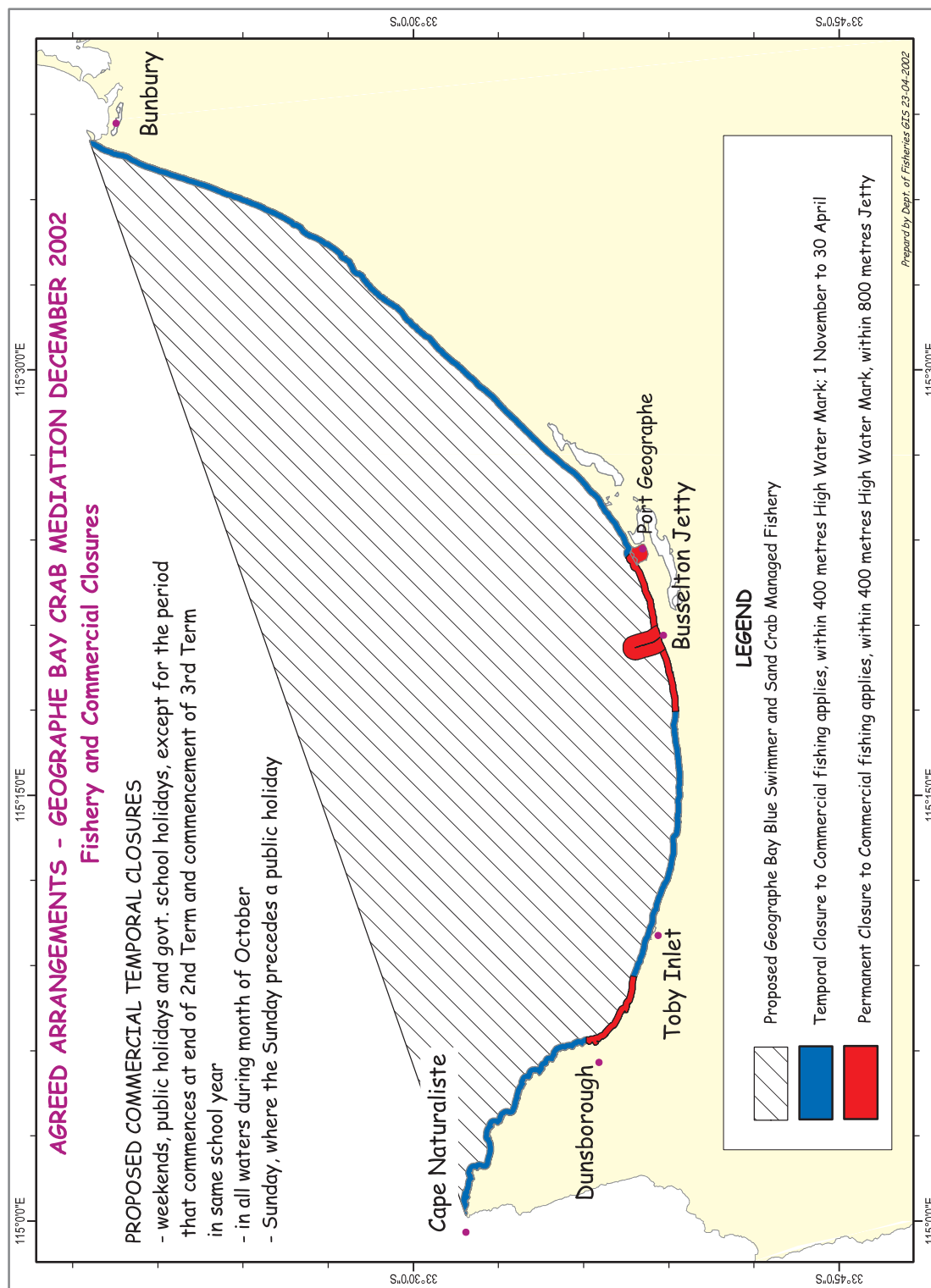


Figure 4. Agreed arrangements - Geographe Bay crab mediation (December 2002) - Busselton detail..

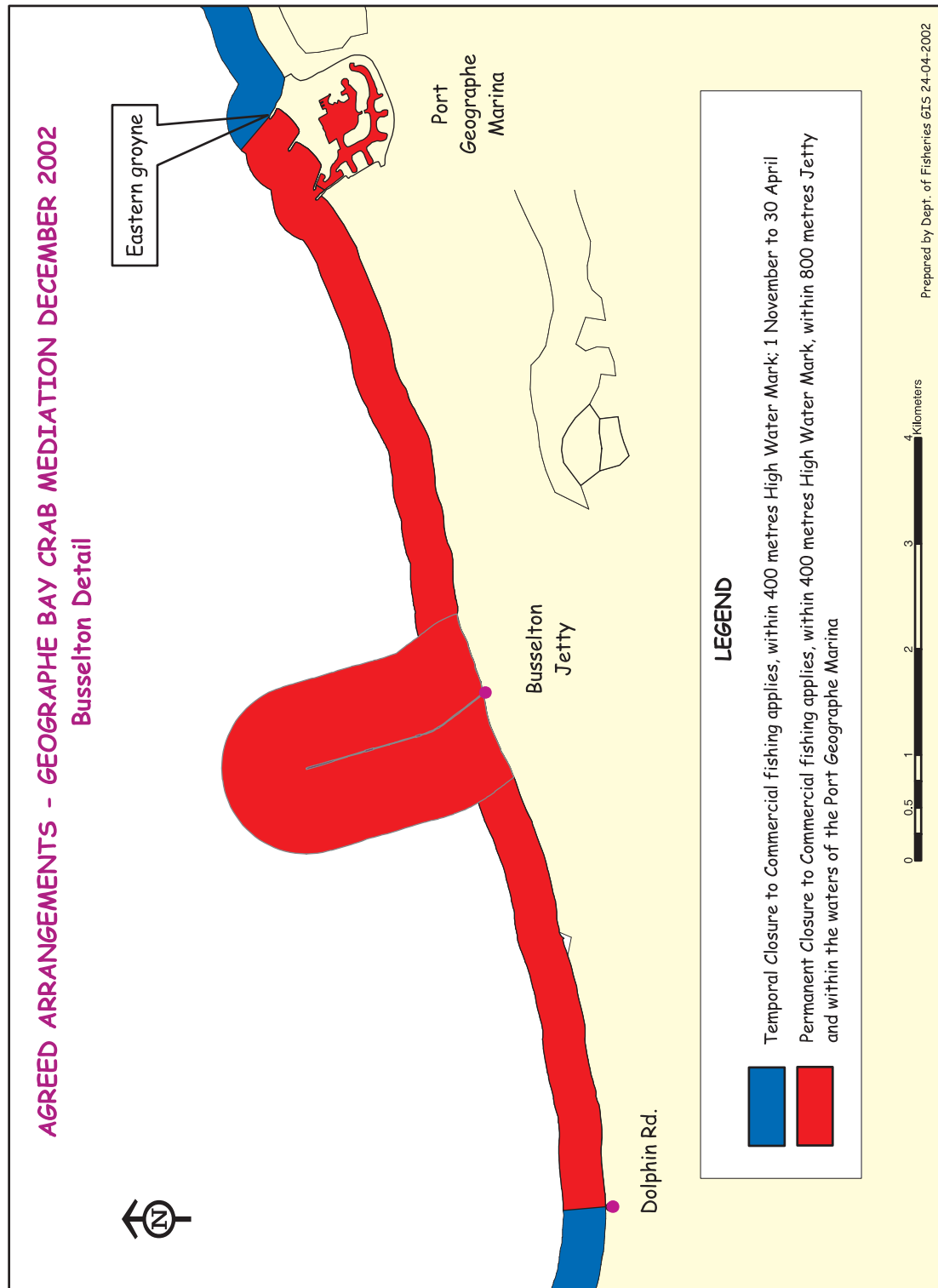
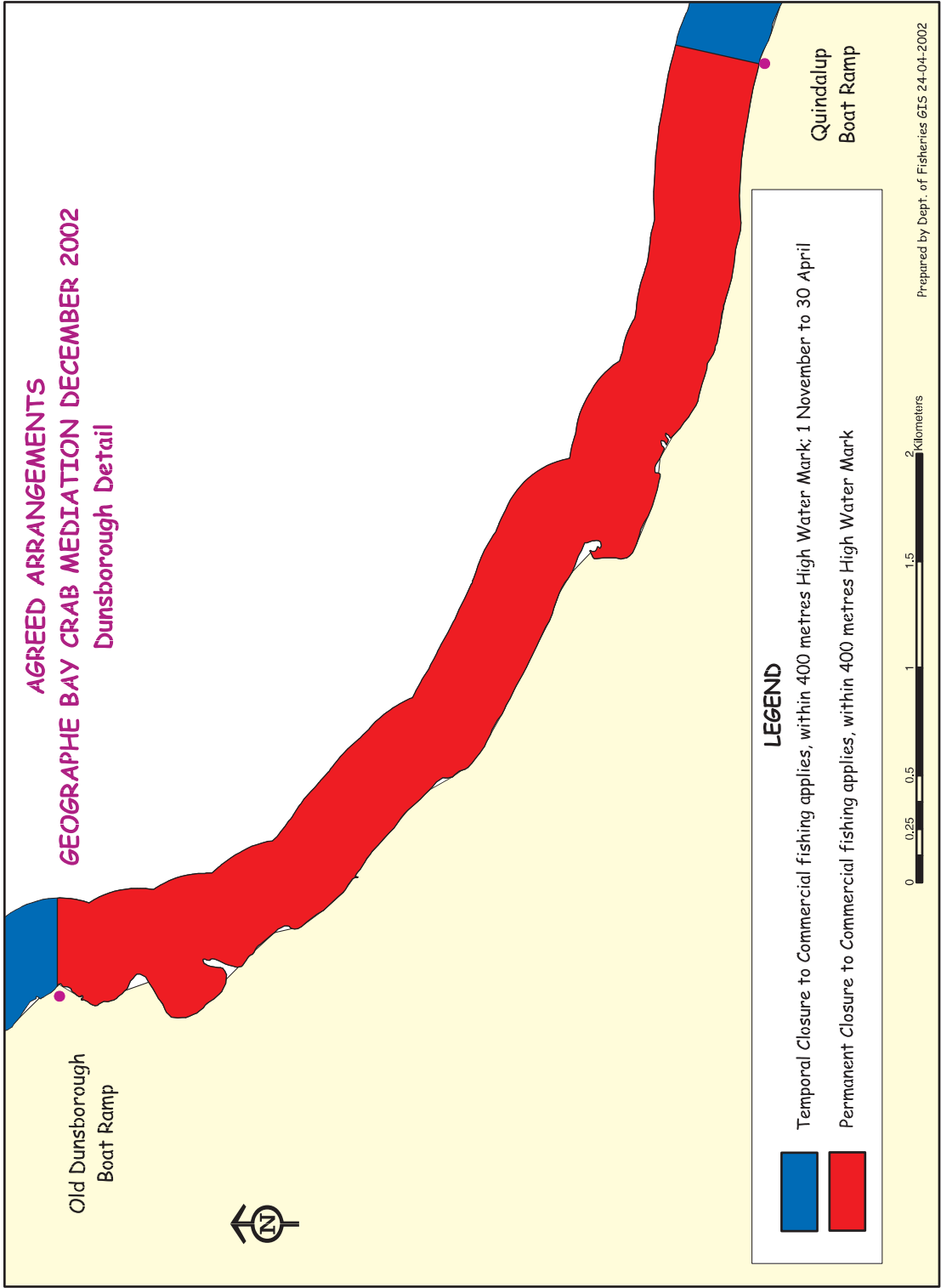


Figure 5. Agreed arrangements - Geographe Bay crab mediation (December 2002) - Dunsborough detail.



SECTION 4 BACKGROUND TO THE MEDIATION PROCESS

4.1 What are the Voluntary Resource Sharing Guidelines?

The Voluntary Resource Sharing Guidelines process gives power to those directly involved in the issues under discussion. This process is described in *Using Mediation to Solve Fisheries Issues in the 'Guidelines for Voluntary Resource Sharing' Process* (Wright *et al*, 2000).

In this process, the parties to an issue have an opportunity to be directly involved in a decision-making process that may develop proposals for the future directions of a fishery. The result is 'ownership' of resource sharing decisions.

The objective of the *Guidelines* process is to have all parties understand all of the issues associated with the resource in question and then "to set out a clear path for co-operatively achieving the goals identified by the group" (Wright *et al*, 2000).

There are two stages to be followed under the *Guidelines*: pre-mediation and mediation. The objective of pre-mediation is to hear the opening statements of the parties to the process and for parties to agree to mediate. Pre-mediation also advises all participants on how the mediation process would work and what is expected of participants (Wright *et al*, 2000).

A brief outline of the mediated *Guidelines* process is contained in Appendix 1.

4.2 A move towards a mediated settlement

The journey towards a mediated agreement regarding the issues affecting commercial and recreational crab fishing in Geographe Bay began in late 1998, with a detailed examination of the issues by the Busselton Shire Council. The council requested that the Department of Fisheries seek support from other relevant groups to apply the *Guidelines* resource sharing process to crab fishing in Geographe Bay. This support was received, and the Minister for Fisheries subsequently agreed that the *Guidelines* should be used to resolve the issues.

Before the mediation process began, the key stakeholders of Recfishwest, the Western Australian Fishing Industry Council (WAFIC) and the Department of Fisheries worked closely to identify the likely composition of the mediation group, and invitations to participate in the process were extended by the group's executive officer. Parties represented in the mediation included commercial and recreational crab fishers; the Department of Fisheries and the wider community represented by the South West Regional Development Commission and the Shire of Busselton. A full list of the names and profile of parties is given in Appendix 3.

Delegates from the relevant interest groups came together for the *Guidelines* process, which commenced on 22 May 2000 with a pre-mediation conference in Busselton. There was no direction from the Minister or from the Department of Fisheries as to whom should be involved in the mediation discussions – this was decided by the group itself. The mediator was Chris Stevenson, a partner in Mallesons Stephen Jaques (solicitors).

The pre-mediation conference was well attended and provided a good platform for open forum discussion on the general issues that led to the *Guidelines* process. In concluding the pre-mediation conference, it was agreed that mediation was an appropriate channel for resolving the identified issues. An agreement to mediate was signed by all parties prior to the commencement of the second mediated meeting, whereupon the mediation proper began.

During the mediation, group members were free to withdraw from the process if they so desired. In addition, those participating in the mediation remain cognisant of the need to ensure that the interests of all key stakeholder groups were represented. It was anticipated by all parties that the mediation would conclude by the end of 2000. However, it was not until October 2001, that the group agreed to sign a settlement agreement.

Two things then occurred which meant that the agreement could not be signed at that time. Firstly, a member of the group fell seriously ill. Secondly, members of the mediation group raised two late issues.

These issues concerned a proposed variation to the agreement and a proposed addition to the agreement. As group members had identified these issues, it was necessary for the group to meet again. The final meeting was held in September 2002 and the settlement agreement (Appendix 2) signed by all parties in December 2002.

SECTION 5 THE AGREED ARRANGEMENTS

5.1 Objectives

That:

- Realistic and equitable arrangements for commercial and recreational crab fishing in Geographe Bay can be achieved through the implementation of a management plan for commercial crab fishing in Geographe Bay and the introduction of new spatial and temporal arrangements for recreational crab fishing in the area.
- No more than 320 commercial crab traps should be permitted for use in Geographe Bay.

5.2 Overview of the key elements of the Agreed Arrangements

The agreed arrangements propose a number of changes to the management of commercial crab fishing. It is anticipated that if adopted, these changes would provide considerable benefit to the recreational fishing sector, the local tourism sector, government and the commercial fishing sector.

5.2.1 Benefits to the recreational crab fishing sector

Under the proposed arrangements, recreational fishers in Geographe Bay will have exclusive access to crabs:

- In all productive crab fishing waters, between the period November and April;
- In productive crab fishing waters between the Dolphin Road, Busselton and the eastern most groyne of the Port Geographe Marine, including waters within an 800 metre arc of the Busselton jetty, during the period between May and September;
- In productive crab fishing waters between the “old Dunsborough” boat ramp and the Quindalup boat ramp during the period between May and September; and
- With a surety of access and an opportunity to review the arrangements in five years.

5.2.2 Benefits to the local tourism industry

The proposed arrangements will provide the local tourism industry with:

- Exclusive access to the crab resource in productive waters during the peak tourism period of November to April.
- The opportunity for non-fishing consumers of crabs to have continued access to quality local crabs throughout the winter months.
- The opportunity to promote the area as a recreational crab fishing area of note.

5.2.3 *Benefits to Government*

The proposed arrangements will:

- Ensure commercial crab fishers make an annual financial contribution to the management of WA fisheries.
- Constrain the amount of commercial crab fishing gear that can be used in the fishery, which will lead to improved management.

5.2.4 *Benefits to the commercial crab fishing sector*

The proposed arrangements will:

- Through the prescribed application process, include in the fishery all fishers with a history of commercial crab fishing in Geographe Bay.
- Allow licence holders to trade their licence as a commodity on the commercial market.

SECTION 6 PROPOSED MANAGEMENT ARRANGEMENTS FOR COMMERCIAL CRAB FISHING

At present, a licensed commercial fisher has the ability to fish in Geographe Bay using drop nets. However, the number of commercial crabbers fishers in the area has been low largely due to the nature of commercial fishing in the area (mainly local, diversified, small-boat fishers); the historic low commercial value of crabs; and ongoing conflict between commercial and recreational crab fishers.

Under the arrangements that have been in place over the past four years, commercial fishers who satisfied a certain criteria have been permitted to use crab traps under a Ministerial Exemption. The arrangements worked well for the 'dedicated' commercial crab fishers and the recreational sector, due to the benefits of trap fishing. However, the temporary arrangements created some division within the commercial fishing sector in Geographe Bay.

The settlement agreement developed by the mediation group sought to address the ongoing concerns of the commercial and recreational sector by introducing a management plan that allows only crab traps to be used for commercial crab fishing.

The proposed management plan will provide management certainty for both sectors, in that:

- Recreational fishers will know that controls on commercial crab fishing activity have been increased and that their sector has had significant input into the development of those controls.
- A management plan based on the agreed arrangements will limit the number of commercial fishers in the Geographe Bay area, restrict the number of crab traps used in the fishery, and further constrain commercial crab fishing effort.
- Commercial crab fishers will have a higher degree of certainty about the crab fishing industry and will benefit from of a transferable entitlement, which can be bought and sold through the normal commercial channels.

A summary of the proposed arrangements is at Appendix 4.

6.1 Commercial Fishing

6.1.1 Citation

Commercial crab fishing activity in Geographe Bay shall be managed as the *Geographe Bay Blue Swimmer and Sand Crab Managed Fishery* managed under the *Fish Resources Management Act 1994* (WA).

Explanation

The citation describes how the management arrangements for commercial crab fishing should be referred to.

6.1.2 Definitions & Interpretation

Definition of the fishery: “The taking of crabs by trap in the waters of Geographe Bay.”

Gear: crab traps as described in section 5.1.7.

Species: Blue swimmer (*Portunus pelagicus*) and sand crabs (*Ovalipes australiensis*)

Area of fishery: As defined in section 6.1.3.

Managed Fishery Licence: A licence granted under section 66 of the *Fish Resources Management Act 1994*.

Regulations: The *Fish Resources Management Regulations 1995*.

Dinghy: A boat under 6.5 metres length overall, or under 8.0 metres and survey-exempt.

Licensed boat: A boat that has been licensed under the Regulations to be used in commercial fishing.

By-product: Non-target catch, which is commercially valuable and retained by fishers.

Discards: Non-target species that are caught in fishing gear and landed on the deck of a boat or on the beach, but are subsequently returned to the water, either because they have no value (for example, there is no market or they are toxic), or because regulations preclude them from being retained.

Bycatch: Includes discards and also the part of the catch that is not landed but killed as a result of interactions with fishing gear.

Sunset and Sunrise: Where sunset and sunrise mean the times provided by the Perth Astronomical Observatory for sunset and sunrise on a particular day.

Unit: the basis for allocation of access within the commercial fishery. At the commencement of the plan, one unit will equal one trap.

Open Access: fishing under a commercial fishing boat licence, where no further authorisation is required and the activity is not prohibited under fisheries legislation.

Explanation

To understand the commercial fishing arrangements, these terms may be defined in the management arrangements.

6.1.3 Area Of The Fishery

The fishery will incorporate the waters from the high water mark between the north-west point of Cape Naturaliste (33° 32' S, 115°00.2'E) and the light on the Bunbury breakwater (33°18.06'S, 115°38.76'E; GDA94). See Figure 3 for further details.

Explanation

The fishery will be one area, which takes into account the typical historical fishing area of commercial fishers who have created crab fishing history and includes the statistical fishing block (9601) that has been fished to produce this history. The landmark described on the Bunbury breakwater is not the Point McKenna lighthouse.

6.1.4 Authorised Fishing

Commercial blue swimmer and sand crab fishing activity will not be permitted in the fishery unless the holder of a fishing boat licence fishes under a Managed Fishery Licence granted in accordance with the management plan for the fishery.

Persons permitted to fish in the fishery should include:

- (i) Persons fishing for a recreational purpose; and
- (ii) Persons authorized to fish for a commercial purpose in the fishery.

Explanation

All possible methods of blue swimmer and sand crab fishing are addressed in this section. This section does not infringe on the access rights of other classes of persons with lawful access to the area.

Persons not permitted to keep crabs will include persons who beach seine for other species and take crabs as a bycatch. Crabs taken by unauthorised fishing methods must be returned to the water.

6.1.5 Fishing For Crabs

A person fishing for blue swimmer and sand crabs in contravention of the approved management arrangements shall not sell or deal in blue swimmer and sand crabs.

Explanation

Only persons holding a Commercial Fishing Licence and a Managed Fishery Licence issued in accordance with the approved management arrangements for commercial fishing of blue swimmer and sand crabs shall be permitted to sell crabs taken from the fishery.

6.1.6 Minimum Size of Crabs

The holder of a licence or a nominated operator must not take from the waters of the fishery, or have possession of, any crab that measures less than 128mm from tip-to-tip of the posterior carapace spikes.

Explanation

The increase in the minimum size limit means that the recreational sector will have the opportunity to access a greater share of the available catch. Current regulations require recreational fishers to only take crabs in excess of 127mm carapace width. A prohibition on the taking of berried females, regardless of size, applies to both commercial and recreational fishers.

6.1.7 Permitted Gear in the Commercial Fishery

Only crab traps approved by the Department of Fisheries may be used. Appropriate traps must meet the following specifications:

- (i) The trap must have two rings, each with a diameter of not greater than one metre, and when set, must have a height between the rings not greater than 450mm or, an internal volume not exceeding 0.31m³.
- (ii) A single crab trap must have securely fastened to it a tag that clearly displays the licensed fishing boat number of the boat used to set the traps in black lettering at least three centimetres in height.
- (iii) A crab trap shall have attached to it a negatively buoyant rope and at least one float. A set of traps, shall have attached to it a negatively buoyant rope attached to one float at either end and the float –
 - (a) float on the surface of the water;
 - (b) have a diameter of not less than 190mm; and
 - (c) be branded or stamped in legible characters not less than 80mm high and not less than 15mm wide with the distinguishing number allocated under regulation 118(3) of the Regulations in respect of the licensed fishing boat that is used to set or pull the trap.
- (iv) A crab trap may be attached to another crab trap by a minimum of 20 metres of negatively buoyant rope.
- (v) A crab trap must not be attached to a crab trap being used by the operator of another authorisation.

Explanation

Currently, the number of commercial drop nets that can be used in the fishery is unlimited and the opportunity to use drop nets is available to all holders of a commercial fishing licence.

Drop nets allow fishers to work the fishery for short periods of time and ‘spot test’ areas for productivity. However, there are greater benefits to the fishery as a whole when only traps are used. The main arguments for using crab traps in Geographe Bay are presented below.

One of the key outcomes of commercial crab trapping in Geographe Bay over the past four years is the conclusion that drop net fishing appears to have contributed to resource sharing debate that prevailed in the mid 1990s. By and large, a commercial fisher using drop nets will work in the early daylight hours. The operation is highly visible and each drop net has a float of its own.

The use of crab traps on a longline reduces the visibility of the fishing operation, as floats are only visible at each end of the line. Furthermore, traps are set in the water only between dusk and dawn, with the result that the floats can be noticed only for a short period of time and commercial crab fishers are largely removed from the immediate public eye.

While there has been provision for both gear types to be used over the past four years, the reality was that drop nets have seldom been used.

Economic arguments for trap use are based on their design. Traps can be a robust gear type, capable of being set in weather that is not conducive to drop net fishing. In addition, traps can be left in the water overnight and pulled some hours later. This means that commercial crab fishers have an opportunity to increase their economic return for investment (of time and money), and explore the fishery in deeper water, leaving crabs further inshore to be accessed by the recreational fishing sector.

The option of allowing commercial fishers to continue to use drop nets for a given period while equipping their operation with traps, or deciding if they wanted to remain in or trade-out of the fishery, has been examined. However, given that drop nets have been seldom used in Geographie Bay over the past four years and crab traps are used exclusively in other offshore crab fisheries in this State, a phase-in period for “gearing-up” with traps should not be necessary.

6.1.8 Operation of traps in the Commercial Fishery

There are also specifications as to where and when the traps can be operated:

- (i)(a) Crab traps set within 1,000 metres offshore must not be set in the waters of the fishery between two hours after sunrise and two hours before sunset on permitted fishing days.
- (b) Crab traps may remain in the water for the period between sunset on Sunday and sunset on Friday if traps are set more than 1,000 metres offshore.
- (ii) A person operating in the fishery must cease working traps two hours after sunrise.
- (iii) Crab traps set within 400 metres offshore may be set individually.
- (iv) Crab traps set further than 400 metres offshore must be set in a minimum set of eight and joined by negatively buoyant rope, with at least one float attached to each end of the set.

6.1.9 Trap Entitlement and Number Of Traps in the Fishery

6.1.9.1 Minimum trap entitlement

The holder of a Managed Fishery Licence may only operate in the fishery if the managed fishery licence is authorised to operate a minimum of eight crab traps.

6.1.9.2 Maximum number of traps in the fishery

The maximum number of traps in the fishery [320] should be reviewed five years after the commencement of the management arrangements.

Explanation

A minimum trap entitlement of eight traps prevents the possibility of a significant increase of effort in the fishery. It should prevent operators from ‘splitting’ their fishing units and having a number of separate fishing operations being carried out from several different boats at any one time.

Eight traps are also considered to be the minimum number of traps that would provide an acceptable economic return to the licensee. However, should licence splitting prove to be a concern, the Department of Fisheries will consult with stakeholders with a view to taking reasonable steps to address the matter.

The 320-trap limit is a means of controlling the effort in the commercial fishery and is a significant step in constraining commercial effort. It is essentially a reduction from 'open access' commercial fishing to a limited entry fishery. The 320-trap limit is based on a precautionary approach.

Both the maximum number of traps and the allocation of traps should be reviewed after five years of the approved management arrangements being in place. Review is a normal function of fisheries management and is necessary to ensure that the fish stock and the fishery are being managed in a sustainable manner.

6.1.10 Closures Within The Fishery

A commercial fisher must not fish:

- i) In any waters within 400 metres offshore from the high water mark between Dolphin Road, Busselton and the north-western prolongation of the eastern most groyne commencing to the west of the intersection of Layman Road and McCormack Street at Port Geographe, including the waters of the Port Geographe Marina (see Figure 4);
- ii) Within 800 metres of the Busselton Jetty;
- iii) During weekends³, public holidays and government school holidays gazetted under the provisions of the *School Education Act 1999* (WA), except for the period that commences at the end of the second school term of any year and the commencement of the third school term in the same year;
- iv) In waters less than 400 metres offshore during the period 1 November to 30 April;
- v) In all waters during the month of October;
- vi) In waters less than 400 metres offshore between the old Dunsborough boat ramp and Quindalup boat ramp (see Figure 5); and
- vii) On a Sunday, where the Sunday precedes a public holiday.

Explanation

The proposed arrangements for commercial crab fishing reflect the temporary access arrangements implemented since 1999. They take into account the success of the temporary management directions and the impact of urban development in the area over the past few years, including the use of Geographe Bay as a venue for non-fishing related recreational activities.

The closure of commercial crab fishing during October may impinge on other commercial fisheries in Geographe Bay (in which fishers may take crabs accidentally

³ A weekend is defined as the period commencing two hours before sunset on Friday through to two hours before sunset on Sunday, or Monday, should the Sunday precede a public holiday.

as by-catch). Adjustment to the management plans of the affected fisheries may thus be required.

6.1.11 Criteria For Grant of a Managed Fishery Licence

The criteria proposed for assessing applications for a Managed Fishery Licence in this fishery are:

- (A) That the applicant has demonstrated that a Fishing Boat Licence (FBL) was held in his/her name during the period 1 November 1994 to 31 October 1997 and that the same fishing boat recorded an average catch of at least one tonne of blue swimmer and/or sand crabs per year in that period, based on statutory fishing returns that were provided to the Department of Fisheries.
- (B) If the applicant cannot satisfy criteria (A) above, a pro-rata allocation of traps may be granted if statutory fishing returns demonstrate that during the period 1 November 1994 to 31 October 1997, the applicant held a fishing boat licence and catches of blue swimmer and/or sand crabs were taken. The pro-rata allocation shall be determined by calculating:

$$\frac{\text{Total Individual Catch during the criterion period}}{\text{Total catch of FBLs in the fishery during the criterion period that do not qualify for a licence granted pursuant to criteria (A)}} \times 40 \text{ (traps),}$$

and rounding the result from the above formula to the nearest whole number.

Upon the receipt of an application that does not meet either of the above criteria for the grant of a licence, the Executive Director must be satisfied that within seven days, an application will be made to transfer [a] trap entitlement/s to the Managed Fishery Licence and that upon completion of the transfer, the new Managed Fishery Licence will have a minimum entitlement of eight traps, the Executive Director may issue a licence.

Explanation

These criteria provide for the grant of Managed Fishery Licences based on past “open access” catch history of fishing units held in the name of one person.

In respect of (A), a person who satisfies the catch criteria may be granted 40 units (40 traps). In respect of (B), a pro-rata allocation of units will be made in respect of a persons’ boat catch history. The minimum trap entitlement that can be fished is eight.

Where the applicant cannot meet the access criteria, an application for the grant of a Managed Fishery Licence can be made to the Executive Director. In this case, the applicant must satisfy the Executive Director that applications will be made to transfer crab traps to the new licence (if granted) and that the trap entitlement on the new licence will be at least eight (see section 6.1.15).

6.1.12 Authority and Duration of Managed Fishery Licences

A Managed Fishery Licence shall commence on 1 May in any year and expire on 30 April of the following year.

Explanation

The proposed annual commencement date of a Managed Fishery Licence coincides with historic annual commercial fishing patterns.

6.1.13 Fit and Proper Person

In respect of proposals set out in sections 6.1.10 and 6.1.15, an applicant for the grant of a Geographe Bay Blue Swimmer and Sand Crab Managed Fishery Licence must be a fit and proper person to hold a licence.

6.1.14 Licence Details

The Managed Fishery Licence will record the following information:

- (i) Name of fishery – “Geographe Bay Blue Swimmer and Sand Crab Managed Fishery”.
- (ii) Name and residential address of licence holder and nominated operator (if applicable).
- (iii) The name and number of the Licensed Fishing Boat authorised to operate the Managed Fishery Licence.
- (iv) Date of issue or renewal.
- (v) Period for which licence is valid.
- (vi) Authorised gear type.
- (vii) No of units held.
- (viii) Any other conditions.

6.1.15 Adjustment of units in the fishery

The Executive Director may from time to time adjust the number of units in the fishery.

Explanation

Should biological, social or economic research indicate that the number of units in the commercial fishery is too high, the Executive Director may adjust the number of units held by each licence holder. This adjustment should be achieved by a proportional reduction in the number of units, rounded to whole units for each licence.

Decisions on the following season will, in general, be made prior to the commencement of the season, and where adjustment is to take place, written notification will be given to licence holders in time to allow trading of units for the commencement of fishing that year. Where the reduction causes the number of units on a licence to fall below eight, the licence holder should be required to trade their units so that at least eight units are held on each active fishing licence.

6.1.16 Criteria For The Transfer of a Managed Fishery Licence

Upon considering an application to transfer a Managed Fishery Licence, if the Executive Director is satisfied that the new licence will be endorsed with the minimum entitlement of eight traps, the Executive Director may transfer a licence.

Explanation

Where an application for the transfer of a Managed Fishery Licence is made, the applicant must have taken steps to ensure that the Executive Director can be satisfied that the applicant will be operating with at least eight traps.

6.1.17 Grounds to Refuse a Transfer of a Managed Fishery Licence

The Executive Director may refuse to transfer a Managed Fishery Licence or any part of the entitlement under that licence if:

- (a) The total fee has not been paid in respect of that licence; or
- (b) The licence to which the entitlement is to be transferred is not a licence issued in respect of the fishery; or
- (c) The person to whom the licence is to be transferred is not considered to be a fit and proper person.

Explanation

Section 131 of the *Fish Resources Management Act 1994* details a range of grounds to refuse transfer of a licence or entitlement. This proposal details additional grounds for refusal, which are relevant to the proposed Geographe Bay Blue Swimmer and Sand Crab Managed Fishery.

6.1.18 Grounds for the Cancellation of a Managed Fishery Licence

The Executive Director may cancel a Managed Fishery Licence when:

- a) All traps have been transferred from a licence; or
- b) A licence was granted against criteria B and is not endorsed with at least eight traps five years after the licence was granted; or
- c) The annual access fee for the current licensing period is not paid.

Explanation

The proposal provides grounds upon which the Executive Director may propose to cancel a licence. The proposed grounds relate to the permanent transfer of all crab traps, leaving a 'bare licence'.

The upward adjustment of licences with an initial unit entitlement of less than eight crab traps is provided for in the proposed arrangements. However, where a Managed Fishery Licence has an initial allocation of less than eight traps and that same licence still has less than eight traps after five years of the licence being granted, the licence will be cancelled.

The policy principle underlying this recommendation is that licence holders who have less than eight traps are considered to have an insignificant interest in the fishery. Five years is considered to be a fair window of opportunity for affected licensees to determine whether they wish to continue in the fishery and trade-up to the minimum trap holding, or exit the fishery. Adjusting the fishery in this way would ensure that all trap allocations could be fished and the potential for latent effort minimised.

6.1.19 Licensee or Nominated Operator to Control Operations within the Fishery

Unless otherwise authorised in writing by the Executive Director, the Managed Fishery Licence holder or the nominated operator shall:

- (i) Be on-board the authorised licensed fishing boat and be in charge of fishing activities when the boat is operating in the fishery; and
- (ii) Ensure that any undersize crabs and spawning crabs taken are returned to the water within five minutes of being brought on-board the authorised boat.

Explanation

The proposal allows either the licence holder or the nominated operator to be in charge of the fishing operation and to take responsibility for all matters relating to the operation of the licence, including the lodging of statutory fishing and research log book returns.

The nominated operator can be changed by formally varying the Managed Fishery Licence. Details of the nominated operator can be provided on an application for the grant of a Managed Fishery Licence or an application for the renewal of the same.

The proposed arrangements provide fishers with flexibility in organising their business arrangements. The proposal also accommodates a shift from the traditional owner-operator provision that had been used to restrain commercial fishing effort. Additional provisions that manage fishing effort in other ways are included in this draft proposal.

6.1.20 Returns

The Managed Fishery Licence holder, or the nominated operator, must complete research logbooks in addition to statutory monthly returns.

Explanation

Data other than data required on a statutory monthly return are necessary if more complete understanding of the fishery is to be ascertained. The statistical blocks described on these returns are not accurate enough to provide information on local fluctuations and populations.

It is possible for fishing grids of 5 x 5 nautical miles to be completed by commercial fishers. The grid size is consistent with the grid/block system used to record recreational fishing data.

A few commercial crab fishers currently complete the data required by the Voluntary Research Logbook program. However, these logbooks need to be completed by all commercial crab fishers to assist the Department of Fisheries and other stakeholders improve their understanding of the fishery.

6.1.21 Exemption for Combined Operations

There are a number of conditions relating to crab fishing operations where more than one operator is fishing from one licensed fishing boat.

- (i) If two or more nominated operators are to operate together and jointly use the same boat, both nominated operators must give written notice to the Senior Fisheries Officer in Charge of the Busselton District Office before fishing commences.
- (ii) The total number of traps used from a boat cannot exceed the sum of the number of traps endorsed on the respective Managed Fishery Licences operated by the persons operating from that boat.
- (iii) The nominated operators of both licences must be on-board.
- (iv) Any offences committed during the combined operations may relate equally to all the licences involved in the fishing operation.
- (v) Catches must be allocated proportionally according to the number of traps worked by the respective nominated operators.

Explanation

There is some history of more than two fishers operating from the same licensed fishing boat. In order to provide a flexible working environment, it is proposed that this should be allowed to continue. However, nominated operators need to be aware that they may be at risk of being found to have jointly committed an offence should any activity of the combined operation be found to be unlawful.

6.1.22 Use of Vehicles

All vehicles used in conjunction with a Fishing Boat Licence and the relevant authorisation granting access to crabs in Geographe Bay must have the Fishing Boat Licence number displayed on the vehicle.

Explanation

Although not previously required by law, this has been common practice in the past. The proposal to identify a vehicle connected with a commercial crab fishing operation assists in identifying the operation as a *bona fide* activity.

6.1.23 Fees

An application to the Executive Director must be:

- (i) Made on the form approved by the Executive Director.
- (ii) Lodged subject to any direction of the management arrangements, in accordance with the directions on the form.
- (iii) Accompanied by the prescribed fee.

The fee for each Managed Fishery Licence will be calculated in accordance with the number of traps authorised for use by the licence holder. An application for a Managed Fishery Licence also attracts a fee.

Explanation

Application fees are prescribed in the *Fish Resources Management Regulations 1995*. Annual access fees are to be paid on the grant or renewal of the Managed Fishery Licence.

It is proposed that annual access fees will be payable per “unit” – a “unit” being one crab trap. This allows for easy calculation of fees and calculation of the market value of the authorisation. As a rule, access fees are payable on or before commencement of a licensing period, or within 60 days. In the case of the ‘60 day rule’, the licence cannot be fished until the access fee is paid.

6.1.24 Procedure Before Arrangement is Amended or Revoked

The Executive Director will consult with all commercial fishers who have access to the proposed Geographe Bay Blue Swimmer and Sand Crab Managed Fishery, relevant peak bodies and local government.

Explanation

Apart from the commercial interest, there is also considerable interest in the fishery from the recreational fishing sector and the wider community. It is proposed that these groups are given the opportunity to comment as persons affected by any change to the proposed arrangements before any amendment to the arrangements is made.

6.1.25 Revocation

If a management plan is implemented, current exemptions, Order No. 8 of 1999 – *Prohibition on Commercial Fishing for Crabs (Geographe Bay) Order 1999* - and any other legislative provisions void by the arrangements should be revoked.

Explanation

The *Prohibition on Commercial Fishing for Crabs (Geographe Bay) Order 1999* was implemented as a management measure to assist in restricting the number of participants in the fishery. The notice describes the temporary closures to crab fishing.

This proposed management plan would replace previous management arrangements for this fishery.

6.1.26 Offences and Major Provisions

The major provision should include:

- (i) Fishing without a licence.
- (ii) Fishing in closed waters.
- (iii) Fishing outside prescribed hours.
- (iv) Use of illegal gear.
- (v) Use of excess gear.
- (vi) False declarations in returns.

6.2 Recreational Fishing

6.2.1 Existing Management Arrangements

The proposed management arrangements (see 6.2.2) will not over-ride existing rules for recreational fishing for crabs as found in other legislation, e.g. bag limits, size limits. The proposals, if adopted, will sit alongside this legislation.

The five-year management strategy for recreational fishing on the west coast of Western Australia independently recommended a bag limit reduction from 24 to 20 crabs per person and 48 to 40 crabs per boat. These new limits come into effect on 1 October 2003.

6.2.2 Closures within the Fishery

A recreational fisher must not fish for crabs:

- (i) Between the groynes erected as part of the Port Geographe development, or within the waters of the Port Geographe Marina unless using shore-based scoop nets or drop nets; or
- (ii) At any time during the month of October.

Explanation

The October closure is included in response to the reproductive cycle of female blue swimmer crabs in Geographe Bay, noting that these can be 'in berry' between the months of September to December, and if environmental conditions are favourable, up to January or February.

Protection of females during October could assist in maintaining a sustainable local resource and ensure that recreational fishers continue to enjoy quality recreational crab fishing. However, it is worth noting that preliminary data from the 2001/02

recreational crab survey in Geographe Bay suggests that the peak recreational catch and effort occurs during this month.

SECTION 7 REFERENCES

- Campbell, C (1997). *Issues affecting Western Australia's inshore crab fishery*. Fisheries Management Paper No 108. Fisheries Department of Western Australia, September 1997. Perth WA. 53pp.
- Kangas, M (2000). *Synopsis of the biology and exploitation of the blue swimmer crab, Portunus pelagicus (Linnaeus), in Western Australia*. Fisheries Research Report No. 121. pp11-12.
- South West Development Commission (2003) website.
<http://www.swdc.wa.gov.au/files/sprofiles/Busselton%20Statistics10.pdf> Accessed 20/5/2003
- Sumner, N.R., Malseed, B.E. and Williamson, P.C. (2000). *Estimating the recreational catch of blue swimmer crabs in the south west of Western Australia*. FRDC report 98/119. 61p.
- Sumner, N.R. and Malseed, B.E. (in press). *Quantification of changes in recreational catch and effort on blue swimmer crabs in Cockburn Sound and Geographe Bay*. Fisheries Research and Development Corporation report 2001/067.
- Western Australian Tourism Commission (2001). *Research Review on Domestic Visitor Activity*.
- Wright, G., R Metzner and H Chevis (2000). *Using Mediation to Solve Fisheries Issues in the 'Guidelines for Voluntary Resource Sharing' Process*. Fisheries Western Australia. May 2000. 27pp.

APPENDIX 1

Voluntary Guidelines for Resource Sharing process

The Department of Fisheries *Voluntary Guidelines for Resource Sharing (the Guidelines)* is a voluntary, non-statutory process that seeks to identify agreeable solutions to issues concerning fish and their habitats.

The construction of the *Guidelines* process resulted from a partnership between the recreational fishing sector, the commercial fishing industry and the Department of Fisheries.

There are five key steps in the *Guidelines* process:

1. *Initialisation* – when stakeholders put forward resource sharing issues they want resolved.
2. *Discovery* – when strategic issues and parties to an issue are identified.
3. *Assessment and Priority setting* – when the Department of Fisheries determines where its resources can be best applied.
4. *Notification, Negotiation and Arrangement* – when stakeholders generate/negotiate and agree to defensible solutions in a mediated forum.
5. *Implementation* - when the agreed and approved arrangements are implemented.

The management discussion paper “Management of the Proposed Geographe Bay Blue Swimmer and Sand Crab Managed Fishery” (Fishery Management Paper No. 170) is the outcome of step 4 of the *Guidelines* process. It is important to note that step 4 does not require the use of votes to reach an outcome. Rather, it relies upon consensual agreement arising from honesty, openness, understanding another’s point of view, and negotiation.

NOTE: For further details of the *Guidelines* process, see *Using Mediation to Solve Fisheries Issues in the ‘Guidelines for Voluntary Resource Sharing Process’*. This document can be viewed/downloaded on the Department of Fisheries’ website via the ‘About the Department of Fisheries’ page.

What is negotiation?

“Negotiation is defined as a process whereby two or more parties who hold, or believe they hold incompatible goals, engage in a give-and-take interaction to reach a mutual acceptable solution.” (Wilson and Putnam, 1990, cited in Ledingham and Bruning, 2000, p. 209).

What is mediation?

Mediation is the process by which the participants engage in negotiation with the assistance of a neutral party and “reach a consensual agreement that will accommodate their needs” (Folberg and Taylor, 1984:7, cited in Wright *et al*, 2000).

The mediation framework, as agreed to by participants in the Geographe Bay crab fishing mediation, required all parties (including the mediator) to sign an agreement to mediate. The conditions of the mediation were agreed to by each party before participating in discussions.

Conditions of mediation

1. Cooperation

The parties agree to cooperate in good faith with each other and the mediator during the mediation.

2. Without prejudice

The mediation is conducted without prejudice.

3. Authority to settle

The parties will attend the mediation with the authority to settle, within any range that they can reasonably anticipate. The parties accept that it may be necessary to get ratification of the agreements.

4. Confidentiality

4.1 The parties and the mediator will treat the matters discussed within the mediation context as confidential, and will not disclose any information that relates specifically to the matters being considered within the mediation, or which has arisen in the context of the mediation, within the limits of the law, other than information the parties agree to disclose.

4.2 Any notes or other written documents, statements, or proposals made by the parties will be treated as confidential.

5. Media

The parties and the mediator will not comment to the media during the course of the mediation on matters that have arisen in the context of the mediation, or as a result of the mediation, other than statements agreed to by the parties. This does not extend to general statements such as reference to the fact that the mediation is under way.

6. Role of the mediator

- 6.1 The mediator will be neutral and impartial in the conduct of the mediation. The mediator will assist the parties to try and resolve the dispute by helping them to isolate the issues in dispute, develop options for the resolution of these issues in dispute, and settle on those options according to the interests and needs of the parties.
- 6.2 The mediator's participation in the mediation may be terminated by notice in writing jointly signed by the parties.

7. Withdrawal from the mediation

Any party may withdraw from the mediation by giving notice in writing to the mediator.

8. Termination of mediation

The mediator may terminate the mediation at any time by giving notice in writing to the parties to the mediation.

9. Mediator's liabilities and parties indemnity

The parties, together and separately, indemnify the mediator against any claim for any act or omission in the performance of the mediator's obligations under this agreement unless the act or omission is fraudulent.

10. Agreement to settlement

If a settlement or resolution is reached, the terms of the settlement or resolution will be written down and signed by the parties ("Settlement Agreement") before the mediation is concluded.

APPENDIX 2 THE AGREEMENT TO SETTLE

The agreed arrangements were made in December 2002 between:

- The named persons on behalf of Commercial Fishing Licence holders who have an interest in crab fishing in Geographe Bay
- AND The Recreational Fishing Advisory Committee
- AND The WA Recreational and Sporting Council Inc., trading as Recfishwest
- AND The Western Australian Fishing Industry Council Inc.
- AND The South West Development Commission
- AND The Busselton Shire Council
- AND The Busselton recreational crab fishing community
- AND The Department of Fisheries, Western Australia.

RECITALS

- A. The parties to these **Agreed Arrangements** are:
 - (i) The licensed commercial fishers of Busselton and Bunbury represented by Mr Bob Jones, Mr Richard Lear representing the commercial fishermen of Busselton, and Mr Nic Lucas and Mr Nic Soulos representing the commercial fishermen of Bunbury;
 - (ii) Members of the recreational fishing community as represented by the Recreational Fishing Advisory Committee;
 - (iii) Members of the Busselton recreational crab fishing community as represented by Mr John Valentine;
 - (iv) Members of the recreational fishing community as represented by Recfishwest;
 - (v) Members of the commercial fishing community as represented by the Western Australian Fishing Industry Council;
 - (vi) Members of the economic community of the south west as represented by the South West Development Commission; and
 - (vii) Other members of the public who are stakeholders in the activities connected with commercial and recreational fishing in Geographe Bay as represented by the Department of Fisheries, Western Australia.
- B. The parties to these **Agreed Arrangements** have reached agreement in accordance with the terms of this document, especially as set out in Annex

1, in relation to the management of commercial and recreational fishing of crabs in Geographe Bay.

- C. The parties acknowledge that these Agreed Arrangements are not legally binding, but the parties agree to be bound by the moral obligation of these **Agreed Arrangements**.

AND THE PARTIES AGREE AS FOLLOWS:

- 1 The blue swimmer and sand crab resource is particularly vulnerable to environmental degradation as these crabs are concentrated in the near shore waters and depend on seagrass habitats. Clearly, a healthy aquatic environment is integral to the sustainability of this resource in Geographe Bay.

The group respectfully requests all planning and management authorities to give full and appropriate consideration to the needs of this sensitive environment, and the commercial and recreational infrastructure that relies on the environment.

- 2 The **Agreed Arrangements** represent significant progress in the sustainable management of community resources where the social and economic benefit derived from the resource is a concern to the wider community.
- 3 For the purpose of these **Agreed Arrangements**, the Geographe Bay Blue Swimmer and Sand Crab Managed Fishery is the area that incorporates waters from the high water mark between the northwest point of Cape Naturaliste (33 32.00'S, 115 00.2'E) and the light on the Bunbury breakwater (33 18.06'S, 115 38.76'E; GDAA94).
- 4 The parties will make application to the Minister for Agriculture, Forestry and Fisheries with advice to support the implementation of the **Agreed Arrangements**, including the management strategies and associated regulations referred to and outlined in Annex 1.
- 5 The representative of the Busselton Shire Council acknowledges that this mediation process has been conducted in accordance with the *Guidelines for Voluntary Resource Sharing* process, but remains impartial to the agreed arrangements pending the outcome of a formal public consultation process.
- 6 The parties will support the Minister's consideration and implementation of the **Agreed Arrangements** detailed in Annex 2 under the *Fisheries Resources Management Act 1994* (WA) and the *Fisheries Adjustment Scheme (FAS) Act 1987* (WA).
- 7 If the **Agreed Arrangements** proposed by the parties to this agreement are not implemented on the basis outlined, the **Agreed Arrangements** will be of no force or effect and shall not otherwise be binding on the parties.
- 8 All parties agree to do such further acts as shall be reasonably required to give support to enable full effect to be given to these **Agreed Arrangements**.

- 9 The parties to the mediation suggest that a public forum should be the vehicle to inform the Geographe Bay community of the rationale for the **Agreed Arrangements**, after the **Agreed Arrangements** have been submitted to the Minister, and key elements have been made publicly available.
- 10 In particular, the Department of Fisheries (WA), agrees to undertake the necessary steps to implement the management changes required to support the **Agreed Arrangements** detailed in Annexes 1 and 2.
- 11 Reference to the **Agreed Arrangements** includes all of the elements of these arrangements, including the annexes.
- 12 Each of the persons who has signed as licensed commercial fisherman representing Bunbury or Busselton crab fishermen, represents and acknowledges that he is a *bona fide* fisher holding a current Commercial Fishing Licence
- 13 The person who has signed as a representative on behalf of the Recreational Fishing Advisory Committee represents and acknowledges that:
 - 13.1 The person is a *bona fide* member of the Recreational Fishing Advisory Committee;
 - 13.2 The person is authorised to represent the Recreational Fishing Advisory Committee in the negotiations relating to the *Guidelines for Voluntary Resource Sharing* process regarding crab fishing in Geographe Bay; and
 - 13.3 In doing so, the person reflects the support of the Recreational Fishing Advisory Committee in the negotiations relating to the *Guidelines for Voluntary Resource Sharing* process regarding crab fishing in Geographe Bay.
- 14 The person who has signed as a representative of the Busselton recreational crab fishing community represents and acknowledges that he is a *bone fide* member of the Busselton recreational crab fishing community.
- 15 Each of the persons who have signed as a representative on behalf of Recfishwest represents and acknowledges that:
 - 15.1 The person is a *bone fide* representative of Recfishwest;
 - 15.2 The person is authorized to represent Recfishwest in the negotiations relating to the *Guidelines for Voluntary Resource Sharing* process regarding crab fishing in Geographe Bay;
 - 15.3 In doing so, the person reflects the support of constituents of Recfishwest in the negotiations relating to the *Guidelines for*

Voluntary Resource Sharing process regarding crab fishing in Geographe Bay.

- 16 Each of the persons who has signed as a representative on behalf of the Western Australian Fishing Industry Council represents and acknowledges that:
 - 16.1 The person is a *bona fide* representative of the Western Australian Fishing Industry Council;
 - 16.2 The person is authorized to represent the Western Australian Fishing Industry Council in the negotiations relating to the *Guidelines for Voluntary Resource Sharing* process regarding crab fishing in Geographe Bay; and
 - 16.3 In doing so, the person reflects the support of the Western Australian Fishing Industry Council in the negotiations relating to the *Guidelines for Voluntary Resource Sharing* process regarding crab fishing in Geographe Bay.
- 17 The person who has signed as a representative on behalf of the South West Development Commission represents and acknowledges that:
 - 17.1 The person is a *bone fide* representative of the South West Development Commission;
 - 17.2 The person is authorized to represent the South West Development Commission in the negotiations relating to the *Guidelines for Voluntary Resource Sharing* process regarding crab fishing in Geographe Bay; and
 - 17.3 In doing so, the person reflects the support of the South West Development Commission in the negotiations relating to the *Guidelines for Voluntary Resource Sharing* process regarding crab fishing in Geographe Bay.
- 18 The person who has signed as a representative on behalf of the Department of Fisheries, Western Australia represents and acknowledges that:
 - 18.1 The person is a *bona fide* representative of the Department of Fisheries, Western Australia;
 - 18.2 The person is authorized to represent the Department of Fisheries, Western Australia in the negotiations relating to the *Guidelines for Voluntary Resource Sharing* process regarding crab fishing in Geographe Bay; and

- 18.3 In doing so, the person reflects the support of the Department of Fisheries, Western Australia in the negotiations relating to the *Guidelines for Voluntary Resource Sharing* regarding crab fishing in Geographe Bay.

EXECUTED as **AGREED ARRANGEMENTS** under the Department of Fisheries, Western Australia *Guidelines for Voluntary Resource Sharing* process.

APPENDIX 3 MEMBERS OF MEDIATION GROUP

(In alphabetical order)

MEMBER	ROLE	PROFILE
Ms Carol Devitt	Representing South West Development Commission (SWDC)	Chairman, SWDC. Resident, Cowaramup
Mr Peter Godfrey	Representing the Department of Fisheries	Supervising Fisheries Officer, Department of Fisheries, Busselton District Office
Mr Robert Jones	Representing Busselton-based commercial crab fishers	Fisherman, authorised to use crab traps in Geographe Bay. Dunsborough resident
Mr Richard Lear	Representing Busselton-based commercial crab fishers	Fisherman, not authorised to use crab traps in Geographe Bay. Busselton resident
Mr Guy Leyland	Representing commercial fishers	Executive Officer, WAFIC
Mr Nic Lucas	Representing Bunbury-based commercial crab fishers	Member, South West Licensed Fishermen's Association. Fisherman, authorised to use crab traps in Geographe Bay. Bunbury resident
Mr Chris Mills	Representing the Recreational Fishing Advisory Committee (RFAC)	Member, RFAC Bunbury Resident
Mr Frank Prokop	Representing recreational fishers	Executive Director, Recfishwest
Mr Nic Soulos	Representing Bunbury-based commercial crab fishers	Member, South West Licensed Fishermen's Association. Fisherman, authorised to use crab traps in Geographe Bay. Bunbury resident.
Mr Chris Stevenson	Mediator	Partner, Dispute Resolution Centre, Malleons Stephen Jaques
Mr John Valentine	Recreational fisher	Resident, Geographe Bay Local business proprietor
Ms Kirrily White and Mr Damon Carter	Representing Shire of Busselton	Environmental Officer, Shire of Busselton. Resident, Geographe Bay area

APPENDIX 4: KEY ELEMENTS OF THE PROPOSED MANAGEMENT ARRANGEMENTS FOR COMMERCIAL AND RECREATIONAL CRAB FISHING IN GEOGRAPHE BAY

Commercial Sector	Species	Blue swimmer crabs and sand crabs
	Minimum Size	128 mm
	Gear	<ul style="list-style-type: none"> ○ Crab traps only
	Management	<ul style="list-style-type: none"> ○ Maximum of 320 crab traps in fishery ○ Trap numbers to be reviewed in five years ○ Tradable licences ○ Licence holder does not have to be on boat but a nominated operator must be on board ○ Minimum fishable trap holding of eight traps ○ Holdings of less than eight traps must be adjusted to minimum fishable trap holding after 2 years of the plan being in place
	Temporal Closures	<p>No fishing –</p> <ul style="list-style-type: none"> ○ Two hours before sunset on a Friday and two hours before sunset on Sunday (or Monday if a long weekend) ○ In the month of October ○ In school holidays, except the mid year (July) holidays ○ During November to April inclusive in any given year
	Spatial closures	<p>No fishing –</p> <ul style="list-style-type: none"> ○ In waters less than 400 metres offshore between “old Dunsborough” boat ramp and the Quindalup boat ramp ○ In waters less than 400 metres offshore between Dolphin Road (Busselton) and the Port Geographe marina ○ In waters within 800 metres of the Busselton jetty ○ In the Port Geographe Marina and between the groynes
	Research obligations	Required to complete Research Logbooks
Recreational Sector	Species	Blue swimmer crabs and sand crabs
	Minimum size	127 mm
	Temporal closures	No crab fishing in the month of October
	Spatial closures	No boat fishing for crabs in the Port Geographe Marina and between the groynes

FISHERIES MANAGEMENT PAPERS

- No. 1** The Report of the Southern Western Australian Shark Working Group. Chairman P. Millington (1986).
- No. 2** The Report of the Fish Farming Legislative Review Committee. Chairman P. Rogers (1986).
- No. 3** Management Measures for the Shark Bay Snapper 1987 Season. P. Millington (1986).
- No. 4** The Esperance Rock Lobster Working Group. Chairman A. Pallot (1986).
- No. 5** The Windy Harbour - Augusta Rock Lobster Working Group. Interim Report by the Chairman A. Pallot (1986).
- No. 6** The King George Sound Purse Seine Fishery Working Group. Chairman R. Brown (1986).
- No. 7** Management Measures for the Cockburn Sound Mussel Fishery. H. Brayford (1986).
- No. 8** Report of the Rock Lobster Industry Advisory meeting of 27 January 1987. Chairman B. Bowen (1987).
- No. 9** Western Rock Lobster Industry Compensation Study. Arthur Young Services (1987).
- No. 10** Further Options for Management of the Shark Bay Snapper Fishery. P. Millington (1987).
- No. 11** The Shark Bay Scallop Fishery. L. Joll (1987).
- No. 12** Report of the Rock Lobster Industry Advisory Committee to the Hon Minister for Fisheries 24 September 1987. (1987)
- No. 13** A Development Plan for the South Coast Inshore Trawl Fishery. (1987)
- No. 14** Draft Management Plan for the Perth Metropolitan Purse Seine Fishery. P. Millington (1987).
- No. 15** Draft management plan, Control of barramundi gillnet fishing in the Kimberley. R. S. Brown (1988).
- No. 16** The South West Trawl Fishery Draft Management Plan. P. Millington (1988).
- No. 17** The final report of the pearling industry review committee. F.J. Malone, D.A. Hancock, B. Jeffriess (1988).
- No. 18** Policy for Freshwater Aquaculture in Western Australia. (1988)
- No. 19** Sport Fishing for Marron in Western Australia - Management for the Future. (1988)
- No. 20** The Offshore Constitutional Settlement, Western Australia 1988.
- No. 21** Commercial fishing licensing in Western Australia. (1989)
- No. 22** Economics and marketing of Western Australian pilchards. SCP Fisheries Consultants Pty Ltd (1988).
- No. 23** Management of the south-west inshore trawl fishery. N. Moore (1989)
- No. 24** Management of the Perth metropolitan purse-seine fishery. N. Moore (1989).
- No. 25** Rock Lobster Industry Advisory Committee report to the Minister for Fisheries November 1988. (1989)
- No. 26** A report on marron fishing in Western Australia. Chairman Doug Wenn MLC (1989).
- No. 27** A review of the Shark Bay pearling industry. Dr D.A. Hancock, (1989).
- No. 28** Southern demersal gillnet and longline fishery. (1989)
- No. 29** Distribution and marketing of Western Australian rock lobster. P. Monaghan (1989).
- No. 30** Foreign investment in the rock lobster industry. (1989)

- No. 31** Rock Lobster Industry Advisory Committee report to the Hon Minister for Fisheries September 1989. (1989)
- No. 32** Fishing Licences as security for loans. P. Rogers (1989)
- No. 33** Guidelines for by-laws for those Abrolhos Islands set aside for fisheries purposes. N. Moore (1989).
- No. 34** The future for recreational fishing - issues for community discussion. Recreational Fishing Advisory Committee (1990).
- No. 35** Future policy for charter fishing operations in Western Australia. P. Millington (1990).
- No. 36** Long term management measures for the Cockburn Sound restricted entry fishery. P. Millington (1990).
- No. 37** Western rock lobster industry marketing report 1989/90 season. MAREC Pty Ltd (1990).
- No. 38** The economic impact of recreational fishing in Western Australia. R.K. Lindner, P.B. McLeod (1991).
- No. 39** Establishment of a registry to record charges against fishing licences when used as security for loans. P. Rogers. (1991)
- No. 40** The future for Recreational Fishing - Forum Proceedings. Recreational Fishing Advisory Committee (1991)
- No. 41** The future for Recreational Fishing - The Final Report of the Recreational Fishing Advisory Committee. Recreational Fishing Advisory Committee (1991).
- No. 42** Appendix to the final report of the Recreational Fishing Advisory Committee. (1991)
- No. 43** A discussion of options for effort reduction. Southern Gillnet and Demersal Longline Fishery Management Advisory Committee (1991).
- No. 44** A study into the feasibility of establishing a system for the buy-back of salmon fishing authorisations and related endorsements. (1991)
- No. 45** Draft Management Plan, Kimberley Prawn Fishery. (1991)
- No. 46** Rock Lobster Industry Advisory Committee, Chairman's report to the Minister (1992)
- No. 47** Long term management measures for the Cockburn Sound restricted entry fishery. Summary of submissions and final recommendations for management. P. Millington (1992).
- No. 48** Pearl oyster fishery policy guidelines (Western Australian Pearling Act 1990). Western Australian Fisheries Joint Authority (1992).
- No. 49** Management plan, Kimberley prawn fishery. (1992)
- No. 50** Draft management plan, South West beach seine fishery. D.A. Hall (1993).
- No. 51** The west coast shark fishery, draft management plan. D.A. Hall (1993).
- No. 52** Review of bag and size limit proposals for Western Australian recreational fishers. F.B. Prokop (May 1993).
- No. 53** Rock Lobster Industry Advisory Committee, Chairman's report to the Minister for Fisheries. (May 1993)
- No. 54** Rock Lobster Industry Advisory Committee, Management proposals for 1993/94 and 1994/95 western rock lobster season (July 1993).
- No. 55** Rock Lobster Industry Advisory Committee, Chairman's report to the Minister for Fisheries on management proposals for 1993/94 and 1994/95 western rock lobster seasons (September 1993).
- No. 56** Review of recreational gill, haul and cast netting in Western Australia. F. B. Prokop (October 1993).
- No. 57** Management arrangements for the southern demersal gillnet and demersal longline fishery 1994/95 season. (October 1993).

- No. 58** The introduction and translocation of fish, crustaceans and molluscs in Western Australia. C. Lawrence (October 1993).
- No. 59** Proceedings of the charter boat management workshop (held as part of the 1st National Fisheries Manager Conference). A. E. Magee & F. B. Prokop (November 1993).
- No. 60** Bag and size limit information from around Australia (Regulations as at September 1993) F. B. Prokop (January 1993).
- No. 61** Economic impact study. Commercial fishing in Western Australia Dr P McLeod & C McGinley (October 1994)
- No. 62** Management arrangements for specimen shell collection in Western Australia. J. Barrington, G. Stewart (June 1994)
- No. 63** Management of the marine aquarium fish fishery. J. Barrington (June 1994)
- No. 64** The Warnbro Sound crab fishery draft management plan. F. Crowe (June 1994)
- No. 65** Not issued
- No. 66** Future management of recreational gill, haul and cast netting in Western Australia and summary of submissions to the netting review. F.B. Prokop, L.M. Adams (September 1994)
- No. 67** Long term management strategies for the Western Rock Lobster Fishery. (4 volumes) Evaluation of management options Volume 1. B. K. Bowen (September 1994)
- No. 68** Long term management strategies for the Western Rock Lobster Fishery. (4 volumes) Economic efficiency of alternative input and output based management systems in the western rock lobster fishery, Volume 2. R.K. Lindner (September 1994)
- No. 69** Long term management strategies for the Western Rock Lobster Fishery. (4 volumes) A market-based economic assessment for the western rock lobster industry, Volume 3. Marec Pty Ltd (September 1994)
- No. 70** Long term management strategies for the Western Rock Lobster Fishery. (4 volumes) Law enforcement considerations, Volume 4. N. McLaughlan (September 1994)
- No. 71** The Rock Lobster Industry Advisory Committee Chairman's Report, October 1994, The Western Rock Lobster Fishery - Management proposals for the 1994/95 and 1995/96 seasons (November 1994)
- No. 72** Shark Bay World Heritage Area draft management plan for fish resources. D. Clayton (November 1994)
- No. 73** The bag and size limit review: new regulations and summary of submissions. F. Prokop (May 1995)
- No. 74** Report on future management options for the South West trawl limited entry fishery. South West trawl limited entry fishery working group (June 1995)
- No. 75** Implications of Native Title legislation for fisheries management and the fishing industry in Western Australia. P. Summerfield (February 1995)
- No. 76** Draft report of the South Coast estuarine fishery working group. South Coast estuarine fishery working group. (February 1995)
- No. 77** The Offshore Constitutional Settlement, Western Australia. H. Brayford & G. Lyon (May 1995)
- No. 78** The Best Available Information - Its Implications for Recreational Fisheries Management. Workshop at Second National Fisheries Managers Conference, Bribie Island Queensland. F. Prokop (May 1995)
- No. 79** Management of the Northern Demersal Scalefish Fishery. J. Fowler (June 1995)
- No. 80** Management arrangements for specimen shell collection in Western Australia, 1995. J. Barrington & C. Campbell (March 1996)

- No. 81** Management Options (Discussion Paper) for the Shark Bay Snapper Limited Entry Fishery. Shark Bay Snapper Limited Entry Fishery Working Group, Chaired by Doug Bathgate (June 1995)
- No. 82** The Impact of the New Management Package on Smaller Operators in the Western Rock Lobster Fishery R. Gould (September 1995)
- No. 83** Translocation Issues in Western Australia. Proceedings of a Seminar and Workshop held on 26 and 27 September 1994. F. Prokop (July 1995)
- No. 84** Bag and Size Limit Regulations From Around Australia. Current Information as at 1 July 1995. Third Australasian Fisheries Managers Conference, Rottnest Island. F. Prokop (July 1995)
- No. 85** West Coast Rock Lobster Fishery Management Plan 1995 - Draft for Public Comment. Edited by M. Moran (August 1995)
- No. 86** A Review of Ministerial Policy Guidelines for Rock Lobster Processing in Western Australia from the Working Group appointed by the Minister for Fisheries and chaired by Peter Rich (December 1995)
- No. 87** Same Fish - Different Rules. Proceedings of the National Fisheries Management Network Workshop held as part of the Third Australasian Fisheries Managers Conference. F. Prokop
- No. 88** Balancing the Scales - Access and Equity in Fisheries Management - Proceedings of the Third Australasian Fisheries Managers Conference, Rottnest Island, Western Australia 2 - 4 August 1995. Edited by P. Summerfield (February 1996)
- No. 89** Fishermen's views on the future management of the rock lobster fishery. A report. Prepared on behalf of the Rock Lobster Industry Advisory Committee by The Marketing Centre. (August 1995)
- No. 90** A report on the issues effecting the use of the Dampier Archipelago. Peter Driscoll, Landvision Pty Ltd (March 1996)
- No. 91** Shark Bay World Heritage Property - Management Paper for Fish Resources. Kevin A Francesconi (September 1996)
- No. 92** Pearling and Aquaculture in the Dampier Archipelago - Existing and Proposed Operations. A report for public comment. Compiled by Ben Fraser (September 1996)
- No. 93** Shark Bay World Heritage Property - Summary of Public Submissions to the Draft Management Plan for Fish Resources. Kevin A Francesconi (September 1996)
- No. 94** Rock Lobster Industry Advisory Committee Report - Management arrangements for the Western Rock Lobster Fishery for the 1997/98 season. Frank Prokop (May 1997)
- No. 95** Australian Salmon and Herring Resource Allocation Committee. P McLeod & F Prokop (*in press*)
- No. 96** Summary Report of the Freshwater Aquaculture Taskforce (FAT) by Chris Wells (*in press*)
- No. 97** (*in press*)
- No. 98** A Pricing Policy for Fisheries Agencies - Standing Committee on Fisheries and Aquaculture Management Committee. P Millington (March 1997)
- No. 99** Management of the South Coast Purse Seine Fishery. J Fowler, R Lenanton, Kevin Donohue, M Moran & D Gaughan.
- No. 100** The Aquaculture of non-endemic species in Western Australia - Redclaw crayfish (*Cherax quadricarinatus*). Tina Thorne (June 1997)
- No. 101** Optimising the worth of the catch - Options and Issues. Marec Pty Ltd (September 1997)
- No. 102** Marine farm planning and consultation processes in Western Australia. Dave Overall (August 1997)

- No. 103** Future management of the aquatic charter industry in Western Australia by the Tour Operators Fishing Working Group (September 1997).
- No. 104** Management of the Houtman Abrolhos System (draft). Prepared by the Abrolhos Islands Management Advisory Committee in conjunction with Fisheries Western Australia (October 1997)
- No. 105** Plan for the Management of the Houtman Abrolhos Fish Habitat Protection Area (draft). Prepared by the Abrolhos Islands Management Advisory Committee in conjunction with Fisheries Western Australia (October 1997)
- No. 106** The impact of Occupational Safety and Health on the management of Western Australian Fisheries. Cameron Wilson (*in press*)
- No. 107** The Aquaculture of non-endemic species in Western Australia - Silver Perch (*Bidyanus bidyanus*). Tina Thorne (June 1997)
- No. 108** Issues affecting Western Australia's inshore crab fishery - Blue swimmer crab (*Portunus pelagicus*), Sand crab (*Ovalipes australiensis*). Cathy Campbell (September 1997)
- No. 109** Abalone Aquaculture in Western Australia. Cameron Westaway & Jeff Norriss (October 1997)
- No. 110** Proposed Voluntary Fishery Adjustment Scheme - South Coast Purse Seine Managed Fishery Report by Committee of Management (October 1997)
- No. 111** Management Options for Pilbara Demersal Line Fishing. Gaye Looby (December 1997)
- No. 112** Summary of Submissions to Fisheries Management Paper No. 108 - issues affecting Western Australia's inshore crab fishery. Compiled by Cathy Campbell (April 1998)
- No. 113** Western Rock Lobster Management - Options and Issues. Prepared by Kevin Donohue on behalf of the Rock Lobster Industry Advisory Committee. (June 1998)
- No. 114** A Strategy for the Future Management of the Joint Authority Northern Shark Fishery. Prepared by Tim Bray and Jo Kennedy. (June 1998)
- No. 115** Guidelines for granting Aquaculture Leases. Prepared by Fisheries WA, the Aquaculture Development Council & the Aquaculture Council of WA. (July 1998)
- No. 116** Future Management of the Aquatic Charter Industry in Western Australia - Final Report. By the Tour Operators Fishing Working Group (September 1998)
- No. 117** Management of the Houtman Abrolhos System. Prepared by the Abrolhos Islands Management Advisory Committee in conjunction with Fisheries Western Australia. (December 1998)
- No. 118** Plan for the Management of the Houtman Abrolhos Islands Fish Habitat Protection Area (Schedule 1)
- No. 119** Access to Wildstock for Aquaculture Purposes (not published)
- No. 120** Draft Management Plan for Sustainable Tourism at the Houtman Abrolhos Islands. Prepared by LeProvost, Dames and Moore for the Abrolhos Islands Management Advisory Committee in conjunction with Fisheries WA. (December 1998)
- No. 121** Future Directions for Tourism at the Houtman Abrolhos Islands - Draft for Public Comment. Prepared by LeProvost, Dames and Moore for the Abrolhos Islands Management Advisory Committee in conjunction with Fisheries WA. (December 1998)
- No. 122** Opportunities for the Holding/Fattening/Processing and Aquaculture of Western Rock Lobster (*Panulirus cygnus*). A discussion paper compiled by Fisheries WA. (November 1998)
- No. 123** Future directions for the Rock Lobster Industry Advisory Committee and the Western Rock Lobster Managed Fishery. A discussion paper prepared by Kevin Donohue on behalf of the Rock Lobster Industry Advisory Committee. (December 1998)

- No. 124** A Quality Future for Recreational Fishing in the Gascoyne. Proposals for Community Discussion. A five-year management strategy prepared by the Gascoyne Recreational Fishing Working Group (May 1999).
- No. 125** Changes to Offshore Constitutional Settlement Arrangements; North West Slope Trawl Fishery and Western Deepwater Trawl Fishery. A discussion paper by Fiona Crowe and Jane Borg (May 1999)[not published]
- No. 126** The South Coast Estuarine Fishery. A discussion paper by Rod Pearn and Tony Cappelluti. (May 1999)
- No. 127** The Translocation of Barramundi. A discussion paper by Makaira Pty Ltd.[July 1999]
- No. 128** Shark Bay Pink Snapper Managed Fisheries in WA
- No. 129** Review of the Western Australian Pilchard Fishery 12 - 16 April 1999. Prepared by K.L. Cochrane, Fisheries Resource Division, Food and Agriculture Division of the United Nations (November 1999)
- No. 130** Developing New Fisheries in Western Australia. A guide to applicants for developing fisheries Compiled by Lucy Halmarick (November 1999)
- No. 131** Management Directions for Western Australia's Estuarine and Marine Embayment Fisheries. A strategic approach to management (November 1999)
- No. 132** Summary of Submissions to Fisheries Management Paper No. 126 - The South Coast Estuarine Fishery - A Discussion Paper. Compiled by Rod Pearn (November 1999)
- No. 133** Abalone Aquaculture in Western Australia, A Policy Guideline (December 1999)
- No. 134** Management Directions for WA's Coastal Commercial Finfish Fisheries. Issues and proposals for community discussion (March 2000)
- No. 135** Protecting and Sharing Western Australia's Coastal Fish Resources. The path to integrated management. Issues and proposals for community discussion (March 2000)
- No. 136** Management Directions for WA's Recreational Fisheries (March 2000)
- No. 137** Aquaculture Plan for the Houtman Abrolhos Islands (April 2000)
- No. 138** Information on Quota Management of Rock Lobster Fisheries in South Australia, Tasmania and New Zealand. By Kevin Donohue and Eric Barker (May 2000)
- No. 139** A Quality Future for Recreational Fishing on the West Coast. Proposals for Community Discussion. A five-year management strategy prepared by the West Coast Recreational Fishing Working Group (June 1999)
- No. 140** Aquaculture Plan for the Recherche Archipelago, Western Australia. (June 2000)
- No. 141** Fish Protection Measures in Western Australia (June 2001)
- No. 142** Fisheries Environmental Management Plan for the Gascoyne Region (June 2002)
- No. 143** Western Rock Lobster. Discussion paper for seasons 2001/2002 and 2002/2003 (July 2000)
- No. 144** The Translocation of Brown Trout (*Salmo trutta*) and Rainbow Trout (*Oncorhynchus mykiss*) into and within Western Australia. Prepared by Jaqueline Chappell, contributions from Simon Hambleton, Dr Howard Gill, Dr David Morgan and Dr Noel Morrissy. (*not published, superseded by MP 156*)
- No. 145** The Aquaculture of non-endemic species in Western Australia - Silver Perch (*Bidyanus bidyanus*). As amended October 2000. Tina Thorne. This replaces Fisheries Management Paper No. 107.
- No. 146** Sustainable Tourism Plan for the Houtman Abrolhos Islands (February 2001)
- No. 147** Draft Bycatch Action Plan for the Shark Bay Prawn Managed Fishery (Full Report) (April 2002)
- No. 148** Draft Bycatch Action Plan for the Shark Bay Prawn Managed Fishery (Summary Report) (April 2002)

- No. 149** Final Plan of Management for the Lancelin Island Lagoon Fish Habitat Protection Area (March 2001)
- No. 150** Draft Plan of Management for the Cottesloe Reef Proposed Fish Habitat Protection Area (April 2001)
- No. 151** Inventory of the Land Conservation Values of the Houtman Abrolhos Islands (*in press*)
- No. 152** Guidelines for the Establishment of Fish Habitat Protection Areas (June 2001)
- No. 153** A Five-Year Management Strategy for Recreational Fishing on the West Coast of Western Australia. Final Report of the West Coast Recreational Fishing Working Group (August 2001).
- No. 154** A Five-Year Management Strategy for Recreational Fishing in the Gascoyne. Final Report of the Gascoyne Recreational Fishing Working Group (September 2001)
- No. 155** Plan of Management for the Cottesloe Reef Fish Habitat Protection Area (September 2001)
- No. 156** The Translocation of Brown Trout (*Salmo Trutta*) and Rainbow Trout (*Oncorhynchus mykiss*) into and within Western Australia (June 2002)
- No. 157** Policy for the Implementation of Ecologically Sustainable Development for Fisheries and Aquaculture within Western Australia. By W.J. Fletcher (May 2002)
- No. 158** Draft Plan of Management for the Miaboolya Beach Fish Habitat Protection Area (March 2002)
- No. 159** The Translocation of Barramundi (*Lates calcarifer*) for Aquaculture and Recreational Fishery Enhancement in Western Australia. By Tina Thorne.
- No. 160** The Introduction and Aquaculture of Non-endemic Species in Western Australia: the 'Rotund' Yabby *Cherax rotundus* and the All-male Hybrid Yabby. A Discussion Paper. (June 2002)
- No. 161** Plan of Management for the Miaboolya Beach Fish Habitat Protection Area (September 2002)
- No. 162** Reseeding of grazing gastropods and bivalves into the marine environment in Western Australia – a discussion paper. By Jane Borg.
- No. 163** Review of recreational take of coral in Western Australia – a discussion paper October 2002.
- No. 164** Report of the Mackerel Independent Advisory Panel to the Executive Director, Department of Fisheries, on criteria for access to, and management arrangements for, the proposed Mackerel Fishery (Interim) Management Plan (November 2002)
- No. 165** Report to the Minister for Agriculture, Forestry and Fisheries by the Integrated Fisheries Management Review Committee (November 2002)
- No. 166** Fisheries Statutory Management Authority Inquiry. A background paper (February 2003)
- No. 167** Draft Fisheries Environmental Management Plan for the Northern Region (*in press*)
- No. 168** Aboriginal Fishing Strategy: Report to the Minister for Agriculture, Forestry and Fisheries by the Hon E. M. Franklyn QC, Chairman of the Aboriginal Fishing Strategy Working Group
- No. 169** Hardy Inlet discussion paper (*in press*)
- No. 170** Management of the proposed Geographe Bay Blue Swimmer and Sand Crab Managed Fishery. By Jane Borg and Cathy Campbell (August 2003)
- No. 171** Draft Aquaculture Plan for Shark Bay (*in press*)
- No. 172** Draft Aquaculture Plan for Exmouth Gulf (*in press*)
- No. 173** Draft Plan of Management for the proposed Point Quobba Fish Habitat Protection Area (*in press*)